

Energy Trust Board of Directors Meeting

September 30, 2015

138th Board Meeting

Wednesday, September 30, 2015
421 SW Oak Street, Suite 300, Portland, Oregon



Agenda		Tab	Purpose
10:30am	Executive Session <i>The board will meet in Executive Session pursuant to bylaws section 3.19.1 to discuss internal personnel matters.</i>		
<i>The Executive Session is not open to the public.</i>			
12:15pm	Board Meeting—Call to Order (Ken Canon) <ul style="list-style-type: none">• Approve agenda General Public Comment The president may defer specific public comment to the appropriate agenda topic.		
	Consent Agenda	1	Action
	The consent agenda may be approved by a single motion, second and vote of the board. Any item on the consent agenda will be moved to the regular agenda upon the request from any member of the board. <ul style="list-style-type: none">• July 29 Board meeting minutes• Amend Authority to Commit Incentives Policy—R752• Amend Program Approval Process Policy—R753• Amend Above-Market Cost Policy—R754		
12:20pm	Committee Reports <ul style="list-style-type: none">• Audit Committee (Ken Canon)• Executive Director Transition Committee (Ken Canon)• Compensation Committee (Dan Enloe)• Finance Committee (Dan Enloe).....• Evaluation Committee (Alan Meyer)• Policy Committee (Roger Hamilton).....• Strategic Planning Committee (Mark Kendall).....	3 2 4 5	Info Info Info Info
1:00pm	Groundwork for Budget & Action Planning	Link	Info
	<ul style="list-style-type: none">• Preview of the Draft Seventh Northwest Power Plan (Tom Eckman, Director of the Power Division of the Northwest Power and Conservation Council)		
2:00pm	Break		
2:10pm	Guest Presentation <ul style="list-style-type: none">• Northwest Energy Efficiency Alliance Annual Update (Julia Harper, Director of Market Strategy and Execution for NEEA)		
2:40pm	Staff Report & Feature Presentations <ul style="list-style-type: none">• Highlights (Margie Harris)• Cybersecurity (Debbie Menashe, Scott Clark)• Collaboration & Innovation in Marketing (Sue Fletcher, Shelly Carlton, Susan Jowaiszas, Susan Jamison)		
4:05pm	Adjourn		
The next meeting of the Energy Trust Board of Directors will be held Wednesday, November 4, 2015 at 12:15 pm at Energy Trust of Oregon, 421 SW Oak Street, Suite 300, Portland			

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- September 9 CAC meeting notes—*notes will be e-mailed prior to board meeting*

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- Market Indicators Report

Tab 8 Glossary of Energy Industry Acronyms and Terminology

Preview of the Draft Seventh Northwest Power Plan

Refer to section on energy efficiency resources on pages 9-15 of Chapter 3:

Link <http://www.nwcouncil.org/media/7149539/6.pdf>

Tab 1

Board Meeting Minutes—137th Meeting

July 29, 2015

Board members present: Susan Brodahl, Ken Canon, Heather Beusse Eberhardt, Dan Enloe, Roger Hamilton, Mark Kendall, Debbie Kitchin, Alan Meyer, John Reynolds, Lyndsey Hardy, Warren Cook (Oregon Department of Energy, special advisor), Mark Kendall (by phone)

Board members absent: Melissa Cribbins, Eddie Sherman, John Savage (OPUC ex officio)

Staff attending: Margie Harris, Ana Morel, Debbie Menashe, Amber Cole, Steve Lacey, Fred Gordon, Peter West, Courtney Wilton, Marshall Johnson, Oliver Kesting, Kate Scott, Julianne Thacher, Brooke Graham, Andrew Lunding, Andrew Shepard, Mike Bailey, Phil Degens, Thad Roth, Jed Jorgensen, Susan Badger-Jones, Karen Chase, Scott Clark, Shane Vaughn, Sam Julien, Brian Newman, Asher Atkinson, Brian Rogers, Scott Swearingen, Ally Hoffman

Others attending: Jim Abrahamson (Cascade Natural Gas), Don Jones, Jr. (Pacific Power), Anne Snyder-Grassman (Portland General Electric), Elaine Prause (Oregon Public Utility Commission), John Charles (Cascade Policy Institute), Kari Greer (Pacific Power), Jeffrey Schwartz (ICF), Janice Boman (Embertec), Bob Stull (CLEAResult), Ken Nichols (EQL Energy), Mark Farrell (Oregon Solar Energy Industries Association)

Business Meeting

President Debbie Kitchin called the meeting to order at 12:15 p.m. Reminder that consent agenda items can be changed to regular agenda items at any time.

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 request from any member of the board.

MOTION: Approve consent agenda

Consent agenda includes:

- 1) May 20 Board meeting minutes
- 2) June 5-6 Board strategic planning workshop minutes
- 3) Amend Farmers Irrigation District Contract—R749

Moved by: Alan Meyer

Seconded by: Dan Enloe

Vote: In favor: 11

Abstained: 0

Opposed: 0

RESOLUTION 749

AUTHORIZING AN INCREASED INCENTIVE FOR THE FARMERS IRRIGATION DISTRICT PLANT 2 HYDROPOWER PROJECT

WHEREAS:

1. In December 2013, the board approved an \$825,000 incentive for the Farmers Irrigation District (FID) Plant 2 hydropower project;
2. Before seeking Energy Trust funds for this project, FID sought to identify any changes that might be needed for interconnection. At the time, FID was told by the utility that no changes

would be needed. In January 2015, FID was told instead that the project would be a material change and an interconnection study would be required.

3. A study was completed and equipment upgrades were requested to enable the utility to acquire data. Study, equipment and other associated costs amount to an estimated \$150,000.
4. Energy Trust does not typically change participant incentives once they are agreed upon. However, these expenses would have been included in calculating the project's above-market cost and resulting incentive had they been known; FID cannot be faulted for not knowing of them; the utility has worked closely with FID to find a solution, and supports an incentive increase.

It is therefore **RESOLVED** that the executive director is authorized to increase the incentive for the Farmers Irrigation District (FID) Plant 2 hydropower project by \$75,000 to offset costs associated with interconnection studies and related equipment upgrades.

Energy Programs

Multifamily Program Management Contractor Agreement with Lockheed Martin—R750, Kate Scott

Kate Scott, Commercial program manager, presented a proposal to approve a contract with Lockheed Martin for program management services for Energy Trust's Existing Multifamily program. Lockheed Martin has been delivering the Existing Multifamily program since 2011.

Following a competitive request for solicitations, staff and external reviewers identified several strengths of Lockheed Martin, including very high customer satisfaction. In its proposal, Lockheed Martin provided strategies for expanding participation by hard-to-reach customers, including increased outreach to rural areas through a dedicated representative to Central, Eastern and Southern Oregon, and strategies for overcoming each market segment's barriers to participation. Lockheed Martin also proposed a 3 percent reduction in delivery dollars compared to its 2015 budget and a 5 percent increase in savings and incentives.

The board asked if Lockheed Martin provided new ideas, and Kate responded that they recommended several new strategies.

The board asked if Energy Trust debriefed with the second choice candidate to provide feedback, and Kate responded that Energy Trust debriefed with all candidates.

RESOLUTION 750

AUTHORIZE A PROGRAM MANAGEMENT CONTRACT FOR THE MULTIFAMILY PROGRAM

WHEREAS:

1. With assistance from a selection committee including outside parties, staff has conducted a fair and open procurement process to select a program management contractor to manage Multifamily program services for the next 3-5 years;
2. Lockheed Martin was selected and contract terms are being negotiated;
3. Staff has assumed and estimated a total first-year program management budget for 2016, including first-year incentives, contracted delivery, and possible performance compensation of approximately \$9.9 million, which includes approximately \$4 million in delivery, \$5.8 million in incentives; and
4. Actual savings and costs will be reviewed by the Energy Trust board as part of the annual budget and action plan process. Based on current assumptions, staff estimates the following program savings and fully loaded costs in 2016:

	Electric	Gas
Savings	25,378,240 kWh	316,199 therms
\$/Unit Savings	\$0.34/kWh	\$3.65/therm
Levelized Cost	\$0.035/kWh	\$0.36/therm

IT IS THEREFORE RESOLVED:

1. **Subject to determination of a final contract amount based on the board-approved 2016 budget, the executive director or her designee is authorized to enter into a contract with Lockheed Martin to manage the Multifamily program for an initial term from January 1, 2016 through December 31, 2018.**
2. **First-year contract costs and savings goals included in the contracts shall be consistent with the board-approved 2016 budget and two-year action plan. Thereafter, the contract(s) may be amended consistent with the board's annual budget and action plan decisions and the executive director or her designee is authorized to sign any such contract amendments.**
3. **The final contract may include a provision allowing staff to offer one-year extensions beyond the initial term if the program management contractor meets certain established performance criteria. In no event would the total term of the contract plus extensions exceed five years.**
4. **Before extending this contract beyond the initial term, 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 or her designee is authorized to sign any such contract extensions.**

Moved by: John Reynolds
 Vote: In favor: 11
 Opposed: 0

Seconded by: Ken Canon
 Abstained: 0

CLEARResult Contract Extension as Existing Homes Program Management Contractor, Marshall Johnson

Marshall Johnson, Existing Homes program manager, presented a proposal to extend the Existing Homes program management contract with CLEARResult Consulting, Inc. for one year, through December 31, 2016. This would be the second one-year extension out of three possible one-year extensions. The Existing Homes program provides technical assistance and financial incentives for energy-efficiency improvements in single-family and manufactured homes.

In August 2012, the board authorized a program management and delivery services contract beginning January 1, 2013, with a first-year budget of \$7.2 million for Oregon services and \$250,000 for Washington services. The contract was amended in 2014 with budget and savings goals consistent with Energy Trust's 2015 Budget and 2015-2016 Action Plan. The 2015 budget is \$6.6 million for Oregon and \$267,000 for Washington services. The original contract was with Fluid, subsequently acquired by CLEARResult.

CLEARResult demonstrated success in all five contract extension criteria, including cross-program referrals, project pipeline, innovation, teamwork and satisfactory execution of statement of work deliverables.

The board asked about efforts to reduce program delivery costs. Marshall described recent program improvements to lower delivery costs, including discontinuing in-home review services, which cost \$250 per home, and offering online Home Energy Review services, which cost \$25 per home. In addition,

Energy Trust and CLEAResult transitioned to online and automated incentive processing, significantly reducing operational costs. Marshall described additional efforts to reduce program delivery costs, including field-based quality assurance, mid-stream strategies, leveraging trade ally contractors to reach customers and using utility data to target marketing for potential customers.

The board asked about using CLEAResult's contract extension as an opportunity to renegotiate terms, as was suggested in the last board meeting. Marshall explained that CLEAResult's budget and goals will be negotiated during the 2016-2017 Budget and Action Plan process.

The board asked if savings will become harder to achieve in the residential sector over time. Marshall described the Residential Sector Strategic Plan, which indicates that available cost-effective savings are not expected to grow in the next five years. Energy Trust's Existing Homes, New Homes and Existing Multifamily programs serve some of the same customers, and in the next few years Energy Trust may consider consolidating delivery of services to these residential customers to increase cost-effectiveness. Program management contracts may transition to program delivery contracts, which will make the sector more nimble to adapt to changing federal standards and continue to deliver cost-effective services through a variety of strategies.

The board asked about the residential sector's low incentive payments to date in 2015. Marshall explained that Program Management Contractors (PMCs) receive performance compensation for achieving mid-year targets. CLEAResult achieved its mid-year targets and shifted savings earlier in the year. Peter explained that some program offerings are not delivered through a PMC, such as the Existing Homes Home Performance with ENERGY STAR® track. Energy Trust does not hold PMCs accountable for savings delivered from other agents in the market. Fewer Home Performance projects have completed so far this year, which explains the slightly low incentive spending through the second quarter. Marshall noted that Existing Homes achieved more savings at a lower cost through Energy Saver Kits. In addition, weatherization activity was lower than usual due to a mild winter and spring. These shortfalls were offset by other successes. Marshall also noted that a behavioral offering originally budgeted for \$2 million was put on hold.

The board had no objections to the contract extension.

ICF Contract Extension as Existing Buildings Program Management Contractor, Oliver Kesting

Oliver Kesting, Commercial sector lead, presented a proposal to extend the program management contract with ICF Resources, LLC (ICF) for Energy Trust's Existing Buildings program for one year, through December 31, 2016. This would be the second one-year extension out of three possible one-year extensions. The Existing Buildings program provides technical assistance and financial incentives for existing commercial businesses, nonprofits and government buildings in all market sectors throughout Energy Trust territory.

In August 2012, the board authorized a program management contract with ICF for 2013 and 2014. In July 2014, the contract was extended through 2015. The 2015 budget is \$9.2 million in Oregon and \$187,000 in Washington.

ICF performed well in all five contract extension criteria, including cross-program referrals, project pipeline, innovation, teamwork and satisfactory execution of statement of work deliverables. ICF excelled in cross-program referrals by proactively coordinating across Energy Trust programs and offerings, including New Buildings, Production Efficiency, Solar and Strategic Energy Management (SEM).

In 2015, ICF's pipeline of savings is promising in Pacific Power and Cascade Natural Gas territories, with savings projected at 126 percent and 120 percent of goals, respectively. ICF still needs to add to its pipeline of expected projects to achieve gas efficiency goals in PGE and NW Natural Oregon and

Washington territories, where energy savings are projected at 92 percent, 80 percent and 61 percent of goal, respectively.

In early 2015, ICF conducted a comprehensive review of the Existing Buildings program and identified ways to improve program efficiency, streamline customer participation and expand program offerings to achieve aggressive savings targets in a mature market. Energy Trust staff is working with ICF to raise gas incentives, which will increase savings in both gas and electric territories through dual-fuel projects.

ICF has targeted small- and medium-sized businesses, developed administrative efficiencies and come very close to meeting aggressive goals.

The board observed that results seem mediocre, and asked if Energy Trust staff are working with the PMC to achieve goals. Oliver explained that efforts to improve results are underway, as a result of an evaluation completed early this year.

The board asked if Energy Trust saw more opportunities for energy saving in rural areas. Oliver responded that comprehensive custom projects have already been completed in cities but not in rural areas.

The board asked about distributor lighting buy-down efforts. Oliver explained that buy-down efforts are upstream and midstream approaches that involve working with businesses and distributors rather than with customers. Jeffrey Schwartz, senior manager at ICF, explained that customers receive the same discount with buy-down offerings because the distributors reduce the sale price. The buy-down is currently for screw-in LED bulbs.

The board asked about areas of improvement for ICF. Peter responded that ICF brought in additional Eastern Oregon staff to better serve rural customers, which has been effective. Oliver noted that ICF also added staff to work with Energy Trust's Planning staff to develop new measures.

The board asked about high Existing Buildings incentive spending through the second quarter, even though progress to goals was low. Oliver explained that the budget incentive spending number includes other offerings besides those provided by ICF, such as commercial SEM. Peter added that incentives are tracking proportional to savings goals. Existing Buildings has some delivery strategies that are more expensive than other Energy Trust programs, such as direct installation efforts. Going forward, strategies will become more expensive and the program will focus on driving down delivery costs.

The board had no objections to the contract extension.

The board appreciated that the board packet included a two-page summary of all PMC and Program Delivery Contractor (PDC) contracts, and members requested to see this table periodically as contracts change.

The board asked why expiration dates for all PDC contracts are aligned. Peter responded that this is intentional. These PDCs serve different territories, so simultaneous contract expiration dates allow PDCs to expand contract territories during rebid processes.

Committee Reports

Audit Committee, Ken Canon

Energy Trust's three-year contract with Moss Adams for annual financial auditing services has expired. Energy Trust issued a request for proposals (RFP) and received submissions from several accounting firms and interviewed one firm. Based on strong performance, the committee selected Moss Adams for another three-year contract.

To proactively protect ratepayer investments, the committee asked Moss Adams for additional auditing work this year, specifically to investigate PMC check processing procedures and billing hours. Overall results have been positive, and Moss Adams delivered recommendations.

The board noted that Energy Trust used its previous audit firm for six years. Ken affirmed the importance of soliciting new contractors periodically.

Executive Director Transition Committee, Ken Canon

The committee decided to announce initial desired traits and characteristics for a new executive director. Ken asked for board input on these traits and noted that a discussion is planned for the September board meeting. The committee also developed an outreach plan, which includes engaging with and informing the public utility commission, utilities, staff, program management contractors and trade allies.

The board asked if an executive director discussion is appropriate use of executive session time. Ken responded that the committee determined that discussion of this topic is appropriate and consistent with criteria for executive sessions. Debbie Menashe, Energy Trust general counsel, confirmed this approach.

The board recommended gaining insights from professional recruitment consultants now, even if one is not ultimately hired.

The board discussed the appropriate amount of transition time for both Margie and the new executive director to work at Energy Trust. Margie clarified that Energy Trust plans a three-month overlap, from October 1 through December 31, 2016, during the 2017 Budget and 2017-2018 Action Plan process.

Evaluation Committee, Alan Meyer Alan deferred an update to the next meeting.

Finance Committee, Dan Enloe

Incentive spending is strong and program reserves have declined, as expected and planned. Existing Buildings, Production Efficiency and Solar programs incentive expenditures were more than expected, while other programs spent less incentives than expected. Overall, spending is over budget.

Peter explained that New Buildings spent more than budgeted because the spring construction season was accelerated by unusually mild weather. Existing Buildings and Production Efficiency spending are expected to align with budget by year-end. Margie added that staff were asked to budget more conservatively in 2015 and to rely on reserves as needed.

Dan noted investment funds are diversified well. The board inquired if investment earnings are considered as part of Energy Trust's OPUC administrative cost performance measure. Margie responded that investment earnings are separate and do not impact OPUC performance measures.

Policy Committee, Roger Hamilton

The Renewable Energy Certificate (REC) policy discussion was postponed to the September board meeting to allow more time for feedback to be solicited from the Renewable Energy Advisory Council.

Strategic Planning Committee, Mark Kendall

The committee was pleased with the June board retreat content and logistics, and discussed potential guest speakers for future retreats. The committee appreciated strategic input from Ann Kohler, and John Volkman's summary of actionable next steps. The committee thanked Margie for follow-up discussions with board members who were not able to attend the retreat. Margie noted that Ana Morel is already working on scheduling the 2016 retreat.

Energy Trust Planning staff will work with the committee to discuss the basis for measuring new energy technology and metrics for expanding participation. Staff also will report back to the committee on assessments of new opportunities.

In response to the 2014 Management Review, Margie is working with staff to report on key operations process areas for continuous improvements, and our work on metrics.

The board took a break from 1:28 p.m. to 1:40 p.m. Debbie left the meeting at 1:50 p.m.

Ken began facilitation of the meeting.

Staff Report

Highlights, Margie Harris

Margie presented Energy Trust's 2014 Public Annual Report, which features some of the thousands of customers Energy Trust served in 2014, including Edward C. Allworth's Veteran's Home in Lebanon, Stanley Hydraulics in Milwaukie and homeowner Priscilla Martin in Bend. Margie provided a summary of the cumulative benefits Energy Trust has delivered through its investment of \$1.1 billion to date.

Margie summarized early highlights from Q2 2015, which indicate that the organization is on track with expectations in all utility territories. Energy Trust saw strong savings from new residential and commercial construction and LED sales. Growth continued for small commercial projects. Marketing efforts resulted in high demand for Energy Saver Kits. Two renewable energy projects completed construction in Q2, and demand for residential offerings and commercial solar installations was very high. As planned, revenues were very close to budget and significantly less than last year, following efforts to reduce reserves.

Energy Trust is beginning work on the 2016 Budget and 2016-2017 Action Plan, which starts with sector strategic plans that inform sector and program annual budgets. Margie summarized the stages of Energy Trust's annual budget and action plan development cycle, which begins in July and completes in December. This year, Energy Trust has increased engagement with the Oregon Department of Energy.

At the June board strategic planning workshop, Energy Trust shared information about the Diversity Initiative now underway. Building upon preliminary research completed in 2014, more detailed research is currently being completed to inform our understanding about participation and where we have clear opportunities to expand our efforts. Results are expected in December. Margie described other dimensions of the initiative, including a cultural competency survey distributed to board and staff by a consultant, the first step in an assessment process to eventually help shape organization initiative strategies.

Margie described Energy Trust's recent integrated marketing campaign, including print, online, television, public relations, social media and a dedicated website. LED lighting is promoted as the hook to engage customers, given the current excitement around LEDs and their affordability. The campaign includes cooperative marketing opportunities for trade allies, and has been successful so far. Margie presented the television commercial, and several board members noted that they have seen it.

Integrated Solutions Implementation quarterly update, Scott Clark

Margie acknowledged Scott Clark, IT director, and the IT team for the upcoming completion of this comprehensive and critical IT project effort.

Scott summarized the Integrated Solutions Implementation (ISI) project, which is designed to modernize existing core applications and incorporate business process improvements. The ISI project was initiated to support program goals through process improvements, increased data quality, and systems improvements to modernize and strengthen integration among Energy Trust systems and with external

parties. The project consisted of two phases. Within Phase 2, there were five major project milestones or releases. The fifth and final release will occur in August. Four of the five releases of functionality were launched in the first six months of 2015. Feedback on the new system has been positive.

Phase 2 is currently forecasting expenditures for June 2015 through August 2015 to be \$385,000, bringing the total cost of the project to approximately \$2,042,000, an anticipated overage of 2.1 percent. Several factors contributed to the project being slightly over budget, including its length and complexity, an expanded scope and significant staff turnover due to a very competitive Portland market for IT personnel. This turnover led to additional costs for project delays, on-boarding new staff and greater reliance on contracted resources.

Scott thanked and introduced several developers who made significant contributions to the project, including Shane Vaughn, Sam Julien, Brian Newman, Asher Atkinson, Brian Rogers and Scott Swearingen.

The board expressed appreciation for this significant project, and asked when the organization will need to start the next big IT project. Scott assured the board that the ISI solution uses very stable architecture and can be effective for many years.

The board suggested Energy Trust consider implementing electronic check payments, and acknowledged that this will be challenging, both for Energy Trust and for other entities. The first stages of this effort are already underway with electronic payments to some of our PMCs.

Legislative update, Debbie Menashe and Jay Ward

Debbie Menashe, general counsel, and Jay Ward, senior community relations manager, presented an update on bills Energy Trust watched in the 78th Oregon legislative session.

As a reminder, Energy Trust tracks on a wide variety of legislative issues, provides information upon request and does not take a position on any pending or potential legislation or ballot initiatives. Jay described several bills that could have impacted Energy Trust, but did not pass. A special session prior to the 2016 state legislative session is not expected, and staff will continue to monitor any initiatives that may impact Energy Trust.

Debbie added that staff also tracked some relevant non-energy bills. HB 3025 was passed to prevent employers from asking prospective candidates about felony convictions on job applications, and will go into effect on January 1, 2016. Energy Trust will update its employment application to omit this question. SB 454 instituted a paid sick leave requirement, and Energy Trust is already in compliance. On the federal level, the fair labor standards act has new regulations that change criteria for classifying exempt and nonexempt hourly employees, which may impact Energy Trust.

The board asked what bills Energy Trust anticipates may come up in the 2016 session, such as a transportation funding bill. Jay responded that another attempt to pass a transportation funding bill may be likely, and it may or may not be coupled with a repeal of SB 324.

The board asked if HB 2193, which directs electric companies to procure energy storage systems, will impact Energy Trust. Jay responded that the impact is not clear.

Feature Presentation

How we do evaluations, Phil Degens

Phil Degens, evaluation manager, presented on Energy Trust's evaluation process, and described three recent evaluations. Energy Trust conducts about 60 to 70 evaluations per year. The purpose of evaluations is to provide credible and unbiased information to decision-makers, including Energy Trust programs, board and OPUC. Evaluations are typically bid out to third-party, independent contractors.

The board asked how evaluation firms are selected. Phil responded staff release a competitive request for proposals to a list of relevant contractors. Energy Trust also has a list resulting from a request for qualifications, and staff may send a short RFP to two or three select, specialized firms from this list of qualified firms. The evaluation team reviews and scores proposals.

The evaluation process includes developing a scope, hiring a third-party contractor if necessary, the contractor performing the evaluation, staff reviewing draft results and presenting them to the Board Program Evaluation Committee (a.k.a., Evaluation Committee), staff writing a response memo, and staff sharing final results with the organization and the public by posting a final report with the response memo on Energy Trust's website.

Types of evaluations include process evaluations, which document and make recommendations for improving program processes, and impact evaluations, which determine realized program savings and average realization rates. Realization rates impact true-up of prior year savings, which is performed on an annual basis. Impact evaluations are focused on energy savings and outcomes. Energy Trust also surveys program participants to determine free ridership and customer satisfaction.

The board asked about the willingness of customers to participate in surveys. Phil responded that because Energy Trust follows up promptly after participation and surveys are short, customers are typically receptive.

The board asked about Energy Trust's focus on evaluation compared to similar organizations. Phil responded that Energy Trust's evaluation efforts are very strong, and its database is robust, accurate and goes all the way back to 2002. Energy Trust leads in this area as many organizations do not true up savings on an annual basis.

The board asked how the Evaluation Committee has evolved over time. Alan noted that he has learned how the evaluation process is a valuable way to examine and improve programs and understand results. Evaluation is critical to helping Energy Trust reach goals. Margie noted that Energy Trust's evaluations are more rigorous than in other organizations, such as in Vermont and Wisconsin. The annual true up of savings is important because it validates the energy resource Energy Trust has acquired to meet integrated resource plan targets.

Fred emphasized that the Evaluation Committee is critical to guiding effective budgeting for evaluation activities. Multiple experts and perspectives help staff make decisions about what to evaluate.

The board asked about potential research to assess new strategies, such as real-time metering and smart meters. Phil responded that staff research emerging technologies, and pilots evaluate new types of efforts. Fred noted the Northwest Energy Efficiency Alliance's (NEEA's) work on emerging technologies. With thermostats, Energy Trust may move into demand management activities and collaborate with utilities.

Adjourn

The meeting adjourned at 3:30 p.m.

The next regular meeting of the Energy Trust Board of Directors will be held Wednesday, September 30, 2015, at 12:15 p.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, Oregon.

Alan Meyer, Secretary

Board Decision

Amend Policy on Commitment of Incentive Funds for Payment of Energy Efficiency Projects in Future Years

September 30, 2015

Summary

Amend the policy to remove a provision in the current policy that limits individual incentive commitments to two years and to clarify that some of the policy's limitations apply to programs as a whole (that only so much of a program's budget may be projected into future years), and other policy limitations apply to individual financial incentive commitments (e.g., subject to milestones, tracking and other requirements).

Background and Discussion

The policy was first adopted in 2006, and amended in 2006 to authorize programs to commit funds from a current year's budget to projects in future years. As Energy Trust programs have developed, some Commercial and Industrial program designs, such as strategic energy management, contemplate program engagement and incentive commitments of more than two years.

Commercial and industrial projects may involve longer-term commitments. The proposed changes would permit such commitments provided the overall limitation on programs budgets and the commitment is consistent with our contracting policies and the OPUC grant agreement, which requires us to provide notice to the OPUC of financial commitments of more than two years.

The Policy Committee reviewed staff's suggested revisions at their committee meeting on September, 1, 2015 and recommended that the policy be recommended for approval by the full board in the consent agenda at the next full board meeting.

Recommendation

Amend the Commitment of Incentives in Future Years to permit commitments of incentives for longer than two years, so long as contracting and OPUC notice requirements are met and to clarify that certain parts of the policy apply to program incentive budgets as a whole, and other parts apply to individual project incentive commitments.

RESOLUTION 752
AMEND POLICY ON COMMITMENT OF INCENTIVE FUNDS FOR PAYMENT OF ENERGY EFFICIENCY PROJECTS IN FUTURE YEARS

4.21.000_ Authority to Commit Incentive Funds for Payment of Energy Efficiency Projects in Future Years

WHEREAS:

1. Energy Trust continues to identify improved ways of managing program budgets and maintain accountability.
2. Beginning in 2005, the board approved changes to the annual budget process, program monitoring and reporting of savings and budget expenditures and provided staff the flexibility to shift funds within programs.
3. ~~Staff has proposed an additional improvement to best serve~~The Board later modified the policy to accommodate customers with complex multi-year projects and incentive payment requirements in future years.
4. The Board now wishes to modify the policy to (a) clarify that some of the policy's limitations apply to programs as a whole and others to individual incentive commitments, and (b) allow individual commitments beyond two years if the overall limitation on programs budgets is respected and the commitment is consistent with Energy Trust contracting policies and the OPUC grant agreement

.

It is therefore RESOLVED:

1. ~~For Staff may design~~ energy efficiency programs to pay financial incentives over several years, provided that:
 1. Staff reviews such programs annually and ensures that not more than
 - ~~Up to 75%~~ of the program's budgeted financial incentive funds are projected to be available-committed in the following year; and not more than
 - ~~Using these projected program incentive funds as a base line, up to 25% toward projects expected to be available in the third succeeding year.~~
 2. ~~This authority is subject to the following requirements: (a) In addition, any long-term financial incentive commitments made to individuals or individual entities shall be:~~
 - (a) ~~such commitments shall be~~ consistent with milestones or conditions in any reservation, tracking or other systems or requirements applicable to these programs;
 - (b) ~~funding commitments and reservation of future financial incentives shall be made for no more than two years~~subject to all Energy Trust contracting requirements and policies, and the Energy Trust-OPUC grant agreement;
 - (c) ~~all financial incentive commitments will be~~ tracked and reflected appropriately in forecasting reports; and
 - (d) ~~all future financial incentive commitments will be~~ displayed by the program and incorporated into the annual budget process.

CLEAN VERSION:**4.21.000_ Authority to Commit Incentive Funds for Payment of Energy Efficiency Projects in Future Years****WHEREAS:**

1. Energy Trust continues to identify improved ways of managing program budgets and maintain accountability.
2. Beginning in 2005, the board approved changes to the annual budget process, program monitoring and reporting of savings and budget expenditures and provided staff the flexibility to shift funds within programs.
3. The Board later modified the policy to accommodate customers with complex multi-year projects and incentive payment requirements in future years.
4. The Board now wishes to modify the policy to (a) clarify that some of the policy's limitations apply to programs as a whole and others to individual incentive commitments, and (b) allow individual commitments beyond two years if the overall limitation on programs budgets is respected and the commitment is consistent with Energy Trust contracting policies and the OPUC grant agreement

It is therefore RESOLVED:

Staff may design energy efficiency programs to pay financial incentives over several years, provided that:

1. Staff reviews such programs annually and ensures that not more than 75% of the program's budgeted financial incentive funds are projected to be committed in the following year, and not more than 25% in the succeeding year.
2. In addition, any long-term financial incentive commitments made to individuals or individual entities shall be:
 - (a) consistent with milestones or conditions in any reservation, tracking or other systems or requirements applicable to these programs;
 - (b) subject to all Energy Trust contracting requirements and policies, and the Energy Trust-OPUC grant agreement;
 - (c) tracked and reflected [appropriately](#) in forecasting reports; and
 - (d) displayed by the program and incorporated into the annual budget process.

Moved by:

Seconded by:

Vote: In favor:

Abstained:

Opposed:

Board Decision

Amend Program Approval Policy

September 30, 2015

Summary

Amend the policy to (1) delete references to stretch versus conservative goals, which are no longer relevant and (2) make certain minor editorial changes.

Background and Discussion

This policy was first adopted by the board in 2005. It amended the prior organizational practice of authorizing programs in board resolutions and having to go back to the board whenever program details needed to change. The current policy manages programs and program modifications largely through the budget process. The policy is now up for its regular three-year review, and minor editorial changes are suggested, along with deletion of references to stretch versus conservative goals, which are no longer relevant.

The Policy Committee reviewed staff's suggested revisions at their committee meeting on September 1, 2015 and recommended that language staff suggested be deleted regarding managing programs to achieve "stretch goals" recognizing that only "conservative goals" may be achieved was too extensive. The committee recommended that the policy include language requiring that programs be managed to "achieve annual board-approved goals." Staff included the suggested language, and with that, the policy was recommended by the committee for approval by the full board in the consent agenda at the next full board meeting.

Recommendation

Amend the Program Approval Policy to update language with minor editorial changes and to delete references to stretch versus conservative goals. o permit commitments of incentives for longer than two years, so long as contracting and OPUC notice requirements are met and to clarify that certain parts of the policy apply to program incentive budgets as a whole, and other parts apply to individual project incentive commitments.

**RESOLUTION 753
AMEND PROGRAM APPROVAL POLICY**

Purpose:

1. ~~Historically~~Initially, the Board has approved programs in resolutions that ~~specify~~specified projected energy savings and cost/aMW and estimated budget allocations for such items as incentives, marketing, administration and evaluation. Specific terms of program management ~~have typically been~~were addressed in separate resolutions authorizing program management contracts.
2. Experience has ~~shown~~demonstrated that if staff and contractors adhered to the original terms and conditions identified in Board resolutions authorizing programs, the programs ~~may lose~~lost momentum while staff seeks approval to change program ~~delivery, and considerable Board and staff time are consumed in complex and confusing adjustments~~parameters.
3. ~~Energy Trust has enough experience with these programs to warrant revising~~In 2005, the Board revised this process to make it more efficient.

It is therefore RESOLVED:

1. The Energy Trust of Oregon, Inc., Board of Directors hereby authorizes all existing programs to:
 - a. Operate under a not-to-exceed budget cap established by the Board in the annual budget approval process or by special resolution; staff is authorized to manage the program within this budget until the next annual budget review; staff may move budgeted funds from one program to another within the same program sector (residential, commercial, industrial and renewable energy) without board approval.
 - b. Be managed to achieve ~~a stretch energy savings and cost/aMW~~annual board-approved goals, ~~recognizing that actual performance may achieve only a more conservative level below which the program would be reevaluated.~~
2. The Board will continue to review and approve program management contract terms.
3. Staff will provide the Board with quarterly status reports based on energy savings by program and sector (not individual contract). Reports would identify issues regarding program performance, such as:
 - a. a program's long-term cost-effectiveness is trending in a negative direction.
 - b. the program is not expected to achieve significant savings over its life.
 - c. a quarterly report shows that a program is trending below ~~the conservative~~its goal, the Board may call for an action plan to address the short-fall.
4. Staff will provide an update to the board on any movement of funds from one program to another at the next board meeting following such movement.
5. The Board retains discretion to modify or discontinue a program if it is not meeting expectations.
6. The Board will use the budget and action plan process to review, modify and adjust program goals and budget caps.

CLEAN VERSION**Purpose:**

1. Initially, the Board has approved programs in resolutions that specified projected energy savings and cost/aMW and estimated budget allocations for such items as incentives, marketing, administration and evaluation. Specific terms of program management were addressed in separate resolutions authorizing program management contracts.

2. Experience has demonstrated that if staff and contractors adhered to the original terms and conditions identified in Board resolutions authorizing programs, the programs lost momentum while staff seeks approval to change program parameters.
3. In 2005, the Board revised this process to make it more efficient.

It is therefore RESOLVED:

1. The Energy Trust of Oregon, Inc., Board of Directors hereby authorizes all existing programs to:
 - a. Operate under a not-to-exceed budget cap established by the Board in the annual budget approval process or by special resolution; staff is authorized to manage the program within this budget until the next annual budget review; staff may move budgeted funds from one program to another within the same program sector (residential, commercial, industrial and renewable energy) without board approval.
 - b. Be managed to achieve annual board-approved goals.
2. The Board will continue to review and approve program management contract terms.
3. Staff will provide the Board with quarterly status reports based on energy savings by program and sector (not individual contract). Reports would identify issues regarding program performance, such as:
 - a. a program's long-term cost-effectiveness is trending in a negative direction.
 - b. the program is not expected to achieve significant savings over its life.
 - c. a quarterly report shows that a program is trending below its goal, the Board may call for an action plan to address the short-fall.
4. Staff will provide an update to the board on any movement of funds from one program to another at the next board meeting following such movement.
5. The Board retains discretion to modify or discontinue a program if it is not meeting expectations.
6. The Board will use the budget and action plan process to review, modify and adjust program goals and budget caps.

Moved by:

Seconded by:

Vote:

In favor:

Abstained:

Opposed:

Board Decision

Amend Above-Market Cost Policy

September 30, 2015

Summary and Background

This policy was last amended in 2012. Staff has reviewed it in light of Energy Trust's new strategic plan and performance measures and recommends only minor editorial changes. These changes clarify that in our review of projects, we determine net project costs, i.e., we compare project costs to market costs after deducting the project's tax benefits, government incentives and income streams. This change makes explicit what is implicit in the existing policy, and reflects how we have always operated. No other changes are recommended.

The Policy Committee reviewed staff's suggested revisions at their committee meeting on September, 1, 2015. The committee recommended that the policy include language clarifying that costs are reviewed to net out "project" income streams. Staff included the suggested language, and with that, the policy was recommended by the committee for approval by the full board in the consent agenda at the next full board meeting.

Recommendation

Amend the Above-Market Cost Policy with slight editorial changes to clarify that review of costs involves a review of net project costs.

RESOLUTION 754 AMEND ABOVE-MARKET COST POLICY

Procedures for Evaluating the Above-Market Cost of a Renewable Resource Project

WHEREAS:

1. Ratepayer funds for renewable energy projects may be used for "the above-market costs" of constructing and operating new renewable energy resources.
2. In 2002, the board adopted an above-market cost policy specifying a methodology for comparing the cost of a renewable resource with the market price of power, i.e., the price of non-renewable energy on the open market, using levelized present values.
3. The methodology identified the maximum amount that Energy Trust would pay toward a project.
4. Before 2007, most of Energy Trust's renewable generation came from larger, utility-scale wind projects. These projects were governed by "master agreements" negotiated with PGE and PacifiCorp, which established procedures for identifying projects and negotiating funding agreements. Energy Trust's above-market cost policy described different methodologies for utility-scale projects and smaller projects.
5. In 2007, the Oregon legislature limited Energy Trust funding for renewable energy projects to the costs of constructing and operating projects with a nominal generating capacity of 20 megawatts or less. Since then, the methodology for evaluating above-market costs has been the same for all renewable projects, whether utility-sponsored or not.
6. In 2012, the board approved changes to the policy to make clear that Energy Trust's focus is on smaller renewable projects. Up for its regular three-year review at this time, staff

recommended a slight additional language change to clarify that “net” costs are analyzed in above-market cost evaluation.

It is therefore RESOLVED that the Energy Trust policy on above-market costs of new renewable resources is amended as shown below to clarify that Energy Trust will use “net” costs in evaluation of project above-market costs.

4.07.000-P Methodology for Evaluating Above-Market Costs of Renewable Resource Projects

The Energy Trust will evaluate medium and small-scale renewable resource projects that are submitted under the Energy Trust programs.

1. **Review Project Proposals:** The Energy Trust will review the costs, net of tax benefits, government incentives and income streams, submitted by project sponsors. Whether through standard processes or RFPs, proposals must provide sufficient information to evaluate the project, including at least technical specifications, resource characteristics, energy delivery, integration, transmission, development timelines, operating plans, financial detail, tax benefits, risks, and personnel. The Energy Trust will evaluate the responses and compare these to the usual and customary net costs and specifications for similar resources. For complex projects, independent consultants may be used to help with this review and due diligence. Information requirements will vary by program.
2. **Definition of Market Cost:** Based on the OAR definition of above-market cost, for projects delivering power to the utilities the Energy Trust will compare the renewable resource costs to the market value that is used by the utility to acquire non-renewable resources, provided the market value was developed using methods consistent with the utility’s latest Integrated Resource Plan and the Commission-approved acquisition process. The market value will typically be an updated forward price curve, QF tariff, Commission-approved avoided cost filings, or marginal non-renewable resource selected through a competitive bidding process. The market price will be adjusted to match the expected daily and seasonal delivery schedule of the renewable resource if necessary. In the case of on-site and net metered use, the market cost will be the retail rates for the customer under filed tariffs with the OPUC.
3. **Calculate the above-market cost:** The defined market costs will be compared to the delivered price for the renewable resource for each year of operation. The difference between the two will define the above or below market cost for that year. The net-present value for these costs over the life of the project (or the contract term in the case of a Power Purchase Agreement) will be calculated using industry-standards to determine the maximum above-market payment, if any, from the Energy Trust. The Energy Trust staff will document these assumptions as part of the review and the Energy Trust’s approval processes, which will include a review of what was used in the developers bid compared to what is standard in the industry for rates of return and competitive cost of capital. If the net present value is positive, then this amount would define the maximum above-market cost that the Energy Trust could pay. If the net present value is zero or less, then there would be no above-market cost payments.
4. **Payment:** The Energy Trust can pay up to 100% of the above-market cost. The actual amount of the payment is determined on a case-by-case basis after considering the amount of funding available, the funding needed to develop the project, the benefits of the project, and the potential of the project to reduce renewable resource costs, provide replicable benefits, address a resource with significant potential, or meet other considerations related to achieving

the objectives of the Energy Trust Strategic Plan. Payments to applicants for projects generating for own-use may be capped at the calculated net present value when comparing the cost of the project to the proposer's retail rate, if this results in a lower above-market funding from the Energy Trust than provided in step 3 above. Payments may be made up-front or on a periodic basis over time based on production or other factors. Payments made over time may reflect the discounted time-value of those funds.

Standard-Offer Resources: The Energy Trust will have some programs that require a standard offer for all projects of a similar type. Standard offers can be necessary for market development to signal consistency for long range planning and investment, or because projects tend to have uniform costs. In such instances re-calculating the incentive for each project would be a barrier to the market development and unnecessary.

For programs that have been authorized by the board to offer a standard incentive, staff will follow the procedures outlined for mid to small-scale projects. The calculation will be based on the latest available data on average costs for projects in Oregon. This calculation will be updated at least once per year with incentives adjusted, if necessary.

Other Considerations:

1. Implementation of the Above-Market Methodology: The procedures and analyses will determine the above-market cost based on the best information available at the time of the decision; the payment will be fixed based on this information and will not be adjusted for future changes. The Energy Trust will work with the utility and others to include the most current information in the calculation of the above-market costs.

2. Energy Trust Payments: The payment can be made to the developer, investors, lenders, utility or other parties. The Energy Trust may make a one-time payment, establish escrow accounts, or structure other arrangements.

3. Modifications to the Procedures: If the Energy Trust staff determines that these procedures hinder project acquisitions or that it could be in the ratepayers' interest to modify the procedure for evaluating above-market costs, the staff may request that the board make an exception to the procedures. Prior to doing this, Energy Trust staff will consult with the utilities, the Commission staff and, within the constraints of confidentiality and timing, also with the Renewable Advisory Council. The rationale for any case-specific modifications would be documented as part of the evaluation process for board approval.

4. Utility master agreements. Energy Trust has had master agreements with PGE and PacifiCorp for several years. These agreements were negotiated with the above-market cost methodology in mind, and are consistent with this methodology, but have somewhat different procedural requirements. If utilities submit funding requests pursuant to master agreements, those procedural terms will apply.

Moved by:

Vote: In favor:
 Opposed:

Seconded by:

Abstained:

Tab 2

Evaluation Committee Meeting

June 24, 2015 9:00 am-12:00 pm

Attendees

Evaluation Committee Members

Alan Meyer, Board Member, Committee Chair
Susan Brodahl, Board Member
Ken Keating, Expert Outside Reviewer (phone)
Anne Root, Board Member (phone)

Energy Trust Staff

Fred Gordon, Director of Planning and Evaluation
Phil Degens, Evaluation Manager
Dan Rubado, Evaluation Project Manager
Erika Kociolek, Evaluation Project Manager
Andy Eiden, Data Analyst
Anna Kelly, Evaluation Intern
Adam Shick, Planning Project Manager
Andrew Hudson, Planning Project Manager
Thad Roth, Residential Sector Lead
Marshall Johnson, Sr. Program Manager, Residential
Mark Wyman, Program Manager, Residential
Erin Rowland, Sr. Project Manager, Residential
Mike Bailey, Engineering Manager, Planning
Paul Sklar, Planning Engineer
Kathleen Belkhat, Project Manager, Commercial
Sam Walker, Sr. Project Manager, Commercial
Kate Scott, Program Manager, Multifamily
Kim Crossman, Industry and Agriculture Sector Lead

Other Attendees

Christopher Frye, Northwest Energy Efficiency Alliance
Anu Teja, Northwest Energy Efficiency Alliance
David Clement, Northwest Energy Efficiency Alliance
Alexis Allan, Northwest Energy Efficiency Alliance
Elaine Prause, Oregon Public Utilities Commission
Brien Sipe, CLEAResult

1. Gas Fireplace Market Transformation Study

Presented by Adam Shick and Erika Kociolek

Background: We want to provide some background on the Existing Homes gas fireplace measure before diving into the results of the market transformation study. Energy Trust began offering incentives for direct-vent gas fireplaces (hearths) in 2009. Currently, nearly 100 percent of the units incentivized by Energy Trust have intermittent pilot ignition (IPI) systems. The program was designed to drive participation and increase the prevalence of IPI systems in the market, as well as increase the efficiency of units sold, which is measured by a fireplace

efficiency (FE) rating. Savings from gas fireplaces are now about 13-15% of the Existing Homes program's annual gas savings.

Energy Trust commissioned a survey of Oregon hearth vendors in 2009 to establish the baseline FE in the market. The survey indicated that the average market baseline was 61% FE. The program was initially designed to provide an incentive for units between 65% and 69% FE, and a larger incentive for 70%+ FE units. The survey also found that approximately 39% of fireplaces in the market had intermittent pilot ignition (IPI).

In 2013, we undertook the same survey to see how the market had changed since 2009. We found evidence that the average market baseline efficiency had increased to 68% FE and that the percent of fireplaces with IPI had also increased to 76%. In order to understand whether Energy Trust's program played a role in driving these changes, we undertook a market actor study. Three market actors were interviewed in 2014 and had mixed opinions about Energy Trust's influence on the market. To get a clearer picture, this market transformation study was commissioned.

Study Goals: Evergreen Economics worked on the study between January and June 2015. The goals were to understand the gas fireplace market in the Northwest, establish a current and future baseline for prevalence of IPI and FE to potentially claim savings, and understand Energy Trust's influence on the market to date.

Methods: Evergreen performed online research, reviewed program documents and data, and conducted in-depth interviews with 7 manufacturers, 3 distributors, and 7 vendors. All of the interviewed vendors were in areas outside of Energy Trust's service territory. Overall, we were very pleased with the representativeness of the interviews. Evergreen estimates that the interviewed manufacturers represent over half of the Oregon market and interviewed distributors represent exactly half of the Oregon market.

Findings: The first goal of the study was to understand the gas fireplace market. Most of the secondary data used in the study came from a proposed US Department of Energy rulemaking regarding pilot lights.¹ The Northwest gas fireplace market is comprised of approximately 22 manufacturers and 40 brands, with about 1,700 models of direct-vent gas fireplaces and inserts. The size of the Oregon market (both new and existing) is about 10,000 units per year.

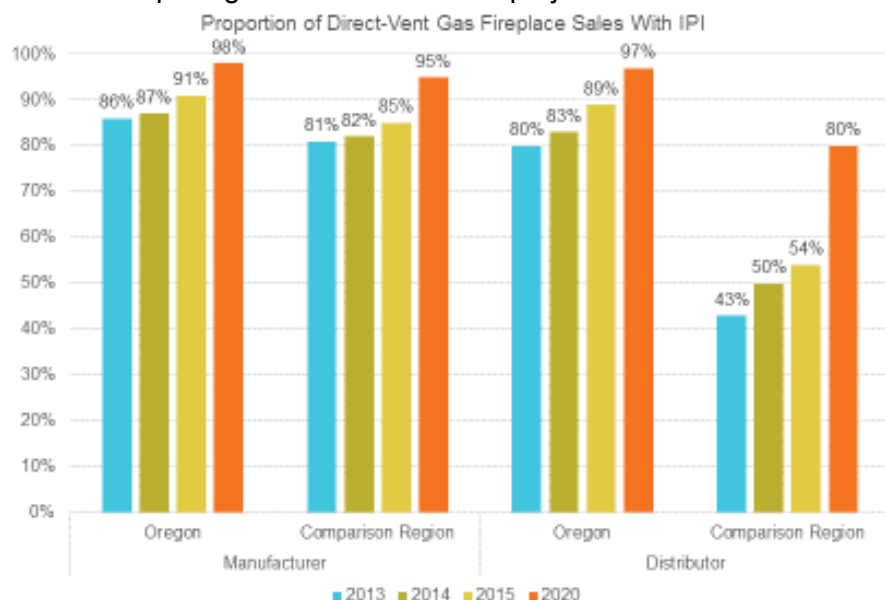
We wanted to know the proportion of gas fireplace sales with IPI, as well as the proportion of sales by FE for 2013 and 2014. We asked manufacturer and distributor respondents to estimate what their sales would be in 2015 and in 2020. We could potentially use this information to claim savings based on what actually happens in the market. Respondents were asked to provide this information for Oregon and for a comparison region – the Northwest outside of Oregon and Western Washington. We excluded Western Washington because Puget Sound Energy has a long-running fireplace program.

We also had vendors in Idaho (6) and Eastern Washington (1) provide estimates for their regions. We did not ultimately use the vendor responses in the market transformation model due to inconsistencies in their responses and a small sample (N = 7, but only 4 provided estimates). Due to these factors, Evergreen believes these responses are not representative.

¹ There is currently a proposed rule, which, if enacted, would eliminate standing pilot lights. To view the draft rule and public comments, visit: <http://www.regulations.gov/#!documentDetail;D=EERE-2014-BT-STD-0036-0010>

We asked respondents to assume that there would be no federal standards regarding pilot lights. Currently, the DOE draft rule is open for comment, and we don't know if it will go into effect. If it did, the rule would eliminate standing pilot lights by 2021. We also asked respondents to assume that there are no incentive programs for gas fireplaces in the comparison region.

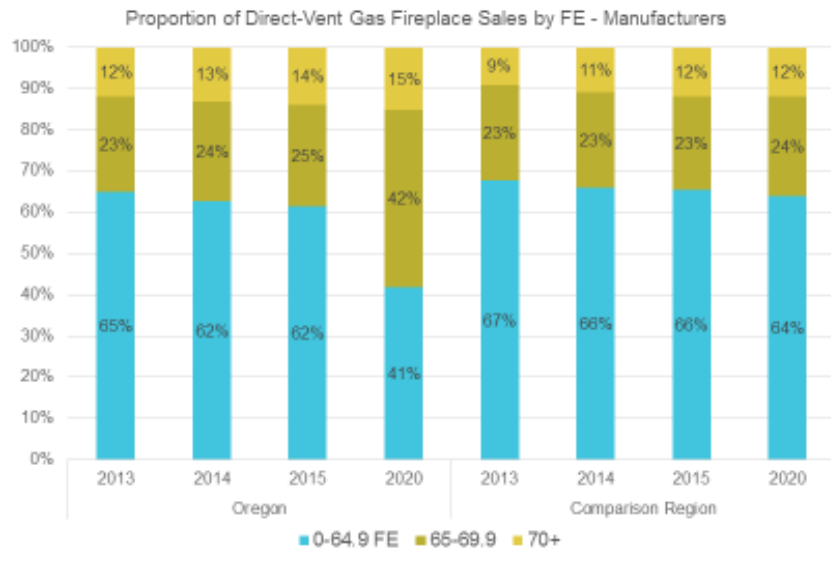
Intermittent pilot ignition estimates and projections for manufacturers and distributors



The graph above shows the percent of fireplaces that had IPI in 2013 and 2014, and the percent that are expected to have IPI in 2015 and 2020 for Oregon and the comparison region. Manufacturers' responses are shown on the left, and distributors' responses are shown on the right. The results show that both groups believe the percent of fireplaces with IPI will increase in both regions, reaching nearly 100 percent in Oregon by 2020. The respondent groups differ in that distributors indicated a larger difference between Oregon and the comparison region. Also, Distributors' estimates for sales of IPI in the comparison region only reach 80 percent by 2020, which is lower than manufacturers.

When asked about the reasons for differences in IPI prevalence between Oregon and the comparison region, most respondents cited costs. Some mentioned that units with IPI tend to be slightly more expensive, and a few mentioned that rebate programs bring down the cost. Other respondents mentioned that rural customers are price sensitive, and are more likely to favor units with standing pilot lights for this reason. Another reason cited by respondents was concerns about IPI performance and reliability. Some respondents said power outages in rural areas make a standing pilot light more attractive (since electricity isn't needed to use your fireplace) and cold climates can result in units with IPI having condensation problems.

Fireplace efficiency estimates and projections for manufacturers

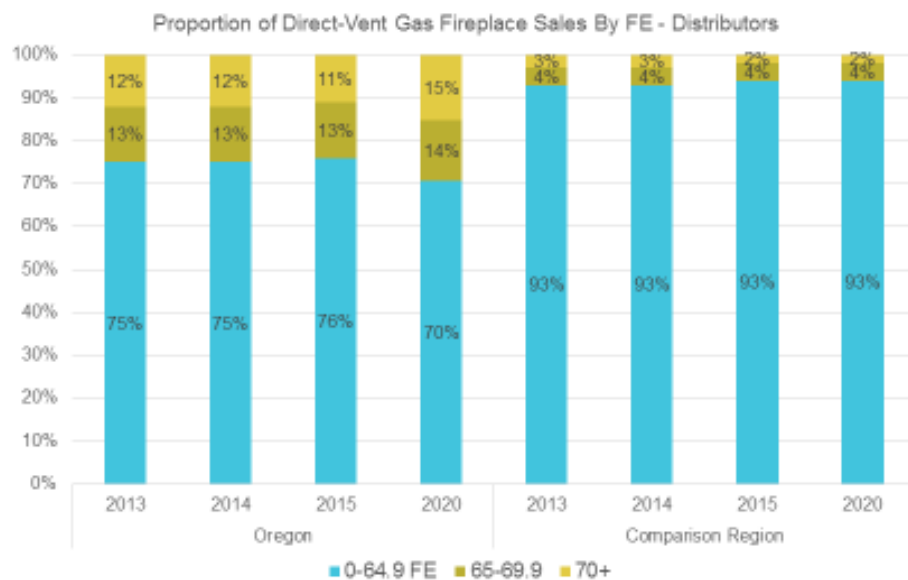


The chart above shows the proportion of gas fireplace sales by FE bin: 0%-64.9%, 65%-69.9% and 70%+, for Oregon and the comparison region as reported by manufacturers. We can see that in the comparison region, sales stay relatively constant over time – about two-thirds of sales in the lowest bin, a quarter are in in the 65%-69.9% bin, and 12% are in the highest bin (70%+). In Oregon, manufacturers expect to see a decline in the lowest bin (62% to 41% of sales) and a corresponding increase in the higher efficiency bin (25% to 42% of sales) between 2015 and 2020. Of the 7 interviewed manufacturers, 5 said they saw differences between Oregon and the comparison region.

Five of seven manufacturers identified a difference in the distribution of FE between Oregon and the comparison region. All five said that rebate programs and/or availability of incentives were part of the reason for differences in FE between the regions. Three mentioned that attitudes towards energy efficiency among customers played a role, indicating that in Oregon, attitudes are more positive. Since IPI and FE are correlated, one manufacturer mentioned concerns about IPI performance are barriers to the purchase of high efficiency fireplaces in the comparison region. One other manufacturer mentioned cost as a reason for the differences and another mentioned that dealers are more interested in high efficiency in Oregon.

Thad asked if the figures for 2013 and 2014 are projections. Erika answered that they are actuals.

Fireplace efficiency estimates and projections for distributors



We also asked distributors to provide the same information. They have a slightly different take on the market, being in a different position in the supply chain. Compared to manufacturers, in Oregon distributors saw a higher proportion of the lowest efficiency fireplaces (manufacturers reported 62%-65% of sales were in this bin), and a much higher proportion of lower efficiency fireplaces outside of Oregon (manufacturers reported 65%-67% of sales were in this bin). They did not see much change in the comparison region, but for Oregon they did predict a small decline in the lowest bin (from 76% to 70% of sales) and a corresponding increase in the 70%+ category, from 11% to 15% of sales.

Andy H. asked we have any thoughts on why there is a difference in viewpoint between the two groups [manufacturers and distributors]. Fred answered that it is because of the distance in supply chain. David Clement asked where the manufacturers are from. Erika responded that some are based on the US, others are in Canada, and still others are from outside of North America. Mark asked if it is unusual to see these differences of opinion between market actors. Phil commented that it is, since manufacturers don't know where their product is going; they just know where they are shipping their products. Also, they define regions differently. They might include Alaska or Utah in their "Northwest region." Fred commented that for other products, this has shown up as well.

Elaine asked about the total market size. Adam answered that Evergreen estimates the market size is 10,000 units which includes fireplaces going into both new and existing homes.

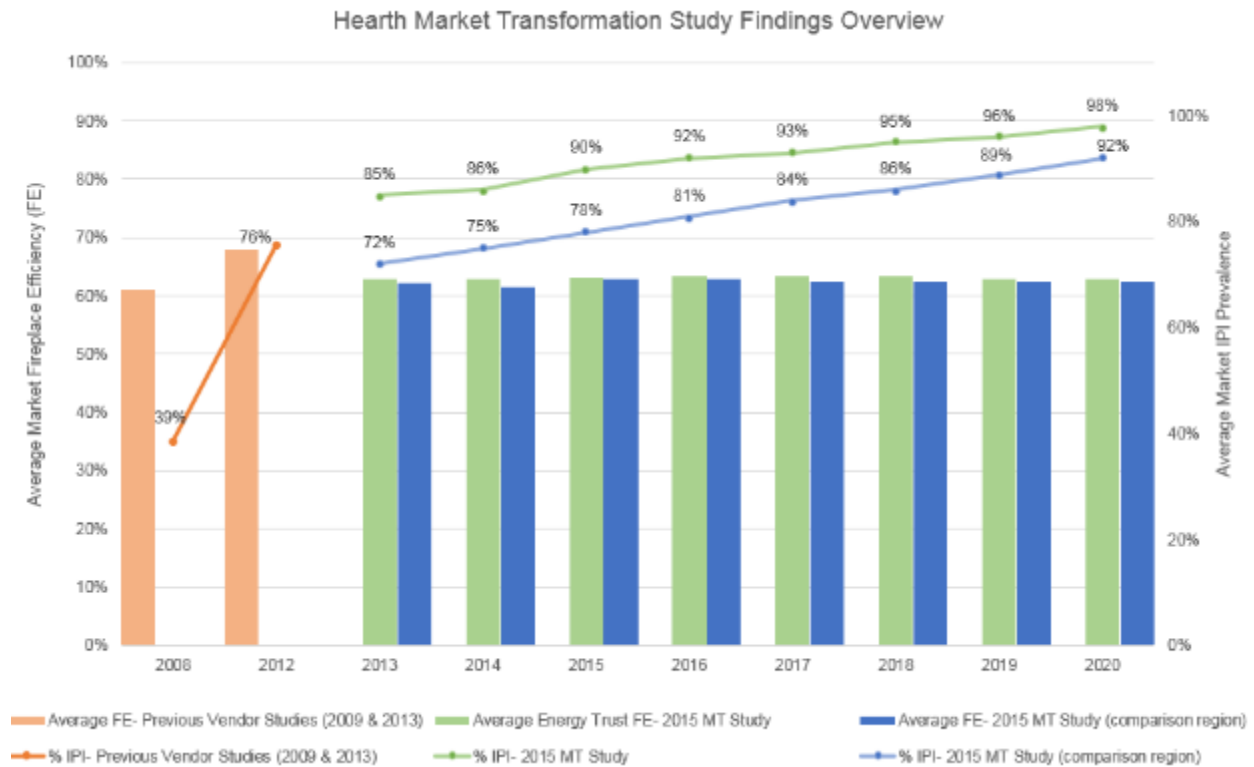
Erika continued, noting that two distributors provided information about both Oregon and the comparison region. One of them sees or expects to see a difference in the FE of their product mix between Oregon and the comparison region. This is because of rebate programs, attitudes about IPI among dealers and customers in the comparison region (prevalence of IPI in higher efficiency models is a "turn off" for some dealers and customers in the comparison region), and lower incomes in the comparison region leading customers to look for less efficient and cheaper options. The other distributor stated that in Oregon, they expect to see a shift in the proportion of units sold from the 0%-64.9% FE tier to the 70%+ FE tier in 2020 due to rebate programs.

Summary: Both manufacturers and distributors reported very high IPI prevalence in Oregon. Distributors saw much lower IPI prevalence in the comparison region; manufacturers did not see much of a difference. Both manufacturers and distributors expect IPI prevalence to increase to close to 100% by 2020. The primary reasons for differences in IPI prevalence between regions are: incremental cost difference between standing pilot lights and IPI, existence of rebate programs in Oregon and the absence of rebate programs in the comparison region, and the perception that IPI has performance issues.

Regarding FE, there is a difference in the distribution of FE between Oregon and the comparison region. Neither manufacturers nor distributors expected much change in the comparison region between now and 2020, but manufacturers did predict a large change in Oregon (shift from 0%-64.9% FE into 65%-69.9% FE) as did distributors (a smaller shift from 0%-64.9% FE into 70%+ FE). Primary reasons for differences in FE mix were cost and rebates.

Market Transformation Model: The chart below combines the responses from distributors and manufacturers into a market transformation model. The results from the 2009 and 2013 vendor studies (in orange) are included for reference only. The green bars and lines represent the FE and IPI forecasts for Oregon, while the blue bars and lines represent the comparison region. The numbers from this study are different from the vendor studies, and we have a few thoughts on why they are different. First, the vendor studies focused on one type of market actor, and as we've seen, where you sit in the market impacts your estimates. Second, the 2009 and 2013 surveys estimated the FE and IPI numbers by asking vendors for information about their top five best-selling models and then using that information to estimate an average FE and the proportion of units with IPI. In this study, we asked respondents to think about their entire product line in making their estimates, so we think the results obtained through this study are more accurate. Third, the vendor surveys were primarily focused on the existing homes market, whereas this study covers both the new and existing homes markets. While IPI is expected to increase, FE was projected to stay largely the same.

Market transformation model overview



We are asking for the committee’s input on two points:

- 1) Is there sufficient evidence to claim market transformation savings in the past?
- 2) Is the baseline defensible, and can it be used to claim future market transformation savings?

Christopher asked if the slide with the estimates of FE and IPI prevalence from the 2009 and 2013 vendor studies could be explained. Erika responded that the slide shows results from two surveys of Oregon hearth vendors. We asked vendors about their top five best-selling hearth models, and we used Natural Resources Canada’s website to determine their FE and ignition system type.

Marshall asked about the size of the market in the 2013 study. Adam answered that we surveyed about 23 vendors, but we are not sure how much of the market they represent.

Fred remarked that you are not going to get good data with vendors. Just reading through the ad hoc comments, it is pretty clear that vendors had difficulty providing full responses. You might get better data from distributors. Manufacturers may get better, broader data but they might not know where we fit. We are weighting distributors’ data more heavily. This is important for market transformation consideration.

Marshall commented that the reason for his earlier question is we claim savings based on the delta (change). The savings is going to be different if you change the baseline.

Alan asked about how often fireplaces are used. Fred responded that in a prior study, we metered fireplace use. It looks like on average, the fireplace measure is cost-effective for the average use of those who choose to purchase a fireplace.

Ken commented that he would like some clarity on the questions that were asked. Did you ask where the market would be in the future if the program stopped today? Adam responded no, we asked respondents to assume that Oregon rebates would be in place, and that there would be no rebates in the comparison region. We then asked respondents to tell us what they saw in the market in 2013 and 2014 in Oregon and the comparison region, and then project out what the market will do in 2015 and in 2020. Fred commented that we attempted to choose a question that they would be able to effectively respond to, especially since we are now six years into the market.

Ken responded that the question of what the market looks like in the future if the program stopped is the question that really matters if you want to know if you have changed the market. IPI is approaching 100%. There isn't much room for growth from the current time. The number of units sold without an incentive were not subtracted out, and the evaluation did not look at the market outside of incentivized units.

Ken continued, noting that there are several challenges here. One is that for the first time you are collecting data from a comparison area so you do not have data from the past to compare to that area. A market transformation study should ask what would happen in the future with no incentive. The bottom line is there is no market transformation here based on the information you collected.

Fred responded that market transformation is more about growth in market share. Have we created a change whereby we are going to get to 100% more quickly? And the baseline from other areas might provide a proxy to what our market might look like without the program. The responses lead us to believe that we cannot assume 100%. If we continue to see 100% and other regions don't – then we can assume that is due to market transformation. So it is a forward-looking baseline, you could also look backward and we haven't gotten that far yet. We don't think it would be 100% IPI market adoption due to Energy Trust based on what the survey said.

Mark asked if any manufacturers also produce log sets. Erika replied that 4 of 7 manufacturers did make log sets. We asked their responses to refer just to direct-vent gas fireplaces. Mark asked if we have any understanding about market share of log sets. The answer is no; we only know that they are very inefficient.

Christopher asked if it is just IPI that is incented. Fred said that there are other types of IPI systems that are incented.

Fred summarized Ken's feedback. First, a classic market transformation study would have been done years ago, in which we had asked about where market actors thought the market would go. But we had a pilot that grew quickly and now we proceed by taking a backward look. It would have been good to ask what the market would do in the future without our program. Our feeling is that we have enough of a basis for inference here. We believe that this difference is likely something we influenced. Fred said that he is looking for a gut check from Ken and other board members.

Ken responded that he thinks the program has the potential to influence perceptions of the better choice. That could explain something beyond just providing incentives. On the FE side, you are just not seeing significant differences and not over time. I am not sure there are differences there to claim.

Susan remarked that the distributors see a difference between Oregon and the comparison region with regards to FE, but the market transformation model shows no difference. Adam said that when we combined the responses, we weighted the manufacturers more heavily (the weighting was done by number of respondents, and there were seven manufacturer respondents versus three distributor respondents). Fred asked what we should do about the weighting: do we rely on some averaging of manufacturers and distributors, or do we pull the manufacturers? It sounds like Susan is in favor of relying on the distributors. Mike B. commented that you could weight the two equally. Adam noted that before you weight the responses, the distributors show a larger difference between the two regions.

Christopher asked what percent of the market was captured in in-depth interviews. Erika responded that we got more than half of the market for manufacturers and about half for distributors.

Marshall asked if we observed a difference between respondents that served the new and existing homes markets. Erika responded that we had a mix of manufacturers and distributors who served these markets; we didn't see a consistent pattern.

Susan asked if seven manufacturers represent half the market, and three distributors represent half the market, why does the model weight them based on respondent count instead of market share. Adam replied that this is something the evaluation contractor decided in terms of approach.

Susan commented that she would like to understand why weighting by market share was thrown out. Adam responded that it would not be clear exactly how to weight them because we did not get percent of sales for models by distributor. It was too complicated versus weighting by the number of respondents.

Alan asked if we think distributor perceptions could be biased by potential for an incentive. Are their responses just based on perceptions or are they based on hard data? Adam replied that in 2013 and 2014 we did ask for hard data in terms of percentage of sales. For 2015 and 2020 we are asking them to speculate.

Brien Sipe commented that the comparison region is a small region. Can the manufacturers provide good estimates for this region? Would distributors have more local knowledge? Phil responded that it is up to us to weight that. That is why we have the triangulation. We interviewed both groups and assumed they are all equally valid. That is why we are looking at these numbers for each group separately. Most market transformation is just that: a story. Which of these plot lines makes sense based on this data from various market actors? We are never going to get 100% perfect information. Mark commented that distributor responses give more accurate information for our region and we have the potential to set up relationships with distributors and get sales data to look backward. Alan asked if the Oregon region is pretty much the same and the difference is with the outside comparison. Fred said that is correct.

Alexis Allan asked, do you have to follow the same methodology for questions to manufacturers and distributors? They may have different expertise in terms of projecting out into the future. Adam replied that to combine these groups, we needed to ask the same questions.

Christopher asked if the instruments were identical. Erika responded that the core questions were the same but there were minor differences. Christopher asked if respondents have defined regions that they work with that would make it hard to answer questions the way we have defined the comparison region. Erika said that in the 2014 market actor study, we asked respondents (mostly regional sales managers) what region(s) they focused on. Their responses ranged all over the west coast. But that wasn't a question we really focused on in this study. Christopher commented that it just makes it harder to interpret. Phil added that you have to ask them for their best estimate and then come up with an average.

Susan asked how much are we talking about in terms of prospective savings to be claimed. Adam replied 60-70 therms for IPI and 30-40 for FE savings. First we have to subtract out the units we have been influencing without our incentive. Thad Roth asked if that would include sales outside of incented units. Adam responded that is correct.

Fred said there are approximately 6,000 units we influence which comes to about 24,000 therms. This is within a goal of millions of therms. Thad added that it is even bigger proportion for residential. Adam commented that the anticipated savings would be similar to the savings claimed for gas furnace market transformation.

Fred summarized that we are leaning towards relying on distributor data. Ken has questions as to whether we have a case for future looking market transformation, and so there is a question if we can just do a conservative estimate of the last few years. There does seem to be justification to look back a few years and get an estimate of IPI prevalence. We will likely claim a portion of savings and be conservative about how we do it. Susan commented that she thinks there are defensible savings here. We seem to be discounting distributors unfairly, and if you went back and weighted evenly on market share, then you would have apples to apples. Fred noted that we will weight 50/50 because we do not know about the total market share of these groups.

Fred said this is why we come to you because it is useful to get the feedback. Phil said one doesn't know the level of knowledge respondents will have with these type of interviews.

2. Short Take: New Homes Gas Fireplace Studies

Presented by Erika Kociolek

Background: This presentation summarizes results of three studies focused on gas fireplaces in new homes. The impetus for the studies was that the New Homes program is interested in developing a gas fireplace measure. We currently have a fireplace offering for existing homes, but not new homes.

To determine if a cost-effective measure for new homes is feasible, we needed to collect information about the prevalence of fireplaces in new homes, the average hours of use of fireplaces in new homes, and the market baseline fireplace efficiency (FE) and the prevalence of intermittent pilot ignition (IPI) of fireplaces being installed in new homes.

Methods: To answer these questions, we undertook three studies. The first was an effort to collect data on fireplace characteristics, which was conducted by new home verifiers. This data

collection effort provided information about the market baseline FE and prevalence of IPI. The second study involved interviews with builders, which was intended to provide additional information and context for findings obtained from the verifier data. Finally, we conducted a survey of new homeowners to gather information about average hours of use

Both the builder interviews and new homeowner survey gathered other information of interest to the program, and these findings will be incorporated into the 2015 New Homes process evaluation; today we're just going to summarize the fireplace-related information and findings. As we just discussed, we have this information for existing homes, but there is reason to believe it would be different for new homes.

Verifier Data Findings: Between August and October 2014, five new home verifiers collected data from 185 homes about 192 fireplaces. 131 of those homes were in Oregon, and 54 were in Washington. The sample included data from 56 Oregon builders and 16 Washington builders. Verifiers collected data about the make and model of fireplaces installed in the home, as well as information about the home itself: builder, state, and type (e.g., code, EPS, Energy Star).

Most homes (94%) had one fireplace, and 6% had two or three. Note that this data collection effort did not look at what proportion of homes had a fireplace, but rather, of those homes with a fireplace, what proportion had one or two fireplaces.

The average fireplace efficiency was 56.5% FE (compared to 68% FE estimated in a 2013 survey of vendors conducted for the Existing Homes program). And 53% of fireplaces had IPI, compared to 76% that we found through the 2013 survey of vendors. So there do seem to be differences between the existing and new homes markets in terms of baseline efficiency. We looked at differences in average FE and IPI prevalence in order to find out if there were differences between different types of home, the states where homes were constructed, or verifiers. We did see a large difference in IPI prevalence between Oregon and Washington, as is shown in the table below. As you can see, in Oregon, 35% of fireplaces had IPI, while 96% had IPI in Washington. The mean and median FE in Oregon also looks a bit higher than Washington. But the prevalence of IPI is very different. We are not aware of any differences in code between states.

FE and IPI prevalence by state

	Oregon	Washington
Minimum FE	45	51.4
Mean FE	57.8	53.7
Median FE	59.4	52.4
Maximum FE	71.7	71.6
% IPI	35%	96%
Number of Fireplaces	137	55

We found that the difference in IPI prevalence is strongly driven by the type of fireplace installed; 91% of Washington fireplaces were a particular brand, and 100% of those fireplaces had IPI. In contrast, half of Oregon fireplaces were one brand and the remainder different brands, and only 1% of those fireplaces had IPI.

Alan asked if the prices of the Washington and Oregon homes are comparable. Erika said we did not collect that data as part of the study, but that could play into these results. Christopher asked about how the time period may be affecting these results; it may just be that the results are due to the time period in which the data collection happened. Phil responded that there are a wide variety of builders in the sample, so it should be relatively robust to time period. Andy H. asked if all the verifiers were program verifiers. Erika said yes, and that corresponding, most of the homes in the sample were program homes, although we also got data for a few code homes.

Builder Interview Findings: To better understand the FE and IPI findings, we decided to conduct interviews with builders, targeting Oregon builders that were installing fireplaces without IPI and Washington builders that were primarily installing fireplaces with IPI. We worked with Evergreen Economics to conduct the interviews.

We interviewed 11 builders (8 in Oregon and 3 in Washington) but we were only able to survey four builders that had overlap with the verifier data collection, despite repeated attempts to schedule and complete these interviews. One of the two interviewed Oregon builders was in the minority of builders that installed products which all had IPI. So, we did not obtain the desired insight into reasons for the difference in IPI between Oregon and Washington builders, but we did gather other important information about how often fireplaces go into homes, how builders source fireplaces, whether they purchase fireplaces individually or in bulk, and the factors that play into their purchase decisions.

Of the homes that builders construct with gas service, 93% of Oregon homes and 87% of Washington homes have one or more fireplaces installed. Of these, 95% have only one fireplace. Builders reported that installing fireplaces has become a common practice over the past five years, particularly in mid- and high-priced homes, due to consumer desire.

We wanted to know where builders are purchasing fireplaces. Most builders reported using a distributor for purchasing fireplaces, with a few also using an HVAC contractor. Out of eight Oregon builders, six used the same distributor.

The majority of builders purchase individual fireplaces, perhaps due to costs associated with storing them; some also purchase fireplaces in bulk if they are using similar or identical fireplace models for homes in the same community or project location. Builders reported that the most

important factors considered when selecting a gas fireplace are price (8) and aesthetics (7), followed by quality and size (4 each). Only one builder mentioned energy efficiency. Other findings from these interviews will be summarized in the 2015 New Homes program process evaluation.

Homeowner Survey Findings: The last study we did was a survey of residents of new homes. We worked with AbtSRBI on this survey; they sent survey invite letters and reminder postcards, which drove potential respondents to an online survey. The response rate was 8%, with a total of 146 completed surveys.

The questions focused on a variety of topics, but a subset of those questions focused on gas fireplaces, which is what we'll focus on today. Other findings will be summarized in the 2015 New Homes program process evaluation.

Specifically, we'll look at the number of homes with a fireplace, the number of fireplaces in a home, and the average hours of use. We previously completed a metering study to obtain estimates of hours of use of fireplaces in existing homes, but thought this might be different for new homes. With existing homes, customers are selecting and purchasing a relatively expensive product. Conversely, new homes come with a fireplace that residents may or may not have wanted.

Fred asked, how soon after folks moved in was the survey delivered. Erika responded that most respondents said they had been in their home between one and three years.

81% of respondents reported that their home had a gas fireplace. Most of those had one fireplace, and a few had more than one. Of the 118 respondents that reported having a gas fireplace, 8% said they didn't know how much they used the fireplace during the heating season and 16% reported not using the fireplace. On average, respondents reported using the fireplace 8.2 hours per week during the heating season (September – March).

As mentioned previously, we performed a metering study that included residents who had purchased a gas fireplace for their home. We asked participants to self-report how much they used the fireplace, and compared that to the metered data. We found that respondents over-reported by 53%, on average. It's important to note that the metering study attempted to screen out folks that used their fireplace less than 5 hours per week. Assuming that residents of new homes also tend to over-report use, we can use that number to adjust the 8.2 hours per week estimate and get 5 hours per week as a more likely average use.

Christopher asked about how the sample was derived. Erika replied that the sample was generated using data in FastTrack on homes that received incentives through the New Homes program. Anu asked when the metering study was conducted and how long the metering period lasted. Erika responded that the study was conducted during the 2013-2014 heating season, and meters were installed for 81 days, between February and April. Alan asked if for the survey of residents of new homes, we asked about whether or not they disabled their pilot lights. Erika responded no; the questions were mostly around how fireplaces are used and how often.

Mike B. asked about the potential for outliers, the person who leaves it on all the time. Erika replied that the distribution has many people at the low end and in this case one person using their fireplace all the time. This is consistent with the metering study.

Conclusions: Gas fireplaces are prevalent in new homes, and the average FE and prevalence of IPI appears to be lower than what we see in the existing homes market. Builders are strongly influenced by fireplace aesthetics and price, and tend to purchase fireplaces from distributors and/or HVAC contractors. Residents of new homes report using their gas fireplace an average of 8.2 hours per week (5 hours if adjusted to account for the tendency of customers to over-estimate usage).

Energy Trust Take: Energy Trust's take is that these studies provide useful and credible information about the new homes gas fireplace market. Program and Planning staff are now considering the best way forward given the results of these three studies.

Alan asked if we are trying to work with manufacturers given the results of these studies. Fred replied the study results are really new; we have given the results to programs and they are considering next steps. Mark commented that the program is interested in working with distributors and creating a relationship. Also, we know that builders are driven by price, and that IPI is correlated with price. So given that the Washington data shows near 100% IPI, we should further investigate these results.

3. 2014 Fast Feedback Results

Presented by Erika Kociolek

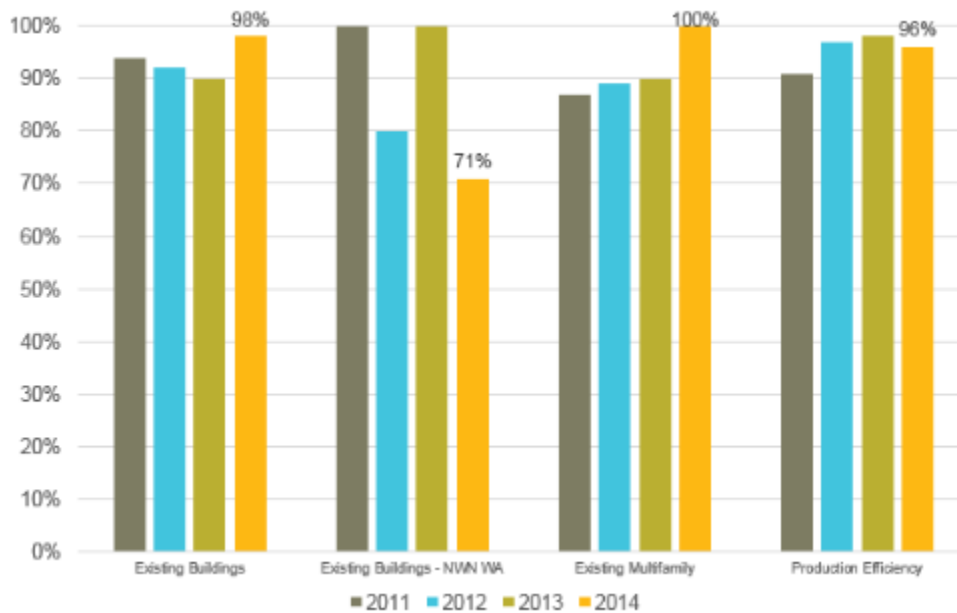
Background: Fast Feedback is a short phone survey given to recent participants about one month after they receive their incentive check. Topics include satisfaction, investment decision process, use of tax credits, suggestions for program changes, and any custom questions for programs (e.g., participants have the option of their refrigerator recycling incentive to the Oregon Food Bank, so we ask those customers if they did that and if so, why).

We try for representative samples achieving 90/10 confidence/precision. We completed 2,751 surveys in 2014.

We use Fast Feedback data in a lot of ways. We provide open-ended comments to program staff for their knowledge and use. The key results go into quarterly reports to the Oregon Public Utility Commission (OPUC) and the Fast Feedback results are public and posted to our website. Satisfaction data is used to calculate one of the OPUC's performance metrics – they require us to achieve greater than 85% overall satisfaction for residential and non-residential programs, and greater than 85% satisfaction with program representative for non-residential programs.

Non-Residential Results: There are a lot of results in the report, and we are just going to focus on satisfaction and free ridership today. We will start with non-residential programs. As shown in the graph below, satisfaction is very high. For Existing Buildings NW Natural Washington customers, we only surveyed 7 participants. But of those, 5 of 7 were satisfied and 2 were neutral. So the 71% satisfied number looks low, but this is just a function of small sample size.

Satisfaction for non-residential programs



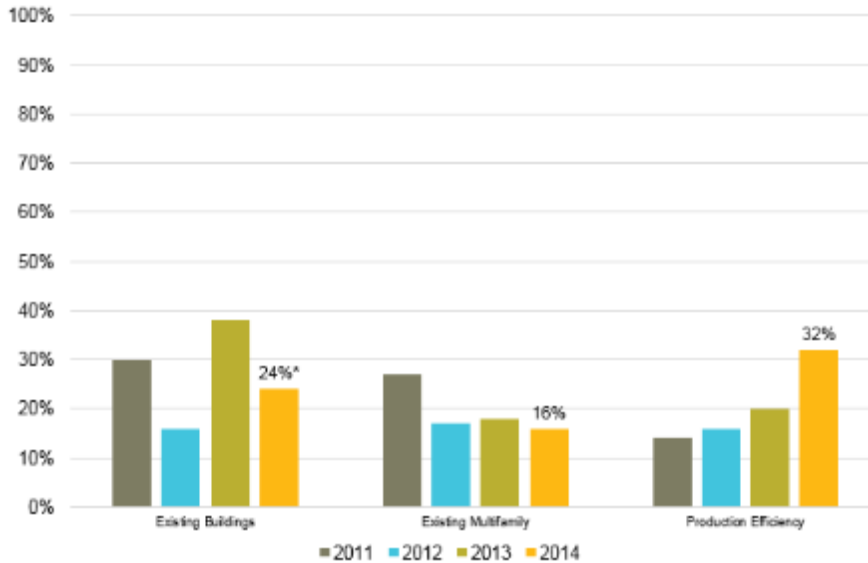
The table below shows gas free ridership rates over time. You'll notice that the rates for some years were estimated using data from prior years. The reason is related to sample size. If in a given year, we have fewer than 30 respondents, we go back to prior years to ensure we have a sufficient number of respondents. So it is just coincidence that in 2014 the rates for the three programs are all coming from same year span (2012-2014). It could be different depending on whatever gets us to 30. This also implies that it is not that informative to look at trends over time since we look at 2013 in both bins, for example.

Gas free ridership rates for non-residential programs

Program	Free Ridership Rate	Year	Years Included
Existing Buildings	28%	2014	2012-2014
	28%	2013	2013
	18%	2012	2012
	27%	2011	2011
Existing Multifamily	42%	2014	2012-2014
	51%	2013	2011-2013
	37%	2012	2012
	48%	2011	2011
Production Efficiency	21%	2014	2012-2014
	23%	2013	2011-2013
	26%	2012	2012
	20%	2011	2011

Alan asked for clarification. Erika commented that we can't look meaningfully over time, as participants in the program from the same year will potentially impact different years' free ridership estimates. Alan asked if that is an issue. Phil responded that eventually it will become more of a moving average and we can say more about trends. But comparing just two columns we can't really define a trend.

Electric free ridership rates for non-residential programs



*The 2014 Existing Buildings rate includes projects from 2013-2014.

The graph above shows electric free ridership rates for non-residential programs. For Production Efficiency, a key driver was one custom project that accounted for 44% of custom-track savings and had a big impact. Christopher asked if it is based on self-reported data. Erika said there are two batteries of questions: one called “project change” and one called “influence.” We ask each respondent, in the absence of incentives what would they have done? Based on the response, we determine whether they are a full free rider, partial free rider, or not a free rider. Then we ask about the influence of different elements such as the contractor, if a study was performed, etc. Then we determine whether they are a full free rider, partial free rider, or not a free rider. We give equal weight to the free rider rate obtained through the project change and influence questions.

Kim commented that the project that had a large impact is an anomaly in the sense that it is not similar to other numbers. You can’t adjust around it. It will be used to determine market effects and will raise our cost per kWh by 10%.

Kim continued by saying we are training all of our customers in SEM and the degree of their success is based on their being willing to establish a plan to manage energy use and take other energy efficiency actions.

Also, Kim commented that many facilities are planning projects, and we are adding the energy-efficiency component to the project scope; to ask “would this have been done anyway” and to parse out the energy-efficiency component is really hard to do in such a simplified survey.

Mike B. asked if the large project is a first time Energy Trust participant. Kim responded that she thinks there is a lot to learn about the specific site but she unaware of that detail. Phil said they were not a complete free rider. They answered that they would have done the project in the absence of the program but that we had a big influence. They are inconsistent in their answers and we allow for that in our surveys. They were not a first-time participant and were an SEM

participant. They are a partial free rider but they account for 44% of savings of custom track which was 60% of the overall program savings in 2014.

Kim agreed with Alan that more research is needed. Phil said that in the past we have talked about unusually large projects. But this one is not so, in that there are other large projects over 1,000,000 kWh. Alan commented that going from an electric free ridership of 20% to 32% is significant and suggested more research. Christopher asked what the numbers were with this project omitted. Erika said that we don't have those calculations off-hand and would have to look into it. There are projects that have a large amount of savings that bring down the free ridership rate as well. But this year it happened to be brought up. Across all of the programs, there are cases like this affecting the free ridership rate.

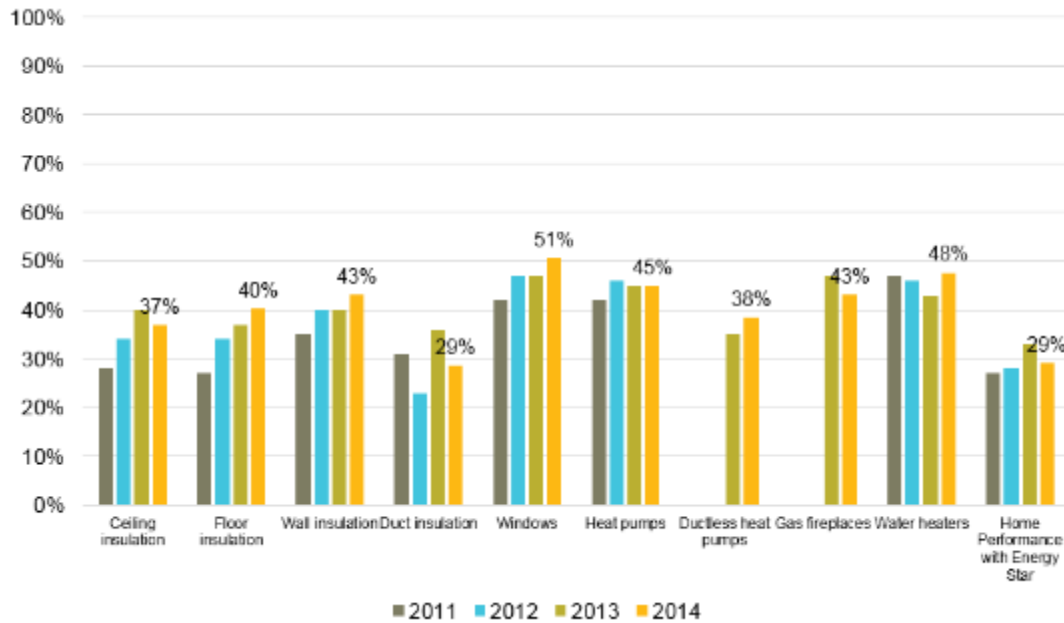
Kim commented that the sample size has been drifting down over time, and we might need to do what we can to increase this again. Erika said this will be covered on a later slide, but one thing to note is we try to reduce the burden on customers in terms of the number of times we contact them. If they participate in the survey, then we exclude them from the sample for more than one year. We could think about eliminating that rule. Kim commented that the folks that do more projects with us will be much clearer about our benefit to them. The PE program agrees with amending that survey exclusion approach.

Trends in 2014: Electric free ridership increased for Production Efficiency, and gas free ridership declined for Multifamily. The increase observed for Production Efficiency is due primarily to a large, custom track project that accounted for 44% of surveyed custom track savings. Satisfaction remains high (> 90%) for all programs, although there was a dip in satisfaction for NW Natural likely due to a small sample size.

Residential Results: Overall, satisfaction rates for the Existing Homes program were really high. There were no clear, consistent patterns across time, except for a slight increase in satisfaction for windows and consistent increases for duct insulation. The rest are kind of up and down. We did observe a large increase in satisfaction over the previous year for wall insulation (80% to 93%) and a moderate increase for floor insulation (89% to 94%). Alan reinforced that although these are small differences year-to-year, these are all really high numbers we should be proud of. Satisfaction for the Products program is high overall and been fairly consistent across time.

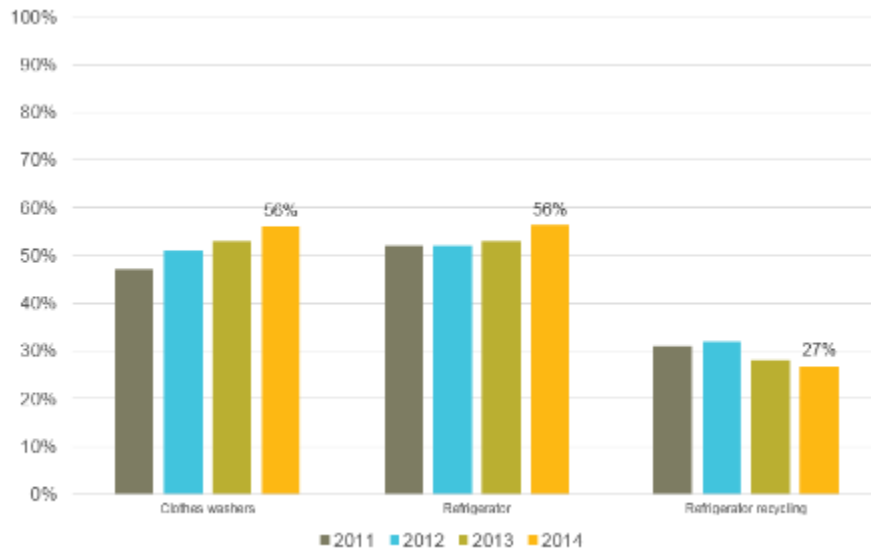
There was an issue with the survey programming that resulted in the residential free ridership questions not getting asked correctly between July and November. This has since been remedied. Therefore, these numbers only include January-June and December. As shown in the graph below, there seems to be a consistent upward trends for floor and wall insulation, and windows. The others are in line with past years, with minimal fluctuations (< 5 percentage points).

Free ridership rates for Existing Homes



For the Products program (results shown below), we see a slight upward trend for clothes washers and refrigerators. For refrigerator recycling, which has consistently low free ridership rates, we see a slight downward trend.

Free ridership rates for Products



Trends in 2014: Free ridership was fairly stable for most measures. There seems to be a consistent upward trend for floor and wall insulation, and windows. Satisfaction is generally high for all measures. We saw a mix of small increases and decreases; increases observed for wall and floor insulation.

Solar Results: The solar program has well over 90% satisfaction for the past two years.

Summary: Achieved 96% overall satisfaction and 98% satisfaction with program representative (non-residential only) in 2014. Electric free ridership increased for Production Efficiency. We saw some evidence of consistent upward trends in free ridership for floor and wall insulation, and windows.

Kim asked if a customer said they didn't need our incentive, but the study results showed that the incentive was highly influential, what is the logic of 50% free ridership? What does it matter if they needed the incentive? Isn't influence, influence? Why are we saying "if they didn't need our incentive"? Phil replied that the survey question asks "if our program was not there". Kim said she thinks it says incentive.

This is also a conceptual question - do we have to influence every aspect? Phil said we weight them [the different free ridership responses] equally. If we were just looking at program influence, we would have a different way of calculating free ridership.

Kim said that our studies also have influence and are incented. Our program design changes are reflected in the responses.

Ken said he thinks all evaluators at this point recognize the philosophical point you are raising. The question is did the program influence the decision. Energy Trust has been doing this for a long time. If the question did not word it correctly that is important.

Erika clarified that the question reads, "Which of the following statements describe the actions you would have taken had the Energy Trust incentive and information not been available?" Kim suggested that instead of "information" we say "technical study" – it is not just information, it is engineering calculations. Alan also suggested that the question should read "or" instead of "and".

Next Steps: We will investigate increasing the number of completed surveys for non-residential programs. We are calling everyone we can, currently. To increase the number of completed surveys, we would need to call customers more frequently. It should be noted that the impact of increasing number of completes on free ridership is uncertain. We will also be investigating the impact of SEM on industrial free ridership rates. We can look into modifying question wording to highlight technical information provided to customers by the program.

Alan asked how the numbers are used. Phil said they are used for True-Up and a three-year moving average is used for savings forecasts. The year-to-year fluctuations are eliminated or smoothed out more that way. Kim reiterated that there is a program cost to this.

Christopher asked how long these phone calls are. Erika responded that they are between 5 and 7 minutes long. Christopher asked if we have done randomized trials of alternate questions to see how the wording impacts free ridership estimates. Phil commented that we did back when the survey was being tested and rolled out. However, these surveys are designed so we can look at results over time, and for that reason we do not want to change the wording unless there is a very good reason.

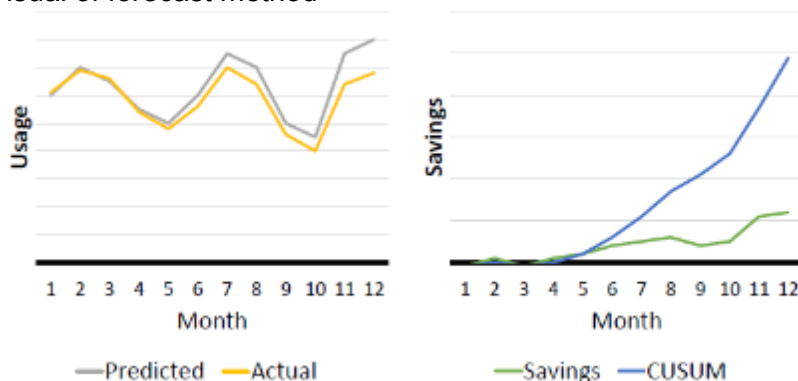
4. Short Take: Commercial SEM Savings Methodology

Presented by Dan Rubado

Background: This memo is a follow-up to the year 2 commercial SEM evaluation report that was discussed at the evaluation committee a few months ago. Based on the conclusions and recommendations from that evaluation, staff requested additional guidance and detail on recommended changes in the report related to the savings methodology for commercial SEM. There was a battery of recommendations about how the savings methodology could be improved or done better by implementation contractors. For this project, PWP and Michaels Energy (who performed the year 2 evaluation) talked with commercial SEM PDCs and produced a memo with modified recommendations with more detail and guidance on what should be done for commercial SEM moving forward.

Current Methods: Currently, a baseline energy usage regression model is created for each building within each participant organization, usually using weather variables and monthly billing data. Sometimes, other variables are included. Then, the model coefficients are used to predict usage for each building (usually monthly) going forward. Actual energy use is compared to the use predicted by the model, and the difference between the two is the savings for that month. Energy savings are tracked over time in participants' MT&Rs, and displayed to them in a cumulative sum (CUSUM) graph. At the end of the engagement period for SEM, the slope of the CUSUM graph for the last several months of the engagement are used to forecast annual savings. Working savings for any capital measures done at the site are subtracted out from the annual savings estimated for SEM.

Visual of forecast method



In the initial part of the SEM engagement, the energy use predicted by the baseline model should track very closely to actual energy use. However, as the engagement goes on and participants make changes to their facilities, the predicted and actual use should diverge, as is seen on the graph on the left (above). The graph on the right shows the difference between those yellow and grey lines on the graph on the left. The green line shows savings, and the blue line is the sum of savings over time. The current practice for commercial SEM has been to take the past few months, draw a straight line into the future, and use that to estimate annual savings.

Alan asked for clarification about how annual savings is estimated – does the program take the month 12 number and multiply by 12 months to get annual savings? Dan clarified that the program draws a line through the past three to four months to estimate savings. David asked if savings change depending on the season. Dan noted that this approach does not reflect potential changes in savings due to seasonality. Mike commented that implementers try to compensate for seasonality in the model. Dan noted that the model accounts for differences in weather from year to year, but the difference in savings due to seasonality is not eliminated. If

the measurement period is in the fall or winter, and you're looking at gas savings (from heating), it's not a straight-line extrapolation since there are no gas savings in the summer. However, often times that's what is done, and savings are under- or over-estimated. The evaluators are concerned that this approach does not take into account seasonal differences in savings.

Baseline Period: Currently, to create a model, the implementer selects a baseline period which is meant to capture the relationship between weather and energy use under normal building operations. A 1-2 year period of consistent operations preceding the period of SEM participation is selected. If there are anomalies in building operations, the baseline period can slide around in the period before the period of SEM. The evaluators recommended selecting either a 12 or 24-month period immediately preceding participation (no gaps) unless there is a strong, well-documented case for selecting a different time period with more typical operations.

Model Specification: Currently, monthly usage and weather data from the baseline period are used to develop a baseline regression model. Different variables and specifications are tried, and the baseline model with the highest R^2 is selected. The evaluators recommended continuing to use monthly, building-level baseline regression models, having implementers follow standard guidelines for regression, and using the minimum number of variables needed to obtain a good fit and create simple, understandable models. The evaluators also recommended using consistent methods to select variables and baseline models. These recommendations reinforce the idea of using best practices to create regression models.

Extrapolation of Results: The current practice is to extrapolate results from the last several months of the SEM engagement to obtain an estimate of annual savings. As mentioned before, any working savings from capital projects are subtracted to ensure savings are not double-counted. The recommendation here is to not extrapolate partial year results to annual savings. Instead, the evaluators recommend calculating cumulative, measured savings at the end of the first twelve months of SEM participation. So, when a participant enrolls and starts making changes, that's when the clock starts running, and one year later, the program can add up savings. The same thing can be done in the second year. This is a year by year approach rather than forecasting into the future. Alan asked if it is realistic to assume this will happen two, three, and four years into the future. Phil responded that since most models are based on monthly billing data, it is relatively straightforward. Customers are likely interested in calculating these numbers for themselves. In the early years, we measure everything, but as SEM expands to more buildings, we might consider moving to a sampling approach for booking savings. For example, we might find that on average, participants save 5%, and we could assume this and then true-up those savings.

Dan commented that this would mean the program would be self-evaluating, since this would basically do away with estimated savings. Alan asked about how measure life fits into this recommendation. Dan commented that measure life, how to claim savings, and the timing of claiming savings are all details that need to be figured out by the program.

Fred added that currently all SEM savings claimed have a three year measure life. Incremental savings in subsequent years are computed above what was claimed in the first year. With this new method we would still come back year after year to compute the savings. And we may find that there are savings that go beyond three years.

Kim said that if we implement the new method and take a three year measure life that we would need to re-baseline each site every year. So, in year two, you have to go back and re-baseline the model and figure out the incremental savings above the savings claimed in year one. And

then you would have to repeat that in each subsequent year. However, if we compute the savings with a one year measure life, then it would avoid that problem, but you take a savings hit in the first year.

Linking Results to Actions: At the moment, participants inconsistently record SEM actions, although PDCs encourage them to record these actions. The evaluators recommend working with participants to encourage them to record and track their operational and behavioral activities and link them to energy usage and savings.

Reporting Savings: Savings are presented to participants in MT&R workbooks using CUSUM graphs, and are reported to Energy Trust in year-end reports with capital project savings subtracted. The evaluators recommend simplifying and providing alternative formats for presenting savings to participants, since not everyone understood CUSUM graphs.

Energy Trust Take: The energy savings methodology recommendations will be adopted for the most part, but there are details around how to implement the recommended savings methods that still need to be figured out. It is worth noting that this is specific to commercial SEM; there are differences between commercial and industrial SEM. Linking results to specific actions may be difficult, since there are a large number of buildings involved and lots of coordination required. Finally, the program should simplify and improve reporting to participants.

Alan asked, how does this compare to what's done in Production Efficiency? Dan responded that on the industrial side, they have a one-year SEM approach, whereas with commercial, the vast majority of participants are doing continuous SEM. This makes this proposed methodology feasible, since the program is working them year after year and collecting data on a continuous basis. Additionally, industrial SEM does project out annual savings, but the method is different, and it handles seasonality better than commercial SEM does. Kim added that on the industrial side, the models are more complex – they often use interval data and have multiple production variables. Kim commented that there have been numerous evaluation of the industrial SEM methods and they are working. Bonneville Power Administration's SEM program has always done their program similar to what the commercial program has done; they have a 3-5 year SEM engagement. It's a loss leader, since in the first year, there aren't high levels of savings, but they are getting high savings in year two. BPA takes a one year measure life, and has the task of re-baselining the model every year, which is onerous.

Adam asked if you would have to re-baseline the models using a different historical period each time around. Kim responded that if an action is implemented in September of the first year of the engagement, then there are three months of savings from that action. The question is if you claim a three year measure life on that action, then how much savings do you claim for that same action in the next year, given that you have already claimed savings for three years. This can be a complex analytical task to try not to double count savings every year of the three year measure life if you don't re-baseline the model.

Mike commented that on the industrial side of things, businesses change their product mix, they might install new equipment, and to re-baseline when all of those changes are happening gets difficult. You're asking the question, "What would energy use have been if the facility hadn't made those changes?" At some point, the amount of effort it takes to answer that question compared to benefit gets to be a significant issue. On the commercial side, there are fewer variables impacting energy use: weather, seasonality, occupancy rates, hours of use, lease changes, and this has a direct impact on savings.

Kim commented that the industrial program is getting ready to design a continuous SEM offering, and may need to adopt this methodology, if it is affordable; re-doing models costs about \$20,000 per model, every year.

Dan commented that on the commercial side, the change in methods could result in cost savings, since instead of doing a complicated math exercise at the end of every year, you can just look at the updated model.

Mike said that the primary concern on the program side is how to transition the impact of lower claimed savings in the first year in the commercial market. For participants that have already started their first year, the change in method means lower than anticipated savings. For new entrants, the shift really only has a programmatic impact. For continuous SEM participants, we may need to implement both methods over a period of time to make the transition. But we need to get our heads around how this will work and how we shift to that without having a year with zero savings or confusing the participants. Dan added that a drawback of this new method is that the year one savings will be lower because they include the ramp-up period rather than only looking at savings into the future after the participants are up to speed.

Kim stated that when we finish a capital project in November, we don't count savings during the implementation period while things are being commissioned. We just count the full savings at the end of the year as if it had run for a year. One side effect of the new method will be first year costs that are high, because we're not counting all years of savings, so you have to be tolerant of a loss leader, and you will get the savings in subsequent years. Phil said that from his perspective the difference is really only in messaging and accounting. Alan said that over time the new method will be more accurate and we may find that there are 4-6 years of savings rather than just three.

5. Short Take: Multifamily Cadet Heater Billing Analysis

Presented by Dan Rubado

Background: The Multifamily program ran a pilot last year involving a new style of wall heater (Cadet Energy Plus). The pilot was intended to see if there were energy savings from these heaters. There are many standard efficiency wall heaters currently installed in Oregon Multifamily buildings, and this equipment represents a huge opportunity. In particular, cost is the primary concern of most Multifamily property owners; it's not feasible to expect that more efficient (and costly) technologies like ductless heat pumps will replace wall heaters in Multifamily buildings. The Cadet heaters are similar to wall heaters, but slightly more efficient. The main goal of the study was to assess whether the Cadet heaters save more energy than the wall heaters. The Cadet heaters have a better control mechanism and a better fan, which are potential drivers of savings. Additionally, they have an "away" button and a one-speed fan.

Pilot Summary: The pilot involved two market rate and three affordable housing properties. One-bedroom units in these buildings were randomized into a treatment or control group. Two Cadet heaters replaced 2 inefficient heaters in each treatment unit. Control units were not contacted in any way. 80 units were in the treatment group (split evenly across market rate and affordable housing) and 160 units were in the control group. Units were randomized such that every treatment dwelling unit in each building had two control units in that same building.

The data used for the analysis included unit characteristics, monthly electric billing data, and weather data. Units with insufficient data or outliers were dropped from the analysis.

Savings Analysis: Unit-level average daily electric use was modeled as a function of: average daily heating degree-days (HDD) and cooling degree-days (CDD), study period, study group, and square footage. A multilevel regression model accounted for the nesting of units within five separate properties and repeated, monthly observations. Savings were modeled as a function of weather using HDD interactions in the model. So, this was essentially a difference-in-difference model with HDD normalizing the effect of weather to a typical year. Savings were computed from model coefficients and HDDs for a typical year.

Other analysis techniques were performed to provide points of comparison to the results from the model described above. Other models tested were: simple models with no weather, post-period only models, and PRISM-like analysis. A post-only model could be used since this was a randomized controlled trial, and you would expect that the units in the treatment and control groups would be theoretically similar before the units were installed, so in the post-period, any differences seen are savings attributable to the installation of the heaters.

The final sample included 75 treatment and 146 control units after attrition. The treatment and control groups had virtually the same mean square footage and mean annual usage before the pilot.

Savings Results: We found that, on average, these units saved 232 annual kWh. However, the standard error and 90% confidence interval is very large. The p-value indicates this result is not statistically significant. The problem is the large amount of variability in usage from unit to unit, month to month, and year to year. This makes it difficult to detect small differences in use between groups. This result suggests a modest amount of savings, but it is not conclusive. However, when we look at the percentage savings, it looks like savings are 6% of total use and 14% of heating load.

Alan asked about the cost of these units. Dan replied the incremental cost is about \$80. Susan asked if free ridership is included in this estimate. Dan responded that this was just a technical pilot. Phil added that free ridership rates in Multifamily are low; there are few people installing this currently.

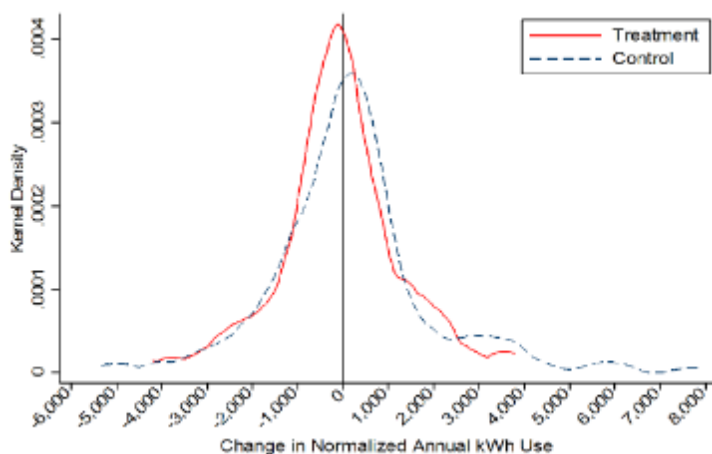
We looked at differences between subgroups, which is not terribly informative. We also compared results using a variety of different analysis methods (to test the sensitivity of the results), which are summarized in the table below. All of the methods provided estimates in the same ballpark. The PRISM-like model, which is the gold standard for billing analysis, provided an estimate very close to what we got with the best-fit multilevel weather model, which lends credence to this result.

Summary of results using different analysis methods

Analysis Method	Annual kWh Savings	SE	90% Conf. Interval	p-value	% Savings	% Heating Savings
Best fit multilevel weather model	232	228	-253, 718	0.365	6%	14%
Ordinary least squares regression without weather	187	222	-336, 710	0.461	4%	10%
Multilevel model without weather	221	196	-196, 639	0.321	5%	12%
Post-period multilevel weather model	289	141	-12, 590	0.110	7%	19%
PRISM-like weather normalized annual usage analysis	251	228	-125, 628	0.271	6%	14%

The graph below shows the large amount of variability in electric use (the change in normalized annual kWh for the treatment and control groups).

Variability in electric use



Study Limitations: A key limitation of the study relates to sample size. The sample size was too small, and there was too much variability to have much confidence. Given the amount of variability observed, you would need at least 700 units in each group to detect a difference. Additionally, the heating season following the pilot was the warmest winter on record in the Northwest. The model did control for weather, but this year’s winter was out of the normal range. Only one-bedroom apartments were studied; with more typical size units, you could potentially see higher savings.

Conclusions: It appears that Cadet Energy Plus heaters may produce modest savings, but there is too much variability in the evaluation results to be conclusive, and it would be cost-prohibitive to conduct a larger study. This is probably not a highly cost-effective replacement measure,

given the range of savings estimates, but a low cost delivery channel could reduce the risk of low savings.

Recommendations: The program should not proceed with a Cadet wall heater replacement measure. They should explore upstream delivery channels with lower costs. This could allow small per-unit savings to be cost-effective, and mitigate the risk of “real” savings being lower than estimated. Savings estimates should be very conservative to hedge against uncertainty, and savings should be re-evaluated once more heaters are installed.

Alan asked about how often these units are being installed in new construction, and if you could calculate savings based on hours of operation. Dan commented that it’s difficult to calculate savings because this is a behavioral measure (in a sense). Paul added that it’s not necessarily changing the temperature in the room – it is changing comfort, which is harder to measure. It has to do with better mixing the air in rooms. If people are comfortable, they use them less. It motivates them to interact with their thermostat in a different way. Dan commented that one of the savings mechanisms is to give occupants better control by way of a better digital thermostat and the “away” function; from an engineering perspective, this makes it difficult to estimate savings.

Susan asked what an upstream program would look like. Phil responded that it would involve working with the manufacturer or distributor to buy down the cost of those units to get them to displace standard efficiency wall heater units. The Multifamily program has done similar efforts to this in the past – working with distributors to buy down the cost of lighting and other products, etc. Also, we might count spillover from working upstream and instead of paying for each unit, we would pay for market transformation. In this case, it doesn’t have to be cost-effective for each unit, rather we would claim market spillover savings. We need to discuss with Cadet how much it costs them to make these heaters above their standard heaters so we can figure out how much we need to pay to get the less efficient heaters out of the market. Then, we can talk about what it would take to get those things into code.

Dan said that in summary, there may be modest energy savings, but due to the large amount of variability in the study, it’s difficult to say how much savings for sure.

Wrap-Up & Next Steps

Evaluation staff will present a refresher on our evaluation approach at the next board meeting (July 29th). Alan suggested focusing on what Energy Trust does with the work done by Evaluation. Susan commented that it would be helpful to focus on realization rates and the impact those have on programs and the organization. Alan asked that we send the draft PPT to all board evaluation committee members for review.

Erika will send out a Doodle poll to schedule out the next meeting or two – possibly one in July and one in September.

A Study on the Residential Market Valuation of EPS and Solar PV in the Greater Portland and Bend, Oregon Markets

Prepared by:



Presented to:



With research assistance and support from:



June 9, 2014

Executive Summary

A very large number of new homes and a significant number of existing homes (5,300 to date) that are performance tested in Oregon receive an Energy Performance Score (EPS). The metric is thus an integral part of the single-family energy efficient construction marketplace, which also includes residences with solar photovoltaic (PV) systems and green certified homes.

The goal of the study is to determine the contributory value (if any) of EPS and solar PV in residential single-family-house sales in the Portland, Oregon¹ area. Because EPS is the primary metric with which new home energy performance is measured, it is closely tied to green certification of new homes. Thus, an analysis of EPS requires consideration of green certified homes. Results of the analysis applied in this study conclude the following findings, among others:

- That there is an increased market value associated with residential PV systems in the study area.
- That there is a statistically significant price premium for certified over non-certified homes in the study area, and these certified homes generally include EPS.
- That EPS is significantly underrepresented in the RMLS, the primary regional real estate database from which the majority of all real estate market data is sourced.

The valuation results provide additional support to previous local and regional valuation studies and lead to the recommendation that Energy Trust continue to focus on the promulgation of EPS in the local and regional market, EPS' accurate and consistent listing on RMLS, and additional marketing of EPS to buyers of homes, whether new construction or retrofit. It will be through these efforts that the market value of energy efficiency in the region will be clarified.

¹ The Bend market was part of the original research plan, but early examination of the results suggested that Bend had completely different market dynamics over the study period than Portland. Numbers of sales were low at times, and fluctuations in price over time were extreme. For these reasons, Bend was treated separately.

MEMO



Date: August 14, 2015
To: Board of Directors
From: Phil Degens, Evaluation Manager
Sarah Castor, Evaluation Sr. Project Manager
Lizzie Rubado, Senior Project Manager Commercial Solar
Marshall Johnson, Senior Program Manager, Residential
Subject: Staff Response to the Solar and EPS Valuation Study

The study examined the contributory value of EPS and installed solar systems on home price. This study mirrored the findings and results of past Energy Trust studies on the impacts of solar on home valuation. This was the first time that Energy Trust examined the impact of EPS on home value.

Homes that have solar systems installed tend to turn over infrequently, resulting in a small study sample. Additionally, EPS values are underrepresented on RMLS, the primary source for real estate value data used in this study. The small samples cause estimated impacts to have a fairly large error band. The study did conclude that there is a premium for a home with a solar system compared to a home without a system and that the premium appeared to be more than the out of pocket cost to the homeowner for the system. This finding is consistent with our previous study and a national study of the impact of solar on home values. Green certified homes, which can include homes with an EPS, also were shown to have a statistically significant price premium, although there is no apparent premium for EPS itself at this time.

Energy Trust plans on repeating the analysis of solar's effect on residential valuation in a few years, expecting that the passing of time will lead to greater turnover in homes with installed solar systems, a larger number of homes from which to sample, and more robust results. Also, the increase in third party ownership will add an additional area of research.

EPS appears to still be in the early phases of market adoption. It is also only one aspect of energy efficiency home certification as it is often used in tandem with other certifications such as ENERGY STAR and Earth Advantage. As it comes into greater use for both new construction and existing homes, and is captured in RMLS data sets, Energy Trust will revisit this area of research. As with solar, we plan to wait a few more years before researching the impacts again.

**Energy Trust New Buildings Program
2013-2014 Process Evaluation Report
Final**

Prepared by

PWP, Inc.

Evergreen Economics

Wirtshafter Associates, Inc.

February 2015

Executive Summary

This report presents the results of the process evaluation of Energy Trust of Oregon’s New Buildings (NB) program for 2013 and into 2014. The NB program provides financial incentives and technical assistance to owners who install energy efficiency measures in new commercial construction, major renovation and tenant improvement projects. The program closed 389 projects in 2013, a more than 25 percent increase over 2012. It enrolled another 422 projects for future completion – the largest annual enrollment to date for the NB program.

Exhibit ES-1 – 2013 Electric and Gas Savings -- Total

Sector	Projects	Savings	
		kWh	Therms
New Buildings	304	76,371,241	338,173
New Multifamily	85	5,314,817	113,325
Total	389	81,686,058	451,497

The goal of this process evaluation was to obtain feedback on program design and implementation that can be used to more effectively and efficiently deliver energy efficiency in new buildings and improve customer satisfaction. Evaluation activities included a combination of secondary data and program document review and primary data collection, including staff interviews, attending early design meetings, accompanying NB program staff on post-installation inspections, and interviews with 41 current program participants. In addition, results of phone surveys conducted with 2013 participants as part of Energy Trust’s data collection effort for reporting annual customer satisfaction were incorporated into the current evaluation findings.

Key findings reported in this report as drawn from these data collection and analysis activities are summarized below.

Conclusions

- The NB program continues to meet its goals and the needs of new building owners and trade and design allies. Savings come from a diverse mix of participants in terms of track, building type, fuel, utility, and geographic region. To achieve its goals, however, the program remained heavily dependent on data centers, which accounted for half of 2013 kWh savings.
- The NB program continues to achieve these savings above and beyond one of the most stringent building codes in the country, and is engaging most of the key designers, engineers and owners in the Oregon market.
- A comparison of NB participation data to Dodge new construction data from McGraw-Hill showed that, overall, the NB program is reaching at least 58% of the Dodge project

counts. Note, however, that Dodge data include projects that may not be built, and in this accounting may include some projects that are renovations and not new construction or additions. Dodge also does not always list the smaller projects that would qualify for the Market Solutions offering, so the NB program's share of overall projects is probably higher.

- The Market Solutions offering of the NB program has been helpful in assisting many commercial projects under 70,000 square feet, which made up more than three-fourths of participants in 2013. However, most of the 2014 participants we spoke to who were eligible for Market Solutions were not fully aware of or did not understand this option. In fact, as was the case in the previous process evaluation, participants – whether owners or other members of the design team -- were generally unaware of the alternative participation tracks available to them, and relied on NB program staff to help them identify the appropriate path to participation.
- The NB program appears to be engaging with more of its participants early in the design and construction process, with over half the 2014 participants we spoke to having made contact with the program when their project was in the programming or conceptual design phase – up from 42% in 2012.
- This has helped encourage more design teams to conduct early design meetings and charrettes, including about one-third of the Market Solutions-eligible 2014 participants we interviewed. Participants who took advantage of Early Design Assistance from the NB program were very satisfied with it, with all but one giving it a “4” or “5” rating on a 1-to-5 scale where 5 represented the highest satisfaction level.
- In the EDA meetings that the evaluation team observed, it seemed that greater awareness of NB program options before the initial design was developed could have led to a more thorough evaluation of efficient design alternatives during the meetings.
- As the commercial new construction market has revived, program staff have had to work hard to keep up with all the new construction projects so that the NB program can capitalize on them. The faster pace of the market also made the qualifying products list (QPL) for LED lighting a greater challenge, since there was more pressure on designers to go with unlisted products rather than wait for the QPL to catch up. Energy Trust successfully revised the requirements for LED lighting in a way that maintained quality control but provided greater flexibility to projects wanting to use LEDs.
- Energy Trust appears to have done a good job in encouraging candidate woman- and minority-owned (WMO) firms to become involved with the NB program as allies. In all categories except woman-owned electrical contractors and woman-owned

plumbing/HVAC contractors, the percentage of WMO allies exceeds the percentage of WMO firms in the total population.

- Among 2013 participants, satisfaction with the program was generally high, with mean satisfaction levels for all aspects of program delivery averaging more than 4.3 on a 1-to-5 scale. Among individual program elements, the only items to receive average ratings of less than 4.5 were the enrollment process and paperwork (4.45), the ease of preparing the application (4.43) and the timeliness of the approval process for those who sought approval from Energy Trust prior to purchasing equipment (4.36).
- Current participants are also very pleased with the NB program, NB staff and the level of communication and support they receive. Overall program satisfaction among 2014 participants (whose projects were still in progress) averaged 4.55, with 97% of the 39 respondents providing “4” or “5” ratings. Almost all of the reasons offered for the ratings reiterated the respondents’ satisfaction with the program and its staff, with no major concerns mentioned.
- One comment that was often made by 2012 participants, but was conspicuously absent among current year participants, was concern about the uncertainty surrounding the final incentive. Since all these 2014 participants were Market Solutions candidates, the clearly defined “good”, “better”, “best” levels of performance and incentives seem to have minimized that concern.

Recommendations

Several recommendations that were made in the 2012 process evaluation report have been or are being implemented by the NB program. The program is continuing its outreach to smaller projects through the use of the Market Solutions offering and working with design-build projects; however, the design-build status of projects is still not included in the tracking data. In addition, the recommendation that paperwork be streamlined to the extent possible appears to have resulted in fewer participant concerns expressed by 2014 participants regarding the complexity of the application process. Similarly, we heard no concerns regarding NB staff turnover, so any that is taking place is being handled smoothly. Recommendations that have not, to our knowledge, been implemented include:

- Supplementing the early design assistance (EDA) incentive with a small bonus incentive for the architect, engineer, or green building consultant to prepare a follow-up report that details what measures were ultimately incorporated into the design and why.
- A mechanism for reinforcing participant awareness that they received design assistance if no early design meeting was held.

- To encourage innovation, offer a bonus incentive for the first 5 or 10 projects using an emerging energy efficient technology.

Based on the conclusions summarized above and other findings throughout the report, the following recommendations are designed to help ensure that NB program efforts remain on track and address any aspects of program delivery that may inhibit participation.

- Provide greater visibility to the Market Solutions offering, particularly among trade and design allies, but also among owners. Use of the good-better-best levels of performance and incentives appears to resonate with participants, and might be an effective way to expand awareness of Market Solutions.
- Because all aspects of energy efficiency increasingly emphasize a behavioral approach, it would be appropriate to provide NB participants with guidance on efficient building operations. Since Market Solutions provides a good-better-best set of criteria for design, it may be worth developing a similar set of good-better-best operational guidelines for each building type.
- Continue to use the EDA meetings to bring together all the members of the design team, but make the meetings more effective by:
 - Before the meeting, providing a summary of program options to whoever prepares the preliminary design so that those options are initially taken into account and can be more effectively discussed at the meeting.
 - Providing owners (and others) with a one-page summary of the key options under consideration at the meeting, as well as a summary of the outcome.
- As a parallel effort, consider providing an incentive for a post-completion project debriefing where the participants who attended the design meeting discuss the final as-built project and compare it to what was discussed initially. Such a discussion would provide valuable feedback, particularly to the allies who will be working on other, similar projects in the future.

Several of our recommendations are specifically related to allies, in part because the comparison of McGraw-Hill (Dodge) “players” data to program tracking data showed that there are multiple potential allies who are not currently touched by the program. Trade and design allies are very valuable in leveraging NB program resources, and Energy Trust needs to more systematically cultivate the ally relationship beyond firms who actually signed up with the program.

- Program tracking data should include, for each project, the names and contact information for all the key allies working on each project: architect, engineer, lighting designer, electrical contractor, mechanical contractor, general contractor, third party

construction or project manager and green building consultant. At the time of program participation, this information is readily available, and while it may be more cumbersome to enter multiple contacts for each project, doing so would help build a much more complete database of firms who are touched by the program. While Energy Trust's own tracking system may not be structured to accommodate this information, the PMC for the program should be encouraged to provide it to Energy Trust periodically so that program and portfolio planners can improve their outreach and marketing efforts.

- Even firms that work on a participating project but do not interact directly with program staff or with program application forms or other paperwork should be included in Energy Trust's tracking data, and perhaps be sent a "thank you for participating in the Energy Trust New Buildings program; contact us to learn more" card upon project completion.
- Allies should receive more information and education on program offerings. The lack of understanding of the Market Solutions offering among many allies is one indication of the need for this. More fundamentally, the NB program is inevitably going to change as the Oregon Code changes, so periodic information and training updates must be provided.
- Many ally organizations may have only a single employee who is knowledgeable about and active in the NB program, so a concerted effort should be made to have at least two people at each organization available to act as NB program contacts. The fact that the Oregon new construction market is rebounding suggests that more people will be changing jobs, and it is important that program ties to ally firms be maintained when key personnel leave.
- Energy Trust's willingness to listen to allies on the issue of the LED QPL helped avert the potential loss of participation and savings on this issue; actively seeking out feedback from all groups of trade and design allies will ensure that any similar issues can be quickly identified and addressed.
- Many allies have been involved in multiple NB projects over the years, and it may be appropriate to recognize both the length and activity level of their involvement; perhaps with a special designation on the Energy Trust website.

MEMO



Date: July 27, 2015
To: Board of Directors
From: Sarah Castor, Evaluation Sr. Project Manager
Jessica (Rose) Iplikci, Business Sector Manager, New Buildings Program
Subject: Staff Response to the New Buildings 2013-2014 Process Evaluation

The 2013-2014 New Buildings Process Evaluation was an opportunity to take an in-depth look at the current state of the program as a whole and explore specific topics, including the market penetration of the program and customer experience with the Market Solutions offerings that the program rolled out in late 2012.

The program has done an excellent job of meeting its savings goals over the last several years, while at the same time streamlining and enhancing the participation process for customers. Evidence of this is present in the high satisfaction rates of participants and in their comments that the program provided good customer support while motivating participants to design and construct high performance buildings.

The estimate that Energy Trust was involved in about 58 percent of projects in its territory in 2012 and 2013 indicates that the program has maintained a high relevance in a dynamic market. The program recommends using this market penetration estimate as only a rough indicator, as it's very difficult to measure the true size of the program's reachable market using available data sources. There are a number of factors that limit our ability to rely on Dodge data (a national data set used in this analysis) for project activity beyond a general sense. For example, projects may be listed more than once because of mixed use types, and therefore double counted in terms of the number of projects and/or square footage. We have also observed projects that are postponed or cancelled may remain on the Dodge active project list. In addition to these issues, project types are often categorized in a way that is not consistent with program sorting rules, so a project that Energy Trust would consider a retrofit might be classified as a building renovation. Unfortunately, many of these issues are common among other construction data sets as well, so there is not a simple way to accurately determine the percentage of projects that New Buildings is serving.

Based on the findings and conclusions from the report, we see the following take-aways and opportunities for the New Buildings program:

- The program has received positive feedback from owners and allies on new offerings designed for specific markets, tailored to the way they make decisions, and uptake is high. Market Solutions, a package of incentives tailored to specific

business types pursuing small new construction, is among the most noted example and will be expanded to address future market needs.

- Satisfaction with the overall program and program representatives has been consistently high.
- Project documentation provided by customers has been streamlined. Online forms designed to ease participation and increase market reach are being planned along with other enhancements, and should be reviewed in the next program evaluation.
- Early Design Assistance meetings have been effective and the program will continue to improve the structure with new tools; the recent Energy Use Intensity Targeting and Planning tool is designed to identify advanced energy saving strategies.
- Occupant engagement is a topic area addressed through the program's Allies for Efficiency training and education series. Supplemental educational materials may be developed in the future once successful occupancy practices are known.
- In-person ally education will be continued with supporting program communications designed to raise the level of awareness of overall program changes and enhancements.
- Ally recognition is very important and though often provided in-person by program representatives, the program is planning greater public recognition of individuals and project teams through a variety of industry events.
- The evaluator's recommendations to add additional firms to our project tracker data base that are not approved by the project owner will not be implemented by the program. Based on our customer confidentiality requirements, the program is extremely careful to only communicate with those firms that are identified directly by the owner. The program manages projects with a large number of actors and will only track contacts listed by the owner on the enrollment form or that are directly working on the project.
- New Buildings continues to build upon established relationships with minority associations and organizations, including the Oregon Association of Minority Entrepreneurs, the Association of Minority Contractors, minority chambers, and Native American tribes. Specific market engagement activities include targeted outreach to Disadvantaged, Minority- and Woman-Owned, and Emerging Small Business (DMWESB) classified businesses as well as participation and

representation at industry events that focus on the minority business community including the Daily Journal of Commerce's DMWESB networking and awards events, National Association of Women in Construction, and the Association of Commercial Real Estate Women.

Tab 3

Energy Trust of Oregon
BALANCE SHEET
July 31, 2015
(Unaudited)

	July 2015	June 2015	Dec 2014	July 2014	Change from one month ago	Change from Beg. of Year	Change from one year ago
Current Assets							
Cash & Cash Equivalents	30,660,832	33,020,705	51,411,367	66,975,266	(2,359,873)	(20,750,535)	(36,314,435)
Investments	70,742,889	69,557,425	64,490,244	52,678,359	1,185,464	6,252,645	18,064,530
Receivables	323,449	337,382	323,531	162,615	(13,932)	(82)	160,835
Prepaid Expenses	527,318	425,506	405,430	765,818	101,812	121,889	(238,500)
Advances to Vendors	1,376,599	1,828,314	1,482,149	1,872,443	(451,715)	(105,550)	(495,844)
Current Portion Note Receivable			0	10,000	0	0	(10,000)
Total Current Assets	103,631,087	105,169,332	118,112,720	122,464,500	(1,538,245)	(14,481,633)	(18,833,413)
Fixed Assets							
Computer Hardware and Software	3,350,062	3,176,080	1,653,762	1,434,324	173,982	1,696,300	1,915,738
Software Development in Progress	207,256	280,462	1025908.62	504729.89	(73,206)	(818,652)	(297,474)
Leasehold Improvements	318,964	318,964	318,964	313,333	-	-	5,631
Office Equipment and Furniture	698,874	698,874	679,343	600,662	-	19,530.75	98,212
Total Fixed Assets	4,575,157	4,474,381	3,677,978	2,853,050	100,776	897,178	1,722,107
Less Depreciation	(2,278,752)	(2,197,751)	(1,831,551)	(1,657,328)	(81,000)	(447,201)	(621,424)
Net Fixed Assets	2,296,405	2,276,630	1,846,428	1,195,722	19,776	449,977	1,100,684
Other Assets							
Rental Deposit	132,340	132,340	135,340	64,461	0	(3,000)	67,879
Deferred Compensation Asset	691,211	682,961	630,176	544,596	8,250	61,035	146,615
Long Term Portion Note Receivable	86,789	86,789	86,789	90000	-	-	(3,211)
Total Other Assets	910,340	902,090	852,305	699,058	8,250	58,035	211,283
Total Assets	106,837,832	108,348,051	120,811,454	124,359,280	(1,510,219)	(13,973,621)	(17,521,447)
Current Liabilities							
Accounts Payable and Accruals	8,465,582	8,555,832	31,924,631	8,263,825	(90,250)	(23,459,048)	201,757
Salaries, Taxes, & Benefits Payable	765,845	799,702	671,849	698,402	(33,857)	93,996	67,443
Total Current Liabilities	9,231,427	9,355,534	32,596,480	8,962,227	(124,107)	(23,365,052)	269,200
Long Term Liabilities							
Deferred Rent	330,243	333,021	349,692	356,751	(2,778)	(19,449)	(26,508)
Deferred Compensation Payable	691,211	682,961	632,976	547,396	8,250	58,235	143,815
Other Long-Term Liabilities	5,460	5,380	5,185	8,123	80.00	275	(2,663)
Total Long-Term Liabilities	1,026,914	1,021,362	987,852	912,270	5,552	39,061	114,643
Total Liabilities	10,258,341	10,376,896	33,584,332	9,874,497	(118,555)	(23,325,991)	383,844
Net Assets							
Unrestricted Net Assets	96,579,492	97,971,155	87,227,121	114,484,783	(1,391,664)	9,352,370	(17,905,291)
Total Net Assets	96,579,492	97,971,155	87,227,121	114,484,783	(1,391,664)	9,352,370	(17,905,291)
Total Liabilities and Net Assets	106,837,832	108,348,051	120,811,454	124,359,280	(1,510,219)	(13,973,621)	(17,521,447)

Energy Trust of Oregon
Cash Flow Statement-Indirect Method
Monthly 2015

	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Year to Date</u>
Operating Activities:								
<i>Revenue less Expenses</i>	8,620,993	6,726,499	1,531,158	715,318	(2,736,736)	(4,113,196)	(1,391,665)	\$ 9,352,369
<i>Non-cash items:</i>								
Depreciation	40,242	41,284	64,566	71,460	73,396	75,252	81,000	447,200
Change in Reserve on Long Term Note	-	-	-	-	-	-	-	-
Loss on disposal of assets	-	-	-	-	-	-	-	-
Receivables	5,800	11,583	-	(7,684)	-	(10,698)	5,001	4,002
Interest Receivable	4,268	(50,180)	58,204	8,452	(43,458)	9,862	8,932	(3,920)
Advances to Vendors	543,337	465,160	(1,177,147)	228,917	594,462	(1,000,894)	451,715	105,550
Prepaid expenses and other costs	14,982	47,842	(254,416)	68,730	7,275	95,511	(101,812)	(121,888)
Accounts payable	(20,265,729)	(2,448,214)	(352,009)	212,675	(972,984)	457,462	(90,250)	(23,459,049)
Payroll and related accruals	17,794	52,944	96,210	(24,170)	24,831	10,229	(25,607)	152,231
Deferred rent and other	(11,515)	(11,028)	(10,673)	(8,029)	(13,988)	(11,029)	(10,948)	(77,210)
Cash rec'd from / (used in)								
Operating Activities	(11,029,828)	4,835,890	(44,107)	1,265,669	(3,067,202)	(4,487,501)	(1,073,634)	\$ (13,600,713)
Investing Activities:								
Investment Activity (1)	(2,475,092)	(5,431,428)	(1,217,888)	2,835,537	3,803,928	(2,582,238)	(1,185,464)	(6,252,645)
(Acquisition)/Disposal of Capital Assets	(132,268)	(142,396)	(143,192)	(151,901)	(98,053)	(128,592)	(100,776)	(897,178)
Cash rec'd from / (used in) Investing Activities	(2,607,360)	(5,573,824)	(1,361,080)	2,683,636	3,705,875	(2,710,830)	(1,286,240)	\$ (7,149,823)
Cash at beginning of Period	51,411,367	37,774,180	37,036,243	35,631,058	39,580,364	40,219,037	33,020,705	51,411,367
Increase/(Decrease) in Cash	(13,637,187)	(737,934)	(1,405,187)	3,949,305	638,673	(7,198,331)	(2,359,874)	(20,750,536)
Cash at end of period	<u>\$ 37,774,180</u>	<u>\$ 37,036,243</u>	<u>\$ 35,631,058</u>	<u>\$ 39,580,364</u>	<u>\$ 40,219,037</u>	<u>\$ 33,020,705</u>	<u>\$ 30,660,832</u>	<u>\$ 30,660,832</u>

(1) As investments mature, they are rolled into the Repo account.
Investments that are made during the month reduce available cash.

Energy Trust of Oregon
Cash Flow Projection
January 2015 - December 2016

	Actual							2015 Budget				
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	15,740,912	15,125,779	12,539,730	13,204,663	10,891,616	10,343,345	11,275,486	10,758,944	11,393,132	11,589,893	11,303,329	13,755,802
From other sources	5,800	11,583	-	(7,684)	700	(10,698)	5,351	-	-	-	-	-
Investment Income	110,630	(27,478)	123,371	70,057	8,631	12,301	48,465	-	-	-	-	-
Total cash in	15,857,342	15,109,884	12,663,101	13,267,036	10,900,947	10,344,948	11,329,302	10,758,944	11,393,132	11,589,893	11,303,329	13,755,802
Cash Out:	29,494,530	15,847,819	14,068,288	9,317,730	10,262,273	17,543,282	13,689,174	11,539,022	13,762,252	14,542,129	10,793,637	19,428,369
Net cash flow for the month	(13,637,188)	(737,935)	(1,405,187)	3,949,306	638,674	(7,198,334)	(2,359,872)	(780,078)	(2,369,120)	(2,952,236)	509,692	(5,672,567)
Beginning Balance: Cash & MM	51,411,367	37,774,180	37,036,248	35,631,058	39,580,364	40,219,037	33,020,705	30,660,832	29,880,754	27,511,634	24,559,398	25,069,090
Ending cash & MM	37,774,180	37,036,243	35,631,058	39,580,364	40,219,037	33,020,705	30,660,832	29,880,754	27,511,634	24,559,398	25,069,090	19,396,523

Future Commitments

Renewable Incentives	17,600,000	17,500,000	17,000,000	16,900,000	16,600,000	14,600,000	14,400,000	14,200,000	11,400,000	10,300,000	10,400,000	10,400,000
Efficiency Incentives	48,400,000	47,100,000	63,000,000	60,400,000	58,500,000	62,200,000	58,900,000	58,800,000	61,000,000	77,100,000	71,200,000	61,400,000
Emergency Contingency Pool	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
Total Commitments	71,000,000	69,600,000	85,000,000	82,300,000	80,100,000	81,800,000	78,300,000	78,000,000	77,400,000	92,400,000	86,600,000	76,800,000

(1) Included 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 2015 - December 2016

2016 Budgeted Amounts												
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	14,500,000	14,800,000	14,500,000	13,500,000	11,100,000	10,400,000	11,700,000	10,700,000	10,300,000	12,600,000	11,300,000	13,600,000
From other sources												
Investment Income	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Total cash in	14,524,000	14,824,000	14,524,000	13,524,000	11,124,000	10,424,000	11,724,000	10,724,000	10,324,000	12,624,000	11,324,000	13,624,000
Cash Out:	33,500,000	10,700,000	12,000,000	12,700,000	11,900,000	13,900,000	14,800,000	12,600,000	14,700,000	13,700,000	14,600,000	16,800,000
Net cash flow for the month	(18,976,000)	4,124,000	2,524,000	824,000	(776,000)	(3,476,000)	(3,076,000)	(1,876,000)	(4,376,000)	(1,076,000)	(3,276,000)	(3,176,000)
Beginning Balance: Cash & MM	19,396,523	420,516	4,544,516	7,068,516	7,892,516	7,116,516	3,640,516	564,516	(1,311,484)	(5,687,484)	(6,763,484)	(10,039,484)
Ending cash & MM	420,516	4,544,516	7,068,516	7,892,516	7,116,516	3,640,516	564,516	(1,311,484)	(5,687,484)	(6,763,484)	(10,039,484)	(13,215,484)
Future Commitments												
Renewable Incentives	10,400,000	11,000,000	11,900,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000
Efficiency Incentives	60,900,000	60,600,000	59,000,000	57,900,000	57,700,000	55,700,000	54,700,000	54,700,000	53,500,000	53,300,000	53,300,000	52,900,000
Emergency Contingency Pool	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
Total Commitments	76,300,000	76,600,000	75,900,000	75,900,000	75,700,000	73,700,000	72,700,000	72,700,000	71,500,000	71,300,000	71,300,000	70,900,000

(1) Included 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
Income Statement - Actual and Prior Yr Comparison
For the Month Ending July 31, 2015
(Unaudited)

	July				YTD			
	Actual	Actual Prior Year	Prior Year Variance	Variance %	Actual	Actual Prior Year	Prior Year Variance	Variance %
REVENUES								
Public Purpose Funds-PGE	2,888,756	2,722,282	166,474	6%	21,721,302	22,277,172	(555,870)	-2%
Public Purpose Funds-PacifiCorp	2,121,670	2,037,858	83,812	4%	15,913,355	16,317,523	(404,167)	-2%
Public Purpose Funds-NW Natural	420,046	477,561	(57,515)	-12%	10,139,415	14,118,647	(3,979,232)	-28%
Public Purpose Funds-Cascade	30,256	46,452	(16,196)	-35%	927,925	2,060,238	(1,132,313)	-55%
Total Public Purpose Funds	5,460,727	5,284,153	176,575	3%	48,701,998	54,773,580	(6,071,582)	-11%
Incremental Funds - PGE	3,210,511	3,605,506	(394,995)	-11%	25,063,113	30,571,899	(5,508,786)	-18%
Incremental Funds - PacifiCorp	1,578,103	1,909,689	(331,586)	-17%	12,625,739	15,832,766	(3,207,027)	-20%
NW Natural - Industrial DSM	1,026,144	1,024,350	1,794		2,052,288	2,048,702	3,586	0%
NW Natural - Washington					678,392	527,177	151,215	29%
Contributions	350		350		1050	13,400	(12,350)	-92%
Revenue from Investments	39,533	24,872	14,661	59%	349,897	120,875	229,022	189%
TOTAL REVENUE	11,315,369	11,848,570	(533,201)	-5%	89,472,478	103,888,400	(14,415,922)	-14%
EXPENSES								
Program Subcontracts	4,188,594	3,344,861	(843,734)	-25%	29,459,564	26,851,571	(2,607,993)	-10%
Incentives	6,889,731	5,206,720	(1,683,012)	-32%	39,226,023	29,331,987	(9,894,036)	-34%
Salaries and Related Expenses	860,698	834,737	(25,961)	-3%	6,134,177	6,103,695	(30,482)	0%
Professional Services	516,160	668,297	152,137	23%	3,726,883	3,717,542	(9,341)	0%
Supplies	3,594	5,030	1,435	29%	21,422	23,812	2,390	10%
Telephone	5,268	4,405	(863)	-20%	34,230	31,036	(3,194)	-10%
Postage and Shipping Expenses	892	1,276	384	30%	8,999	7,207	(1,792)	-25%
Occupancy Expenses	53,558	47,846	(5,712)	-12%	377,203	376,340	(863)	0%
Noncapitalized Equip. & Depr.	117,690	54,173	(63,518)	-117%	679,715	391,971	(287,743)	-73%
Call Center	12,589	13,325	737	6%	93,601	86,869	(6,732)	-8%
Printing and Publications	7,375	6,971	(404)	-6%	52,503	78,542	26,038	33%
Travel	17,813	6,728	(11,085)	-165%	82,759	73,485	(9,274)	-13%
Conference, Training & Mtng Exp	13,563	7,060	(6,503)	-92%	88,499	101,618	13,118	13%
Interest Expense and Bank Fees			0		1,774	2,000	226	11%
Insurance	8,512	8,339	(173)	-2%	61,432	59,505	(1,927)	-3%
Miscellaneous Expenses	103.85		(104)		225.16	3,016	2,791	
Dues, Licenses and Fees	10,891	17,871	6,980	39%	71,099	93,992	22,893	24%
TOTAL EXPENSES	12,707,032	10,227,638	(2,479,394)	-24%	80,120,108	67,334,189	(12,785,919)	-19%
TOTAL REVENUE LESS EXPENSES	(1,391,664)	1,620,932	(3,012,595)	186%	9,352,370	36,554,211	(27,201,841)	-74%

Energy Trust of Oregon
Income Statement - Actual and YTD Budget Comparison
For the Month Ending July 31, 2015
(Unaudited)

	July				YTD			
	Actual	Budget	Budget Variance	Variance %	Actual	Budget	Budget Variance	Variance %
<u>REVENUES</u>								
Public Purpose Funds-PGE	2,888,756	2,709,306	179,449	7%	21,721,302	22,170,581	(449,279)	-2%
Public Purpose Funds-PacifiCorp	2,121,670	2,385,224	(263,554)	-11%	15,913,355	16,476,221	(562,865)	-3%
Public Purpose Funds-NW Natural	420,046	360,729	59,318	16%	10,139,415	10,664,605	(525,190)	-5%
Public Purpose Funds-Cascade	30,256	57,411	(27,155)	-47%	927,925	1,205,637	(277,711)	-23%
Total Public Purpose Funds	5,460,727	5,512,670	(51,943)	-1%	48,701,998	50,517,044	(1,815,045)	-4%
Incremental Funds - PGE	3,210,511	2,932,013	278,498	9%	25,063,113	24,861,196	201,917	1%
Incremental Funds - PacifiCorp	1,578,103	1,758,284	(180,181)	-10%	12,625,739	12,187,543	438,197	4%
NW Natural - Industrial DSM	1,026,144	999,140	27,004		2,052,288	1,998,281	54,007	3%
NW Natural - Washington			0		678,392	705,676	(27,284)	-4%
Contributions	350		350		1050		1050	
Revenue from Investments	39,533	24,000	15,533	65%	349,897	168,000	181,897	108%
TOTAL REVENUE	11,315,369	11,226,107	89,262	1%	89,472,478	90,437,739	(965,261)	-1%
<u>EXPENSES</u>								
Program Subcontracts	4,188,594	4,334,556	145,962	3%	29,459,564	29,418,708	(40,856)	0%
Incentives	6,889,731	5,852,486	(1,037,245)	-18%	39,226,023	36,807,624	(2,418,399)	-7%
Salaries and Related Expenses	860,698	971,072	110,374	11%	6,134,177	6,894,825	760,648	11%
Professional Services	516,160	741,974	225,814	30%	3,726,883	4,791,589	1,064,706	22%
Supplies	3,594	3,650	56	2%	21,422	25,550	4,128	16%
Telephone	5,268	5,458	191	3%	34,230	38,458	4,228	11%
Postage and Shipping Expenses	892	1,100	208	19%	8,999	7,700	(1,299)	-17%
Occupancy Expenses	53,558	61,519	7,960	13%	377,203	430,632	53,428	12%
Noncapitalized Equip. & Depr.	117,690	131,704	14,014	11%	679,715	582,177	(97,537)	-17%
Call Center	12,589	13,000	412	3%	93,601	91,000	(2,601)	-3%
Printing and Publications	7,375	10,946	3,571	33%	52,503	76,621	24,118	31%
Travel	17,813	14,508	(3,304)	-23%	82,759	117,558	34,799	30%
Conference, Training & Mtng Exp	13,563	24,962	11,399	46%	88,499	194,831	106,332	55%
Interest Expense and Bank Fees		208	208	100%	1,774	1,458	(316)	-22%
Insurance	8,512	9,167	654	7%	61,432	64,167	2,735	4%
Miscellaneous Expenses	104		(104)		225.16		-225.16	
Dues, Licenses and Fees	10,891	4,723	(6,168)	-131%	71,099	91,361	20,261	22%
TOTAL EXPENSES	12,707,032	12,181,034	(525,998)	-4%	80,120,108	79,634,259	(485,849)	-1%
TOTAL REVENUE LESS EXPENSES	(1,391,664)	(954,927)	(436,736)	-46%	9,352,370	10,803,480	(1,451,110)	-13%

Energy Trust of Oregon
Statement of Functional Expenses
For the Seven Months Ending July 31, 2015
(Unaudited)

	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total	Budget	Variance	% Var
Program Expenses										
Incentives/ Program Management & Delivery	\$61,963,470	\$ 6,722,117	\$ 68,685,587				\$ 68,685,587	\$66,226,332	\$(2,459,255)	-4%
Payroll and Related Expenses	1,771,632	529,720	2,301,352	1,196,876	707,318	1,904,194	4,205,547	4,554,566	349,019	8%
Outsourced Services	2,394,778	442,791	2,837,569	142,727	601,792	744,520	3,582,088	4,441,381	859,293	19%
Planning and Evaluation	1,116,882	37,125	1,154,007	825		825	1,154,832	1,394,188	239,356	17%
Customer Service Management	348,183	27,293	375,476				375,476	315,300	(60,176)	-19%
Trade Allies Network	179,476	12,215	191,691				191,691	233,181	41,490	18%
Total Program Expenses	67,774,421	7,771,261	75,545,682	1,340,428	1,309,110	2,649,539	78,195,221	77,164,948	(1,030,273)	-1%
Program Support Costs										
Supplies	5,239	1,664	6,903	6,298	2,683	8,981	15,884	18,172	2,288	13%
Postage and Shipping Expenses	1,445	2,402	3,847	2,426	625	3,052	6,899	4,729	(2,170)	-46%
Telephone	1,460	494	1,955	914	752	1,666	3,620	5,776	2,156	37%
Printing and Publications	44,069	1,404	45,473	2,328	3,746	6,074	51,547	74,182	22,635	31%
Occupancy Expenses	107,078	36,243	143,321	67,015	46,322	113,337	256,658	286,142	29,484	10%
Insurance	17,439	5,902	23,341	10,914	7,544	18,458	41,799	42,637	838	2%
Equipment	3,077	56,909	59,986	1,926	1,331	3,257	63,242	78,623	15,381	20%
Travel	17,524	5,319	22,843	15,807	26,510	42,317	65,160	92,800	27,640	30%
Meetings, Trainings & Conferences	15,540	7,004	22,544	32,418	6,108	38,525	61,069	158,965	97,896	62%
Interest Expense and Bank Fees				1,774		1,774	1,774	1,458	(316)	-22%
Depreciation & Amortization	28,760	9,734	38,495	18,000	12,442	30,442	68,936	60,476	(8,460)	-14%
Dues, Licenses and Fees	35,681	7,050	42,731	(6,284)	11,475	5,191	47,923	64,461	16,538	26%
Miscellaneous Expenses	147	11	157	19	13	33	190	0	(190)	
IT Services	820,369	108,220	928,589	184,559	127,038	311,596	1,240,185	1,580,890	340,705	22%
Total Program Support Costs	1,097,828	242,356	1,340,185	338,114	246,589	584,703	1,924,886	2,469,311	544,425	22%
TOTAL EXPENSES	68,872,256	8,013,617	76,885,867	1,678,540	1,555,698	3,234,237	80,120,108	79,634,259	(485,849)	-1%

OPUC Measure vs. 8% 5.1%

ENERGY TRUST OF OREGON
Year to Date by Program/Service Territory
For the Seven Months Ending July 31, 2015

Unaudited

ENERGY EFFICIENCY

	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Oregon Total	NWN WA	ETO Total
REVENUES									
Public Purpose Funding	\$16,827,240	\$12,416,371	\$29,243,611	\$0	\$10,139,415	\$927,925	\$40,310,951	\$0	\$40,310,951
Incremental Funding	25,063,113	12,625,739	37,688,853	2,052,288			39,741,141	678,392	40,419,533
Contributions									
Revenue from Investments									
TOTAL PROGRAM REVENUE	41,890,353	25,042,110	66,932,463	2,052,288	10,139,415	927,925	80,052,092	678,392	80,730,484
EXPENSES									
Program Management (Note 3)	1,567,648	1,054,518	2,622,165	85,651	381,318	55,577	3,144,711	65,046	3,209,757
Program Delivery	13,142,444	9,071,953	22,214,395	449,783	2,573,725	325,585	25,563,490	205,378	25,768,868
Incentives	17,018,935	10,974,593	27,993,529	320,583	3,826,237	346,217	32,486,565	236,021	32,722,586
Program Eval & Planning Svcs.	1,062,740	746,218	1,808,955	20,155	245,335	20,710	2,095,155	23,911	2,119,066
Program Marketing/Outreach	1,356,150	929,885	2,286,035	15,002	462,124	33,945	2,797,107	35,987	2,833,094
Program Quality Assurance	8,596	7,860	16,457	0	6,003	286	22,747	0	22,747
Outsourced Services	290,130	196,488	486,619	10,392	67,078	6,560	570,647	0	570,647
Trade Allies & Cust. Svc. Mgmt.	225,283	169,310	394,594	2,035	106,317	6,819	509,764	17,894	527,658
IT Services	381,834	273,240	655,076	6,817	129,627	10,003	801,522	18,848	820,370
Other Program Expenses - all	135,617	88,921	224,537	4,386	28,328	3,109	260,361	17,102	277,463
TOTAL PROGRAM EXPENSES	35,189,377	23,512,986	58,702,362	914,804	7,826,092	808,811	68,252,069	620,187	68,872,256
ADMINISTRATIVE COSTS									
Management & General (Notes 1&2)	768,472	513,332	1,281,803	20,009	170,502	17,650	1,489,968	13,395	1,503,363
Communications & Customer Svc (Notes 1&2)	712,233	475,763	1,187,996	18,545	158,026	16,360	1,380,925	12,415	1,393,340
Total Administrative Costs	1,480,705	989,095	2,469,799	38,554	328,528	34,010	2,870,893	25,810	2,896,703
TOTAL PROG & ADMIN EXPENSES	36,670,082	24,502,081	61,172,161	953,358	8,154,620	842,821	71,122,966	645,997	71,768,959
TOTAL REVENUE LESS EXPENSES	5,220,271	540,029	5,760,302	1,098,930	1,984,795	85,104	8,929,130	32,395	8,961,525
NET ASSETS - RESERVES									
Cumulative Carryover at 12/31/14	27,816,061	15,090,308	42,906,369	580,920	9,503,289	1,156,900	54,147,478	217,848	54,365,326
Change in net assets this year	5,220,271	540,029	5,760,302	1,098,930	1,984,795	85,104	8,929,130	32,395	8,961,525
Ending Net Assets - Reserves	33,036,332	15,630,337	48,666,671	1,679,850	11,488,084	1,242,004	63,076,608	250,243	63,326,851
Ending Reserve by Category									
Program Reserves (Efficiency and Renewables)	33,036,332	15,630,337	48,666,671	1,679,850	11,488,084	1,242,004	63,076,608	250,243	63,326,851
Operational Contingency Pool									
Emergency Contingency Pool									
TOTAL NET ASSETS CUMULATIVE	33,036,332	15,630,337	48,666,671	1,679,850	11,488,084	1,242,004	63,076,608	250,243	63,326,851

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

Note 2) Admin costs are allocated for mgmt reporting only. GAAP for Not for Profits does not allow allocation of admin costs to program expenses.

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

ENERGY TRUST OF OREGON
Year to Date by Program/Service Territory
For the Seven Months Ending July 31, 2015

Unaudited

	RENEWABLE ENERGY			Other	TOTAL	Approved budget	Change	% Change
	PGE	PacifiCorp	Total		All Programs			
REVENUES								
Public Purpose Funding	\$4,894,062	\$3,496,985	\$8,391,047		\$48,701,998	\$50,517,044	(\$1,815,046)	-4%
Incremental Funding					40,419,533	39,752,695	666,838	2%
Contributions				1,050	1,050		1,050	
Revenue from Investments				349,897	349,897	168,000	181,897	108%
TOTAL PROGRAM REVENUE	4,894,062	3,496,985	8,391,047	350,947	89,472,478	90,437,739	(965,261)	-1%
EXPENSES								
Program Management (Note 3)	361,008	180,379	541,387		3,751,144	4,107,108	355,964	9%
Program Delivery	124,979	82,032	207,011		25,975,879	25,700,926	(274,953)	-1%
Incentives	4,548,881	1,954,558	6,503,439		39,226,025	36,807,623	(2,418,402)	-7%
Program Eval & Planning Svcs.	25,422	12,781	38,204		2,157,270	2,849,477	692,207	24%
Program Marketing/Outreach	78,793	48,083	126,876		2,959,970	3,232,788	272,818	8%
Program Quality Assurance	0	0	0		22,747	50,000	27,253	55%
Outsourced Services	76,375	238,460	314,835		885,482	1,032,006	146,524	14%
Trade Allies & Cust. Svc. Mgmt.	27,015	12,493	39,508		567,166	548,481	(18,685)	-3%
IT Services	72,281	35,939	108,220		928,590	1,183,692	255,102	22%
Other Program Expenses - all	87,905	46,232	134,136		411,599	565,091	153,492	27%
TOTAL PROGRAM EXPENSES	5,402,659	2,610,957	8,013,617	-	76,885,872	76,077,192	(808,680)	-1%
ADMINISTRATIVE COSTS								
Management & General (Notes 1&2)	118,105	57,071	175,177		1,678,540	1,936,672	258,132	13%
Communications & Customer Svc (Notes 1&2)	109,462	52,895	162,357		1,555,698	1,620,394	64,696	4%
Total Administrative Costs	227,567	109,966	337,534		3,234,237	3,557,066	322,829	9%
TOTAL PROG & ADMIN EXPENSES	5,630,226	2,720,923	8,351,150		80,120,108	79,634,258	(485,850)	-1%
TOTAL REVENUE LESS EXPENSES	(736,164)	776,062	39,897	350,947	9,352,370	10,803,481	(1,451,111)	-13%
NET ASSETS - RESERVES								
Cumulative Carryover at 12/31/14	13,736,997	10,937,994	24,674,991	8,186,804	87,227,121	88,912,387	(1,685,266)	-2%
Change in net assets this year	(736,164)	776,062	39,897	350,947	9,352,369	10,803,481	(1,451,111)	-13%
Ending Net Assets - Reserves	13,000,833	11,714,056	24,714,888	8,537,751	96,579,492	99,715,868	(3,136,377)	-3%
Ending Reserve by Category								
Program Reserves (Efficiency and Renewables)	13,000,833	11,714,056	24,714,888		91,579,492			
Operational Contingency Pool				3,537,751				
Emergency Contingency Pool				5,000,000	5,000,000			
TOTAL NET ASSETS CUMULATIVE	13,000,833	11,714,056	24,714,888	8,537,751	96,579,492	99,715,868	(3,136,377)	-3%

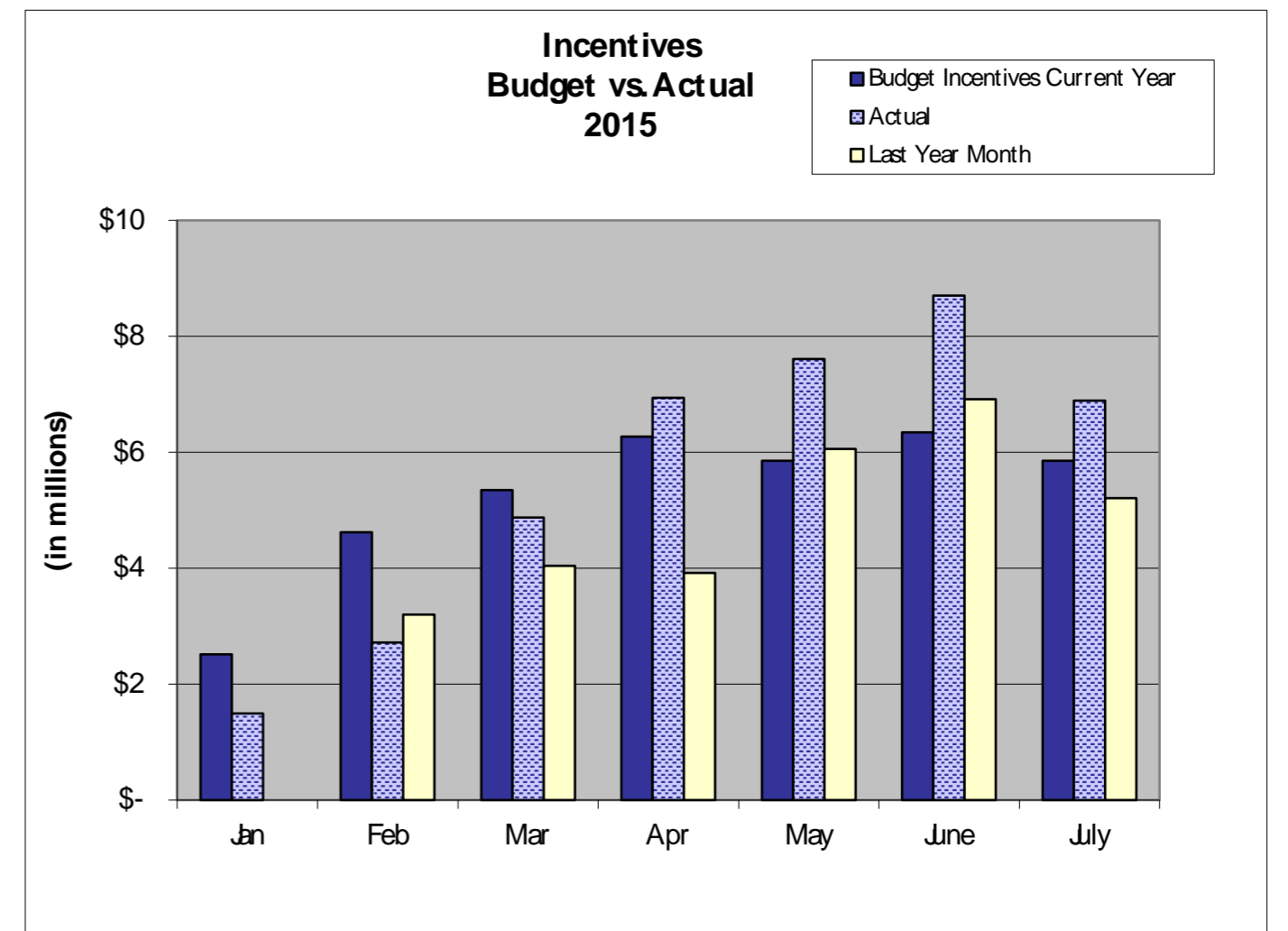
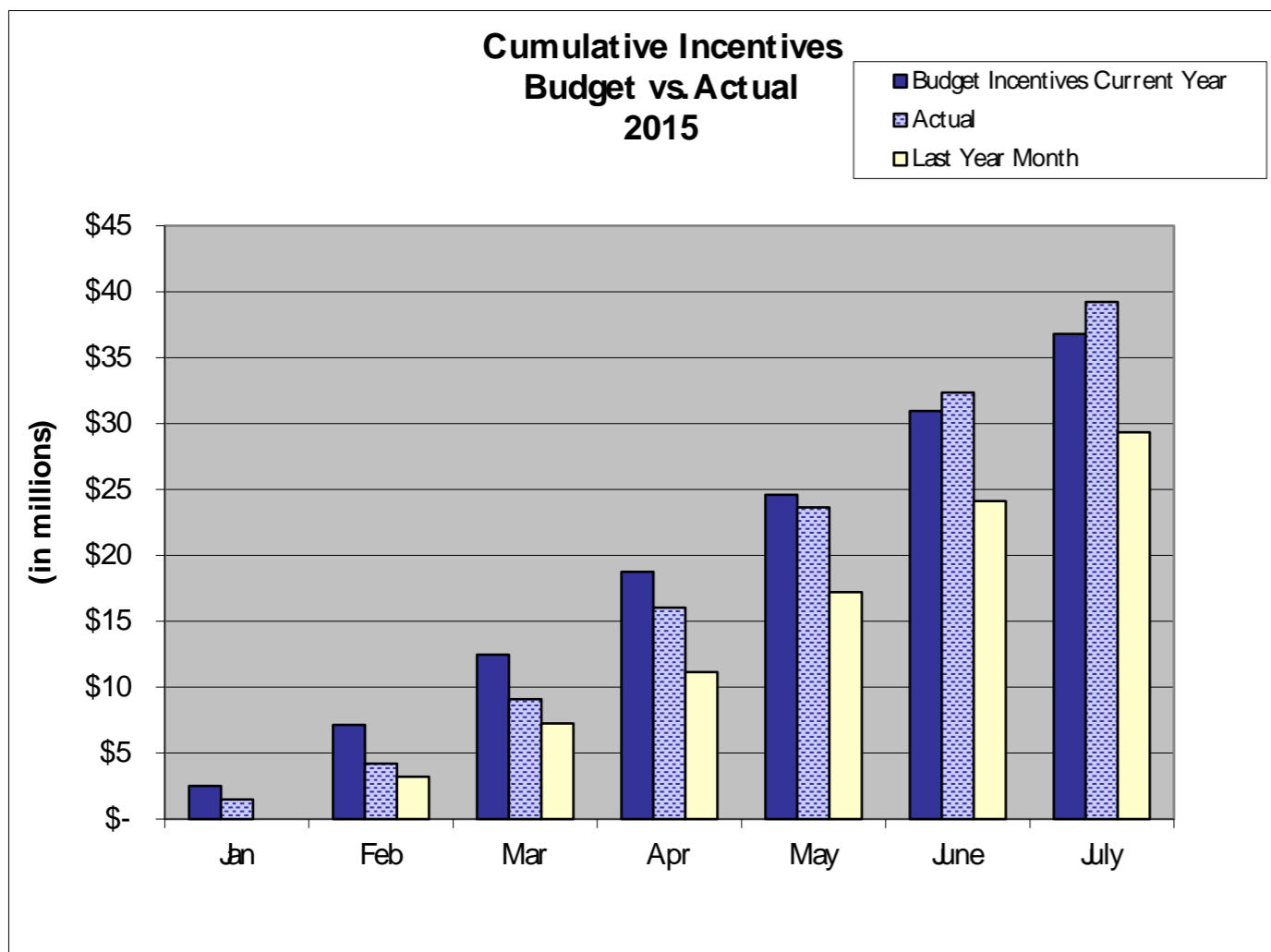
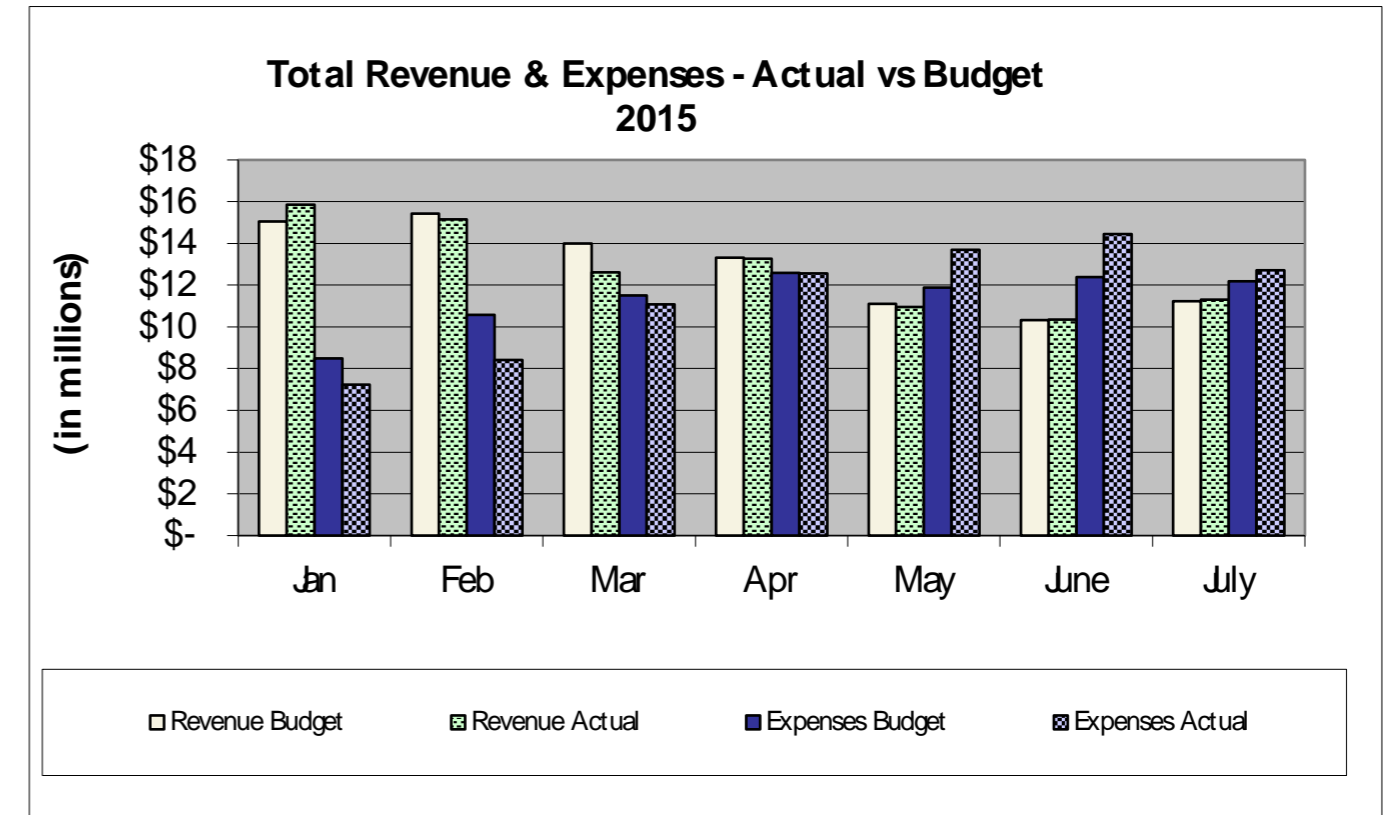
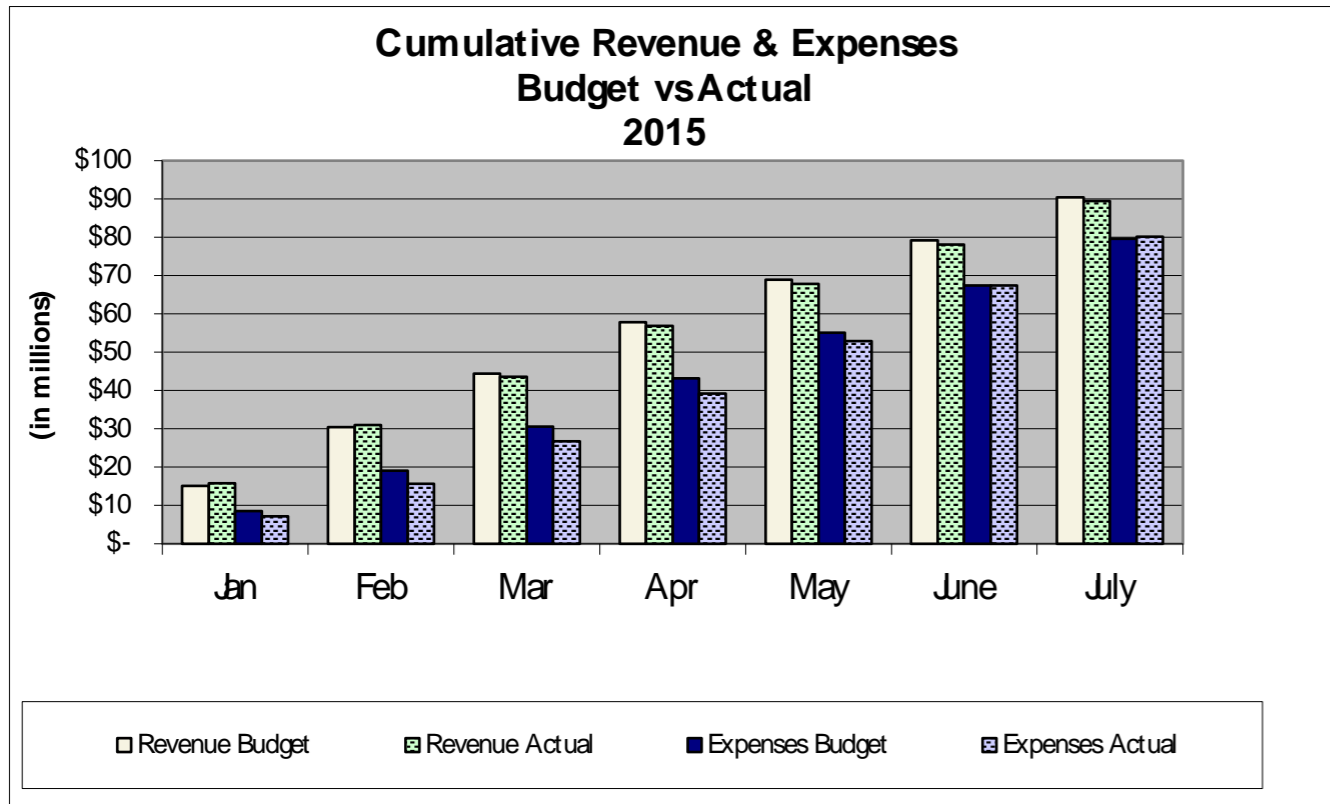
Energy Trust of Oregon
Program Expense by Service Territory
For the Seven Months Ending July 31, 2015
(Unaudited)

	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Subtotal Gas	Oregon Total	NWN WA	ETO Total	YTD Budget	Variance	% Var
Energy Efficiency													
Commercial													
Existing Buildings	\$ 11,519,409	\$ 8,054,775	\$ 19,574,185	\$ 426,554	\$ 1,572,959	\$ 243,848	\$ 2,243,360	\$ 21,817,545	\$ 195,474	\$ 22,013,019	\$ 20,998,839	\$ (1,014,180)	-5%
New Buildings	3,968,000	2,300,123	6,268,122	26,009	451,690	91,900	569,600	6,837,722		6,837,722	6,015,494	(822,228)	-14%
NEEA	732,081	522,756	1,254,837		65,120	6,642	71,763	1,326,600	5,495	1,332,095	1,624,799	292,704	18%
Total Commercial	16,219,491	10,877,654	27,097,144	452,563	2,089,769	342,391	2,884,723	29,981,867	200,969	30,182,836	28,639,132	(1,543,704)	-5%
Industrial													
Production Efficiency	8,177,944	5,235,988	13,413,932	500,795	335,136	121,887	957,819	14,371,751		14,371,751	13,144,442	(1,227,309)	-9%
NEEA	145,675	104,746	250,421					250,421		250,421	89,732	(160,689)	-179%
Total Industrial	8,323,619	5,340,734	13,664,353	500,795	335,136	121,887	957,819	14,622,172	-	14,622,172	13,234,174	(1,387,998)	-10%
Residential													
Existing Homes	3,953,838	4,029,010	7,982,848	-	3,088,966	131,635	3,220,602	11,203,450	231,410	11,434,860	12,447,222	1,012,362	8%
New Homes/Products	6,869,809	3,328,525	10,198,334	-	2,512,279	233,473	2,745,751	12,944,085	201,232	13,145,317	15,518,143	2,372,826	15%
NEEA	1,303,326	926,160	2,229,486		128,467	13,433	141,900	2,371,386	12,388	2,383,774	2,298,962	(84,812)	-4%
Total Residential	12,126,973	8,283,695	20,410,668	-	5,729,712	378,541	6,108,254	26,518,921	445,030	26,963,951	30,264,327	3,300,376	11%
Energy Efficiency Costs	36,670,082	24,502,081	61,172,161	953,358	8,154,620	842,821	9,950,795	71,122,966	645,997	71,768,959	72,137,633	368,674	1%
Renewables													
Solar Electric (Photovoltaic)	4,132,746	1,903,781	6,036,527					6,036,527		6,036,527	4,871,340	(1,165,187)	-24%
Other Renewable	1,497,483	817,140	2,314,623					2,314,623		2,314,623	2,625,287	310,664	12%
Renewables Costs	5,630,226	2,720,923	8,351,150	-	-	-	-	8,351,150	-	8,351,150	7,496,627	(854,523)	-11%
Cost Grand Total	42,300,311	27,223,004	69,523,315	953,358	8,154,620	842,821	9,950,795	79,474,110	645,997	80,120,108	79,634,260	(485,849)	-1%

**Energy Trust of Oregon
Administrative Expenses
For the 3rd Quarter and Seven Months Ending July 31, 2015
(Unaudited)**

EXPENSES	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	ACTUAL	QUARTER		YTD			ACTUAL	QUARTER		YTD		
		BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE		BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE
Outsourced Services	\$9,981	\$80,922	\$70,941	\$127,714	\$247,818	\$120,104	\$131,186	\$336,775	\$205,589	\$601,792	\$576,583	(\$25,209)
Legal Services	248	6,750	6,503	15,013	15,750	737						
Salaries and Related Expenses	183,472	530,459	346,987	1,196,876	1,218,658	21,782	101,327	332,886	231,559	707,318	776,734	69,416
Supplies	1,779	1,075	(704)	3,220	2,508	(712)	69	250	181	556	583	27
Telephone							80		(80)	120		(120)
Postage and Shipping Expenses	256		(256)	1,522		(1,522)						
Printing and Publications	519	88	(431)	2,065	204	(1,861)	2,160	1,250	(910)	3,564	2,917	(647)
Travel	1,495	12,387	10,892	15,807	28,904	13,097	11,185	6,250	(4,935)	26,510	14,583	(11,926)
Conference, Training & Mtngs	5,925	36,672	30,748	32,196	74,169	41,973	394	3,500	3,106	5,954	8,167	2,212
Interest Expense and Bank Fees		625	625	1,774	1,458	(316)						
Dues, Licenses and Fees	3,875	1,419	(2,456)	(6,284)	3,540	9,824	1,504	2,125	621	11,475	4,958	(6,517)
Shared Allocation (Note 1)	14,301	46,031	31,730	103,255	107,406	4,151	10,070	31,685	21,615	71,371	73,931	2,560
IT Service Allocation (Note 2)	29,037	114,276	85,240	184,559	235,261	50,702	19,987	78,660	58,673	127,038	161,937	34,900
Planning & Eval	131	423	292	825	996	171						
TOTAL EXPENSES	251,019	831,128	580,109	1,678,540	1,936,672	258,131	277,961	793,380	515,420	1,555,698	1,620,393	64,696

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



Notes on July 2015 Financial Statements

August 20, 2015

Revenue

Year-to-Date revenue remains about \$1 million below budgeted amounts.

	Jul-15	YTD Actual	YTD Budget	YTD Var	YTD %	PY
PGE		46,784,416	47,031,777	(247,361)	-1%	52,849,071
PAC		28,539,095	28,663,764	(124,669)	0%	32,150,289
NWN		12,870,095	13,368,562	(498,467)	-4%	16,694,526
CNG		927,925	1,205,637	(277,711)	-23%	2,060,238
Investment Income		349,897	168,000	181,897	108%	120,875
Total		89,471,428	90,437,739	(966,311)	-1%	103,875,001

Reserves

Once again, program reserves decreased in July due to strong incentive spending. Reserves are currently 16% lower than where we were at this time last year, and we are \$3 million below budget for the year.

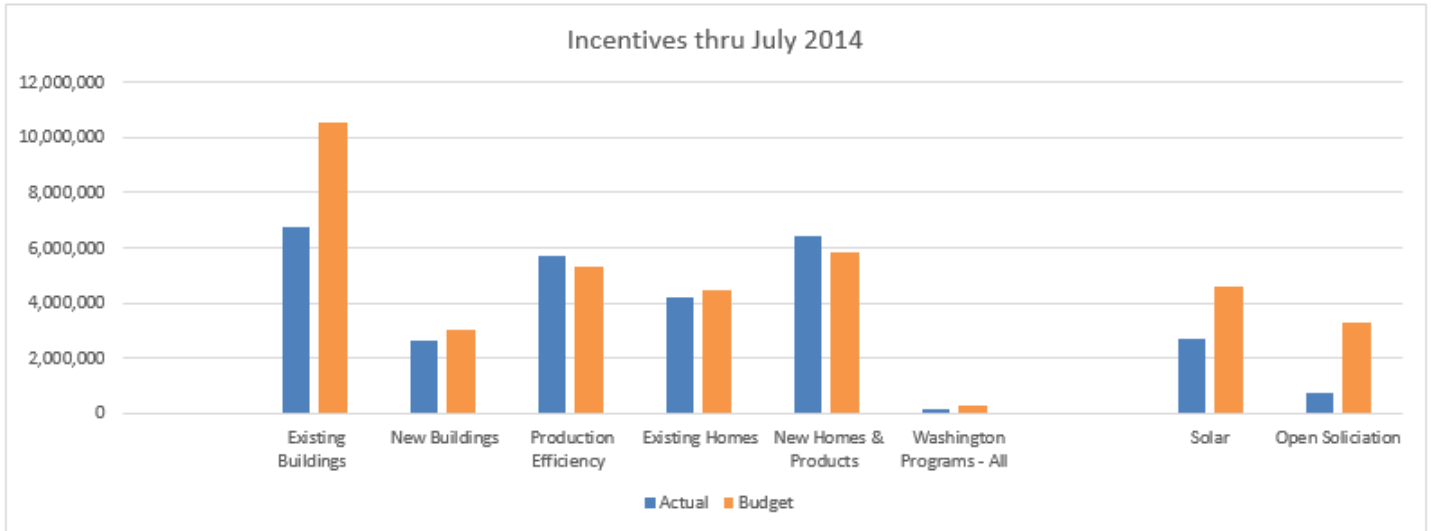
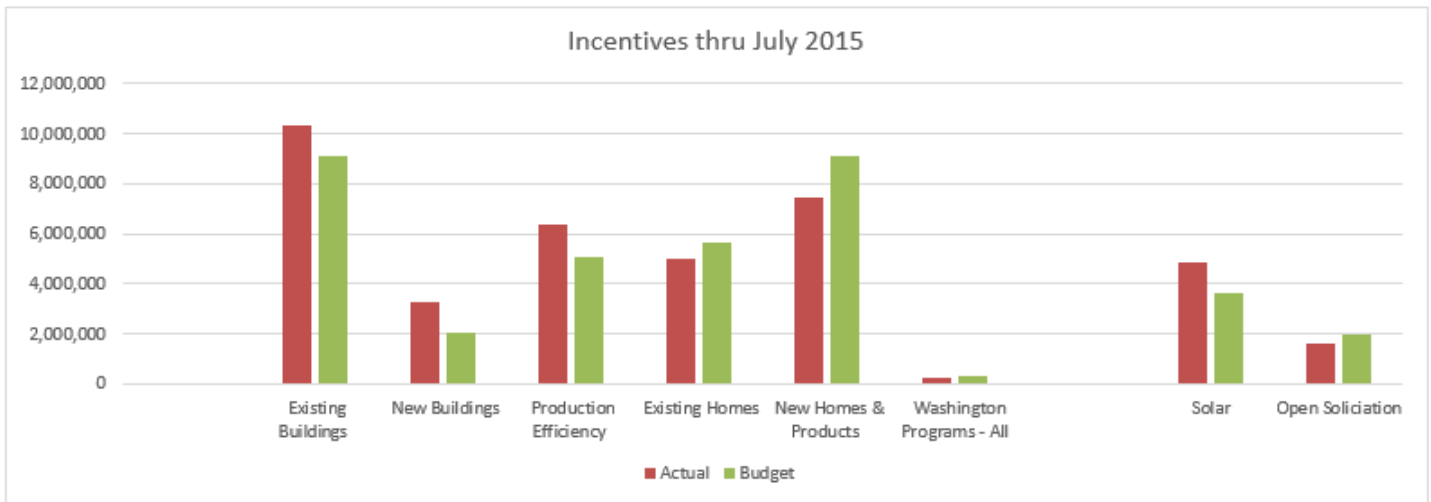
Reserves

	Actual 07/31/15 Amount	Actual 12/31/14 Amount	YTD % Change	Actual 07/31/14 Amount	12 month % Change
PGE	33,036,332	27,816,061	19%	39,767,710	-17%
PacifiCorp	15,630,337	15,090,308	4%	21,060,362	-26%
NW Natural	11,488,084	9,503,289	21%	14,192,144	-19%
Cascade	1,242,004	1,156,900	7%	1,741,293	-29%
NWN Industrial	1,679,850	580,920	189%	1,472,676	14%
NWN Washington	250,243	217,848	15%	466,163	-46%
PGE Renewables	13,000,833	13,736,997	-5%	14,211,445	-9%
PAC Renewables	11,714,056	10,937,994	7%	13,445,004	-13%
Program Reserves	88,041,739	79,040,317	11%	106,356,797	-17%
Contingency Reserve	5,000,000	5,000,000	0%	5,000,000	0%
Contingency Available	3,537,751	3,186,804	11%	3,127,985	13%
Total	96,579,492	87,227,121	11%	114,484,783	-16%

Incentive Expenses

Total expenses for July were \$0.5 million greater than budget, largely due to incentive spending. Spending for the year is also \$0.5 million above budget, and is now \$12.8 million ahead of 2014 July YTD spending.

Incentives for the month came in 18% over budget (\$1 million). Production Efficiency had a particularly strong month and is now \$1.3 million above budget for the year (up from \$660K as of June). A comparison with last year's incentive status is below. It shows the dramatic increase in incentive spending for all programs.

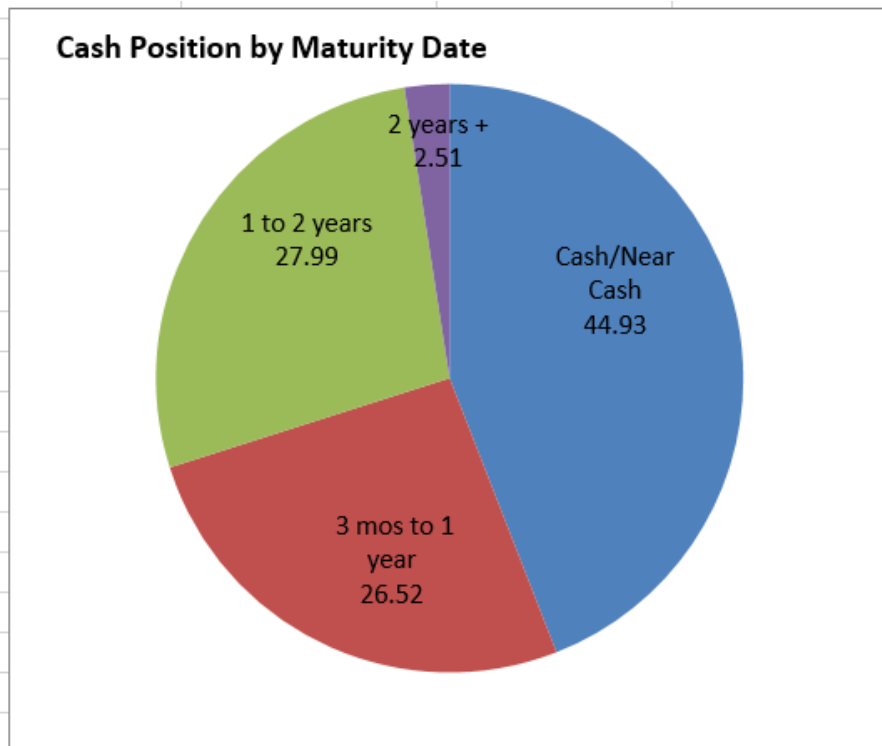
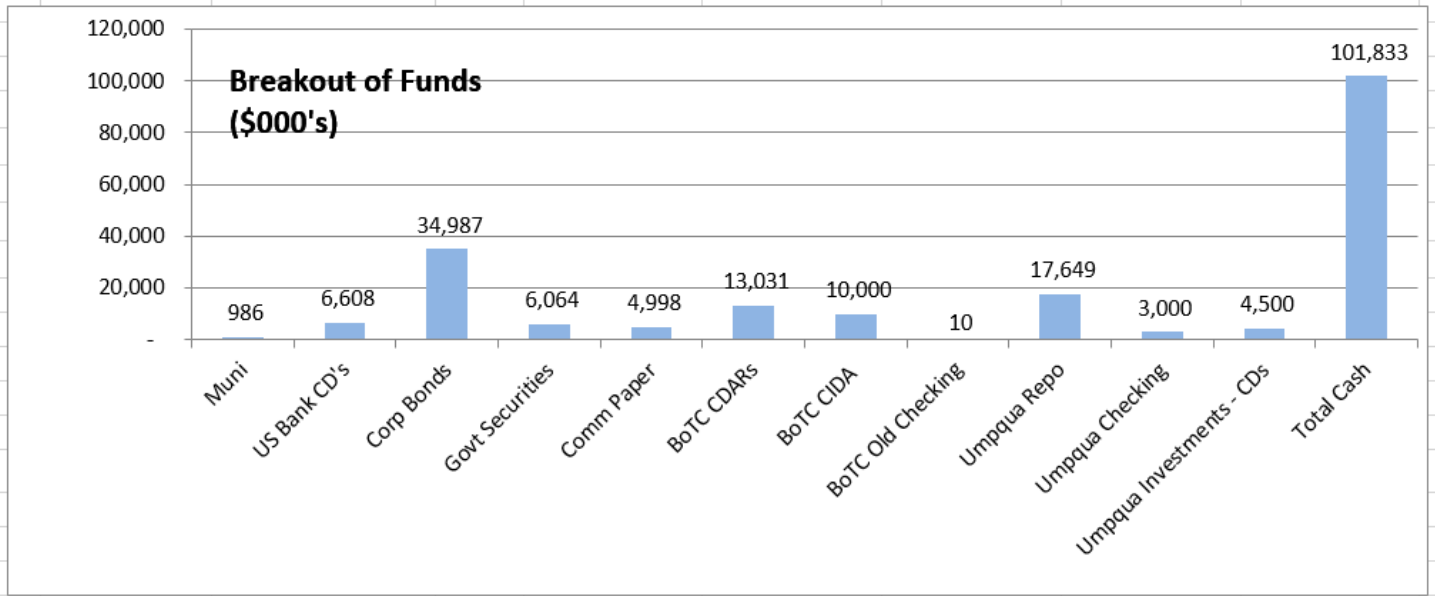


Incentives thru July 2015	Total Incentives			
	<u>Actual</u>	<u>Budget</u>	<u>Variance</u>	<u>Var %</u>
Existing Buildings	10,344,720	9,083,760	(1,260,960)	-14%
New Buildings	3,266,479	2,057,236	(1,209,242)	-59%
Production Efficiency	6,383,102	5,037,631	(1,345,471)	-27%
Existing Homes	5,021,152	5,631,031	609,880	11%
New Homes & Products	7,471,112	9,111,551	1,640,439	18%
Washington Programs - All	236,020	313,752	77,731	25%
Solar	4,864,241	3,639,883	(1,224,358)	-34%
Open Solicitation	1,639,198	1,932,780	293,582	15%
Total Incentives	39,226,023	36,807,624	(2,418,399)	-7%
Energy Efficiency Only	32,722,584	31,234,961	(1,487,623)	-5%
Act Incent to Annual Budget	35%	94,486,648		

July 2015 vs. July 2014	Total Incentives			
	<u>Current Year</u>	<u>Prior Year</u>	<u>Variance</u>	<u>Var %</u>
Existing Buildings	10,344,720	6,726,162	(3,618,559)	-54%
New Buildings	3,266,479	2,629,804	(636,674)	-24%
Production Efficiency	6,383,102	5,678,456	(704,646)	-12%
Existing Homes	5,021,152	4,228,200	(792,952)	-19%
New Homes & Products	7,471,112	6,420,912	(1,050,200)	-16%
Washington Programs - All	236,020	179,473	(56,547)	-32%
Solar	4,864,241	2,703,387	(2,160,854)	-80%
Open Solicitation	1,639,198	765,593	(873,605)	-114%
Total Incentives	39,226,023	29,331,987	(9,894,040)	-34%
Energy Efficiency Only	32,722,584	25,863,006	(6,859,578)	-27%

Investment Status

The graphs below show the type of investments we hold and the locations where our funds are held at the end of June (including cash). The second graph shows our overall liquidity. The average liquidity for all assets held at 7/31/15 was 220 days.



For contracts with costs
through: 8/1/2015

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
Administration							
Administration Total:			7,643,024	4,227,185	3,415,839		
Communications							
Communications Total:			3,770,821	2,678,769	1,092,053		
Energy Efficiency							
Northwest Energy Efficiency Alliance	Regional EE Initiative Agmt	Portland	33,662,505	4,765,177	28,897,328	1/1/2015	7/1/2020
ICF Resources, LLC	2015 BE PMC	Fairfax	9,361,147	5,655,193	3,705,954	1/1/2015	12/31/2015
CLEAResult Consulting Inc	2015 HES PMC	Austin	6,831,251	3,786,889	3,044,362	1/1/2015	12/31/2015
Northwest Energy Efficiency Alliance	Regional Gas EE Initiative	Portland	6,200,354	274,263	5,926,091	1/1/2015	7/1/2020
CLEAResult Consulting Inc	2015 NBE PMC	Austin	4,986,181	2,390,507	2,595,674	1/1/2015	12/31/2015
Lockheed Martin Services, Inc.	2015 MF PMC	Cherry Hill	4,158,899	2,297,870	1,861,029	1/1/2015	12/31/2015
Ecova Inc	2015 Products PMC	Spokane	3,601,890	2,063,304	1,538,586	1/1/2015	1/31/2016
CLEAResult Consulting Inc	2015 NH PMC	Austin	2,772,252	1,502,632	1,269,620	1/1/2015	12/31/2015
Energy 350 Inc	PDC - PE 2015	Portland	2,388,150	1,311,985	1,076,165	1/1/2015	12/31/2015
Portland General Electric	PDC - PE 2015	Portland	2,211,000	1,301,214	909,786	1/1/2015	12/31/2015
Oregon State University	CHP Project - OSU	Corvallis	2,024,263	1,982,682	41,581	12/20/2010	1/31/2016
Northwest Power & Conservation Council	RTF Funding Agreement		1,825,000	321,766	1,503,234	2/25/2015	12/31/2019
Cascade Energy, Inc.	PDC - PE 2015 Small Industrial	Walla Walla	1,497,000	900,984	596,016	1/1/2015	12/31/2015
NEXANT, INC.	PDC - PE 2015	San Francisco	1,344,550	925,818	418,732	1/1/2015	12/31/2015
Evergreen Consulting Group, LLC	PE Lighting PDC 2015	Tigard	1,296,000	683,865	612,135	1/1/2015	12/31/2015
RHT Energy Inc.	PDC - PE 2015	Medford	1,126,440	598,375	528,065	1/1/2015	12/31/2015
HST&V, LLC	PDC - SEM 2015	Portland	1,041,740	530,568	511,172	1/1/2015	12/31/2015
CLEAResult Consulting Inc	PDC - SEM 2015	Austin	695,500	317,792	377,708	1/1/2015	12/31/2015
EnergySavvy Inc.	EnergySavvy Online Audit Tool	Seattle	587,500	510,224	77,276	1/1/2012	12/31/2015
Clean Energy Works, Inc.	EE Incentive & Services Agmt	Portland	497,340	313,220	184,120	7/1/2014	12/31/2015
Cascade Energy, Inc.	SEM Curriculum	Walla Walla	404,080	404,080	0	5/1/2014	4/30/2016
OPOWER, Inc.	OPower Personal Energy Reports	Arlington	399,447	397,287	2,160	8/1/2013	7/31/2015
Craft3	SWR Loan Origination/Loss Fund	Portland	305,000	8,850	296,150	6/1/2014	6/30/2015
Energy Market Innovations, Inc.	Lighting Controls Savings Est	Seattle	305,000	208,664	96,336	10/1/2014	9/30/2015
EnerNoc, Inc.	Commercial SEM curriculum	Boston	300,915	226,557	74,358	6/27/2014	5/30/2016
Craft3	Loan Agreement	Portland	300,000	100,000	200,000	6/1/2014	6/20/2025
CLEAResult Consulting Inc	2015 HES WA PMC	Austin	277,600	148,443	129,157	1/1/2015	12/31/2015
Home Performance Contractors Guild of Oregon	Existing Homes Program Support	Portland	248,750	212,391	36,359	1/1/2012	12/31/2015

For contracts with costs
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ICF Resources, LLC	2015 BE NWN WA PMC	Fairfax	196,984	102,876	94,108	1/1/2015	12/31/2015
The Cadmus Group Inc.	PE SEM Impact Evaluation	Watertown	177,000	26,354	150,646	5/1/2015	12/31/2015
Northwest Energy Efficiency Alliance	Product Funding Agreement	Portland	171,851	171,851	0	6/5/2014	12/31/2015
Navigant Consulting Inc	CORE Improvement Pilot Eval	Boulder	140,000	140,000	0	9/1/2012	12/31/2015
ICF Resources, LLC	2015 BE DSM PMC	Fairfax	119,627	39,352	80,275	1/1/2015	12/31/2015
Abt SRBI Inc.	Fast Feedback Surveys	New York	118,000	87,988	30,012	1/31/2014	2/29/2016
ICF Resources, LLC	OSU CHP Performance Monitoring	Fairfax	100,000	54,458	45,543	7/1/2013	6/30/2016
1000 Broadway Building L.P.	Pay-for-Performance Pilot	Portland	88,125	0	88,125	10/17/2014	11/1/2018
Research Into Action, Inc.	SWR OnBill Repmt Pilot Eval	Portland	73,000	44,342	28,658	11/1/2014	6/30/2016
KEMA Incorporated	Impact Evaluation NBE '11-'14	Oakland	70,000	31,608	38,392	3/2/2015	11/30/2015
Pivotal Energy Solutions LLC	License Agreement	Gilbert	64,500	39,353	25,147	3/1/2014	12/31/2015
SBW Consulting, Inc.	Path to Net Zero Impact Eval	Bellevue	60,000	19,666	40,334	3/19/2015	12/31/2015
Earth Advantage, Inc.	New Homes Code Change Analysis	Portland	54,110	18,123	35,988	1/1/2015	11/30/2015
Balanced Energy Solutions LLC	New Homes QA Inspections	Portland	54,000	4,998	49,002	4/27/2015	12/31/2015
Evergreen Economics	New Homes Process Evaluation	Portland	50,000	6,775	43,225	6/1/2015	12/31/2015
MetaResource Group	Intel DX1 Mod 1&2 Megaproject	Portland	45,000	1,500	43,500	4/1/2015	5/1/2017
NEXANT, INC.	Products Process Evaluation'15	San Francisco	43,000	22,243	20,757	4/15/2015	8/31/2015
Evergreen Economics	Gas Hearth Mrkt Transformation	Portland	42,840	37,840	5,000	1/1/2015	11/30/2015
PWP, Inc.	SEM Intro Pilot Evaluation	Gaithersburg	40,000	21,490	18,510	10/28/2013	10/2/2015
KEMA Incorporated	Billing Analysis Review	Oakland	35,000	0	35,000	3/15/2015	12/31/2016
Pivotal Energy Solutions LLC	EPS New Home dbase construct	Gilbert	35,000	34,000	1,000	7/1/2014	6/30/2016
Apex Analytics LLC	Gas Thermostat	Boulder	30,000	24,310	5,690	10/20/2014	12/31/2015
Research Into Action, Inc.	MPower Pilot Evaluation	Portland	30,000	13,666	16,335	2/1/2015	4/1/2016
Research Into Action, Inc.	LED Street Lighting Assessment	Portland	30,000	15,260	14,740	5/1/2015	10/31/2015
WegoWise Inc	benchmarking license 2015	Boston	30,000	10,312	19,688	6/15/2014	12/31/2016
Energy Center of Wisconsin	Billing Analysis Review	Madison	25,000	0	25,000	3/15/2015	12/31/2016
Evergreen Economics	Air Sealing Pilot Evaluation	Portland	25,000	1,155	23,845	10/15/2014	12/31/2015
Northwest Food Processors Association	NW Industrial EE Summit 2015	Portland	25,000	17,965	7,035	11/30/2014	12/31/2015
Portland General Electric	2015 Workshop Sponsorship	Portland	25,000	25,000	0	1/1/2015	12/31/2015
CLEAResult Consulting Inc	Professional Services/Trans	Austin	22,588	19,539	3,049	10/15/2014	10/15/2016
MetaResource Group	Pay-for-Performance Pilot Eval	Portland	20,000	0	20,000	7/1/2015	5/30/2016
MetaResource Group	Pay-for-Performance Pilot Eval	Portland	20,000	2,250	17,750	8/5/2014	12/31/2015
Consortium for Energy Efficiency	Membership Dues - 2015		18,736	18,736	0	1/1/2015	12/31/2015
Energy 350 Inc	Professional Services	Portland	14,920	14,920	0	12/10/2014	12/10/2016

For contracts with costs
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MetaResource Group	Mosier Well Energy Eff Study	Portland	13,500	0	13,500	7/1/2015	12/15/2015
Cascade Energy, Inc.	C/E & C/A Calculator Revisions	Walla Walla	12,100	0	12,100	5/21/2015	10/31/2015
American Council for and Energy Efficient Economy	Low-Income HH Sponsorship		10,000	10,000	0	7/22/2015	12/31/2015
American Council for and Energy Efficient Economy	Intelligent Effncy Sponsorship		10,000	10,000	0	7/22/2015	12/31/2015
American Council for and Energy Efficient Economy	EE Measures Sponsorship		10,000	10,000	0	7/22/2015	12/31/2015
Research Into Action, Inc.	Professional Services	Portland	9,590	9,570	20	9/1/2014	8/31/2016
Bridgetown Printing Company	January 2015 Bill Insert	Portland	9,517	9,517	0	1/1/2015	12/31/2015
City of Portland Bureau of Planning & Sustainability	Sponsorships - 2015	Portland	8,000	8,000	0	1/1/2015	12/31/2015
Northwest Energy Efficiency Council	BOC 2015 Sponsorship	Seattle	7,900	0	7,900	1/1/2015	12/31/2015
Northwest Environmental Business Council	Future Energy Conference 2015	Portland	7,650	7,650	0	3/25/2015	12/31/2015
LightTracker, Inc.	CREED Data	Boulder	7,300	0	7,300	8/5/2015	8/4/2016
Apose Pty Ltd	Aspose.NET Words Software Lice	Lane Cove	5,045	5,040	5	12/3/2014	12/3/2015
Social Enterprises Inc.	GoGreen Sponsorship - 2015	Portland	5,000	5,000	0	5/12/2015	12/31/2015
Sustainable Northwest	2015 Sponsorship	Portland	5,000	0	5,000	9/1/2015	9/1/2016
Energy Efficiency Total:			92,864,636	35,283,304	57,581,333		

Joint Programs

Portland State University	Technology Forecasting		120,132	99,493	20,639	11/7/2011	12/31/2015
E Source Companies LLC	E Source Service Agreement	Boulder	74,900	74,900	0	2/1/2014	1/31/2016
The Cadmus Group Inc.	Evaluation Consultant	Watertown	39,045	38,960	85	6/20/2013	2/28/2016
CoStar Realty Information Inc	Property Data	Baltimore	33,620	25,567	8,053	6/1/2011	5/31/2016
Research Into Action, Inc.	EH Attic Air Sealing Pilot Eva	Portland	30,000	30,000	0	10/8/2014	9/30/2016
Navigant Consulting Inc	P&E Consultant Services	Boulder	22,530	22,530	0	1/15/2014	12/30/2015
American Council for and Energy Efficient Economy	ACEEE Sponsorship - 2015		12,500	12,500	0	1/1/2015	12/31/2015
Joint Programs Total:			332,727	303,950	28,777		

Renewable Energy

Clean Water Services	Project Funding Agreement		3,000,000	1,000,000	2,000,000	11/25/2014	11/25/2039
JC-Biomethane LLC	Biogas Plant Project Funding	Eugene	2,000,000	1,000,000	1,000,000	10/18/2012	10/18/2032
Steel Bridge Solar, LLC	Project Funding Agreement	Seattle	2,000,000	0	2,000,000	3/27/2015	12/15/2040
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	1,550,000	1,550,000	0	9/11/2012	9/11/2032
Farm Power Misty Meadows LLC	Misty Meadows Biogas Facility	Mount Vernon	1,000,000	750,000	250,000	10/25/2012	10/25/2027
Three Sisters Irrigation District	TSID Hydro	Sisters	1,000,000	700,000	300,000	4/25/2012	9/30/2032
Farmers Irrigation District	FID - Plant 2 Hydro	Hood River	900,000	0	900,000	4/1/2014	4/1/2034
Tioga Solar VI, LLC	Photovoltaic Project Agreement	San Mateo	570,760	570,760	0	2/1/2009	2/1/2030
Old Mill Solar, LLC	Project Funding Agmt Bly, OR	Lake Oswego	490,000	0	490,000	5/29/2015	5/28/2030

For contracts with costs
through: 8/1/2015

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City of Medford	750kW Combined Heat & Power	Medford	450,000	450,000	0	10/20/2011	10/20/2031
City of Pendleton	Pendleton Microturbines	Pendleton	450,000	150,000	300,000	4/20/2012	4/20/2032
RES - Ag FGO LLC	Biogas Manure Digester Project	Washington	441,660	441,660	0	10/27/2010	10/27/2025
RES - Ag FGO LLC	Biogas Manure Digester - FGO	Washington	441,660	217,830	223,830	10/27/2010	10/27/2025
SunE Solar XVI Lessor, LLC	BVT Sexton Mtn PV	Bethesda	355,412	0	355,412	5/15/2014	12/31/2034
City of Gresham	City of Gresham Cogen 2		330,000	165,000	165,000	4/9/2014	7/9/2034
Farmers Conservation Alliance	Irrigation Collaboration Initi	Hood River	312,876	188,847	124,029	1/2/2015	12/31/2016
Clean Power Research, LLC	PowerClerk License	Napa	231,253	198,983	32,270	7/1/2014	6/30/2016
K2A Properties, LLC	Doerfler Wind Farm Project	Aumsville	230,000	230,000	0	5/20/2010	5/20/2030
Confederated Tribes of the Umatilla Indian Reservation	Small Wind Project Funding	Pendleton	170,992	170,992	0	7/25/2013	12/31/2028
Henley KBG, LLC	Henley Proj Dev Assistance	Reno	150,000	43,683	106,318	4/10/2014	12/31/2015
City of Astoria	Bear Creek Funding Agreement	Astoria	143,000	143,000	0	3/24/2014	3/24/2034
Klamath Basin Geopower Inc	Poe Valley Proj Dev Assistance	Reno	112,874	63,000	49,874	4/10/2014	12/31/2015
Gary Higbee DBA WindStream Solar	Solar Verifier Services	Eugene	100,000	46,651	53,349	8/1/2014	7/31/2016
Wallowa Resources Community Solutions, Inc.	Upfront Hydroelectric Project		100,000	26,433	73,568	10/1/2011	10/1/2015
Mapdwell LLC	Mapdwell Account	Boston	63,195	49,475	13,720	3/17/2014	11/30/2015
Solar Oregon	2015 Outreach Agreement	Portland	43,800	18,500	25,300	1/1/2015	2/29/2016
State of Oregon Dept of Geology & Mineral Industries	Lidar Data	Portland	40,000	0	40,000	11/7/2014	12/1/2015
Clean Energy States Alliance	CESA Membership		39,500	39,500	0	7/1/2015	6/30/2016
University of Oregon	UO SRML Contribution - 2015	Eugene	24,999	24,999	0	2/11/2015	3/8/2016
Robert Migliori	42kW wind energy system	Newberg	24,125	17,037	7,088	4/11/2007	1/31/2024
Solar Oregon	Education & Outreach Services	Portland	24,000	24,000	0	1/1/2014	12/31/2015
Solar Oregon	Website Upgrade Grant	Portland	20,000	8,000	12,000	12/8/2014	12/31/2015
Oregon Clean Power Cooperative	Grant Agreement	Corvallis	17,000	10,000	7,000	6/15/2015	6/30/2016
Warren Griffin	Griffin Wind Project	Salem	13,150	9,255	3,895	10/1/2005	10/1/2020
Future Resource Strategies, LLC	Brewery Biopower Anaerobic Dig	Salem	8,000	0	8,000	8/11/2015	10/31/2015
OSEIA-Oregon Solar Energy Industries Assoc	OSEIA 2015 Conf Sponsorship		7,500	7,500	0	1/1/2015	12/31/2015
Clean Energy States Alliance	CESA ITAC Sponsorship		5,000	5,000	0	1/1/2015	12/31/2015
Renewable Energy Total:			16,860,756	8,320,103	8,540,653		
Grand Total:			121,471,965	50,813,310	70,658,655		

Notes on August 2015 Financial Statements

September 18, 2015

Revenue

Year-to-Date revenue is very close to budgeted amounts.

Aug-15	<u>YTD Actual</u>	<u>YTD Budget</u>	<u>YTD Var</u>	<u>YTD %</u>	<u>PY</u>
PGE	53,872,804	53,049,761	823,043	1.6%	59,587,121
PAC	32,826,479	32,690,773	135,706	0.4%	36,531,062
NWN	13,296,817	13,842,976	(546,159)	-3.9%	17,322,593
CNG	964,226	1,263,048	(298,821)	-23.7%	2,114,998
Investment Income	370,620	192,000	178,620	93.0%	145,743
Total	101,330,947	101,038,558	292,388	0.3%	115,701,518

Reserves

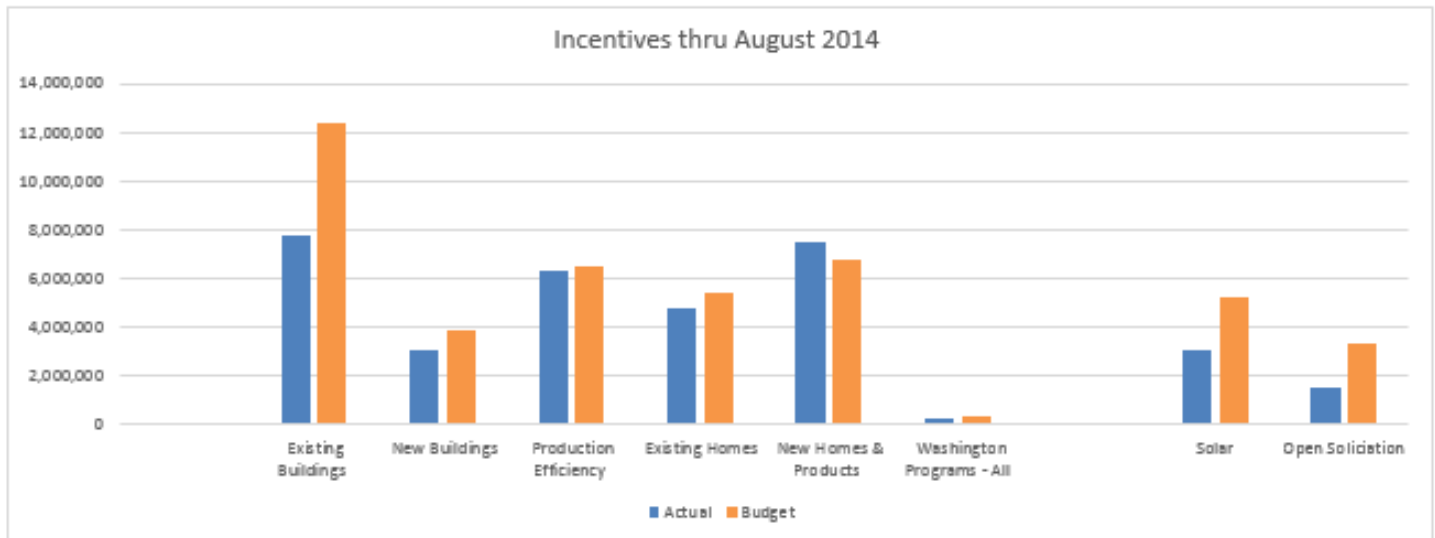
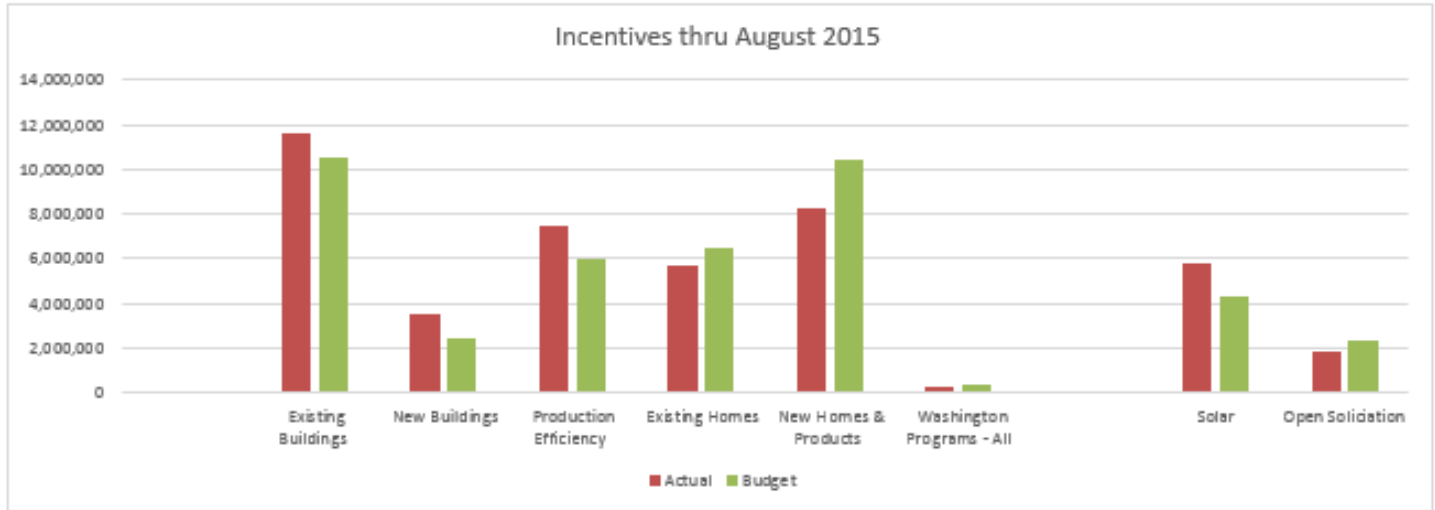
Program reserves rose slightly in August but remain 16% lower than where we were at this time last year.

<u>Reserves</u>	<u>Actual 08/31/15</u> <u>Amount</u>	<u>Actual 12/31/14</u> <u>Amount</u>	<u>YTD</u> <u>% Change</u>	<u>Actual 08/31/14</u> <u>Amount</u>	<u>12 month</u> <u>% Change</u>
PGE	34,167,562	27,816,061	23%	41,121,787	-17%
PacifiCorp	16,465,059	15,090,308	9%	22,272,278	-26%
NW Natural	10,939,402	9,503,289	15%	13,513,855	-19%
Cascade	1,090,081	1,156,900	-6%	1,664,841	-35%
NWN Industrial	1,571,001	580,920	170%	1,296,342	21%
NWN Washington	137,577	217,848	-37%	382,897	-64%
PGE Renewables	12,862,296	13,736,997	-6%	14,680,867	-12%
PAC Renewables	11,737,201	10,937,994	7%	12,806,538	-8%
Program Reserves	88,970,179	79,040,317	13%	107,739,405	-17%
Contingency Reserve	5,000,000	5,000,000	0%	5,000,000	0%
Contingency Available	3,558,474	3,186,804	12%	3,152,672	13%
Total	97,528,654	87,227,121	12%	115,892,078	-16%

Incentive Expenses

Total expenses for August were \$1.5 million below budget, largely due to incentive spending. Spending for the year is now \$1 million below budget, which is a 1% variance. Spending vs. last year is 17% higher, or more than \$13 million.

Incentives for the month came in 13% below budget (\$0.8 million). Results by program are comparable to last month. A comparison with last year's incentive status is below. It shows the dramatic increase in incentive spending for all programs. We have spent more than \$10 million more on incentives this year than last year.

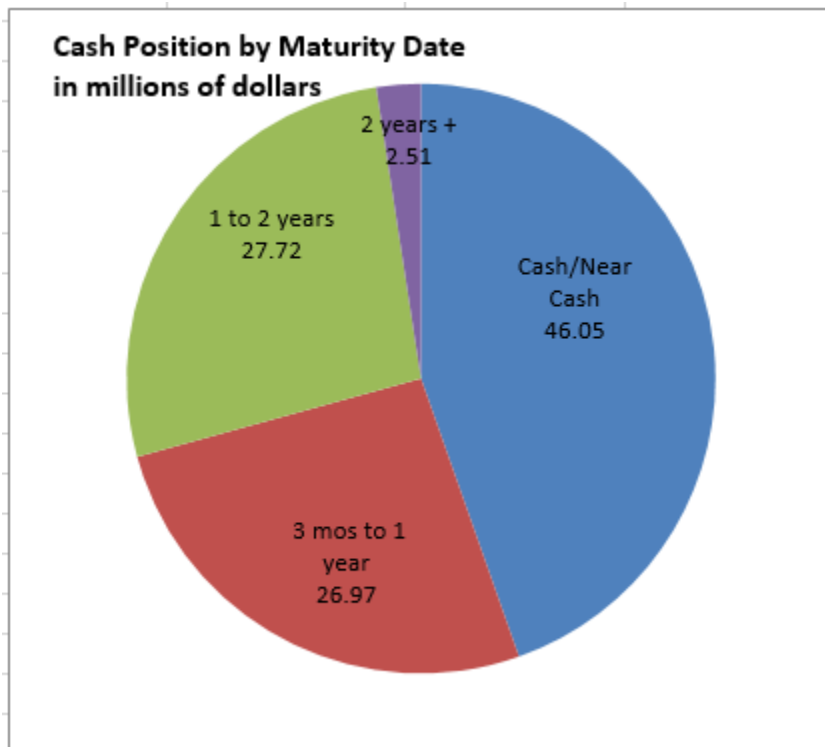
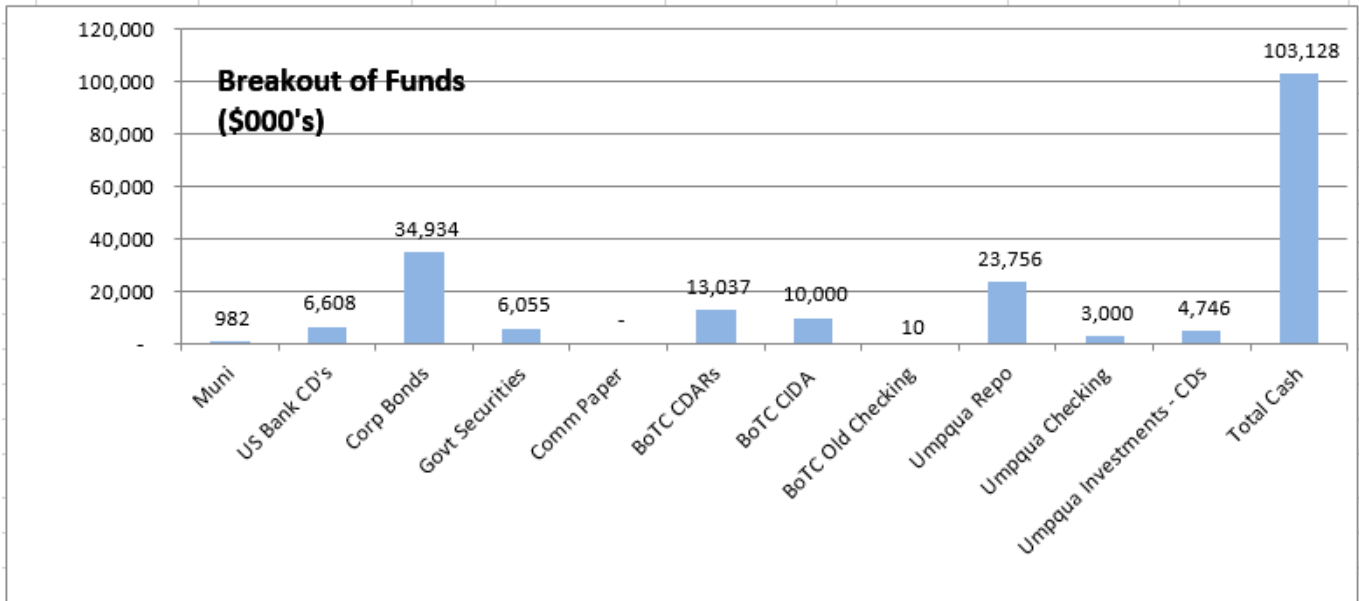


Incentives thru August 2015	Total Incentives			
	<u>Actual</u>	<u>Budget</u>	<u>Variance</u>	<u>Var %</u>
Existing Buildings	11,598,287	10,561,523	(1,036,764)	-10%
New Buildings	3,562,772	2,449,091	(1,113,682)	-45%
Production Efficiency	7,511,688	5,995,030	(1,516,658)	-25%
Existing Homes	5,712,965	6,481,310	768,345	12%
New Homes & Products	8,225,986	10,438,955	2,212,969	21%
Washington Programs - All	289,600	358,416	68,817	19%
Solar	5,796,831	4,264,767	(1,532,064)	-36%
Open Solicitation	1,796,758	2,315,439	518,681	22%
Total Incentives	44,494,887	42,864,531	(1,630,356)	-4%
Energy Efficiency Only	36,901,298	36,284,325	(616,972)	-2%
Act Incent to Annual Budget	39%	94,486,648		

August 2015 vs. August 2014	Total Incentives			
	<u>Current Year</u>	<u>Prior Year</u>	<u>Variance</u>	<u>Var %</u>
Existing Buildings	11,598,287	7,777,564	(3,820,723)	-49%
New Buildings	3,562,772	3,051,809	(510,964)	-17%
Production Efficiency	7,511,688	6,299,077	(1,212,611)	-19%
Existing Homes	5,712,965	4,770,010	(942,956)	-20%
New Homes & Products	8,225,986	7,469,036	(756,950)	-10%
Washington Programs - All	289,600	203,384	(86,216)	-42%
Solar	5,796,831	3,074,745	(2,722,086)	-89%
Open Solicitation	1,796,758	1,473,061	(323,698)	-22%
Total Incentives	44,494,887	34,118,684	(10,376,207)	-30%
Energy Efficiency Only	36,901,298	29,570,878	(7,330,420)	-25%

Investment Status

The graphs below show the type of investments we hold and the locations where our funds are held at the end of August (including cash). The second graph shows our overall liquidity. \$5 million of Commercial Paper matured in August and we have not yet reinvested it. The average liquidity for all assets held at 8/31/15 was 198 days.



Energy Trust of Oregon
BALANCE SHEET
August 31, 2015
(Unaudited)

	August 2015	July 2015	Dec 2014	August 2014	Change from one month ago	Change from Beg. of Year	Change from one year ago
Current Assets							
Cash & Cash Equivalents	36,770,275	30,660,832	51,411,367	68,876,378	6,109,444	(14,641,091)	(32,106,103)
Investments	66,153,365	70,742,889	64,490,244	52,622,241	(4,589,524)	1,663,121	13,531,124
Receivables	358,376	323,449	323,531	177,345	34,926	34,845	181,030
Prepaid Expenses	447,890	527,318	405,430	645,303	(79,428)	42,461	(197,413)
Advances to Vendors	847,012	1,376,599	1,482,149	1,193,129	(529,587)	(635,137)	(346,117)
Current Portion Note Receivable			0	10,000	0	0	(10,000)
Total Current Assets	104,576,918	103,631,087	118,112,720	123,524,397	945,831	(13,535,802)	(18,947,479)
Fixed Assets							
Computer Hardware and Software	3,481,079	3,350,062	1,653,762	1,469,009	131,017	1,827,317	2,012,070
Software Development in Progress	123,293	207,256	102,590.62	660,321.13	(83,964)	(902,616)	(537,028)
Leasehold Improvements	318,964	318,964	318,964	313,333	-	-	5,631
Office Equipment and Furniture	698,874	698,874	679,343	600,662	-	19,530.75	98,212
Total Fixed Assets	4,622,210	4,575,157	3,677,978	3,043,325	47,053	944,231	1,578,885
Less Depreciation	(2,360,728)	(2,278,752)	(1,831,551)	(1,719,946)	(81,976)	(529,177)	(640,782)
Net Fixed Assets	2,261,482	2,296,405	1,846,428	1,323,379	(34,923)	415,054	938,103
Other Assets							
Deposits	132,340	132,340	135,340	64,461	0	(3,000)	67,879
Deferred Compensation Asset	699,461	691,211	630,176	557,265	8,250	69,285	142,196
Note Receivable, net of allowance	86,789	86,789	86,789	90,000	-	-	(3,211)
Total Other Assets	918,590	910,340	852,305	711,727	8,250	66,285	206,864
Total Assets	107,756,991	106,837,832	120,811,454	125,559,503	919,158	(13,054,463)	(17,802,512)
Current Liabilities							
Accounts Payable and Accruals	8,474,295	8,465,582	31,924,631	8,058,190	8,712	(23,450,336)	416,104
Salaries, Taxes, & Benefits Payable	721,697	765,845	671,849	687,992	(44,148)	49,848	33,705
Total Current Liabilities	9,195,992	9,231,427	32,596,480	8,746,182	(35,436)	(23,400,488)	449,810
Long Term Liabilities							
Deferred Rent	327,465	330,243	349,692	355,681	(2,778)	(22,227)	(28,216)
Deferred Compensation Payable	699,461	691,211	632,976	557,265	8,250	66,485	142,196
Other Long-Term Liabilities	5,420	5,460	5,185	8,123	(40.00)	235	(2,703)
Total Long-Term Liabilities	1,032,345	1,026,914	987,852	921,069	5,432	44,493	111,276
Total Liabilities	10,228,337	10,258,341	33,584,332	9,667,251	(30,004)	(23,355,995)	561,086
Net Assets							
Unrestricted Net Assets	97,528,654	96,579,492	87,227,121	115,892,252	949,162	10,301,532	(18,363,598)
Total Net Assets	97,528,654	96,579,492	87,227,121	115,892,252	949,162	10,301,532	(18,363,598)
Total Liabilities and Net Assets	107,756,991	106,837,832	120,811,454	125,559,503	919,158	(13,054,463)	(17,802,512)

Energy Trust of Oregon
Cash Flow Statement-Indirect Method
Monthly 2015

	<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:									
<i>Revenue less Expenses</i>	8,620,993	6,726,499	1,531,158	715,318	(2,736,736)	(4,113,196)	(1,391,665)	949,161	\$ 10,301,530
<i>Non-cash items:</i>									
Depreciation	40,242	41,284	64,566	71,460	73,396	75,252	81,000	81,976	529,176
Change in Reserve on Long Term Note	-	-	-	-	-	-	-	-	-
Loss on disposal of assets	-	-	-	-	-	-	-	-	-
Receivables	5,800	11,583	-	(7,684)	-	(10,698)	5,001	-	4,002
Interest Receivable	4,268	(50,180)	58,204	8,452	(43,458)	9,862	8,932	(34,926)	(38,846)
Advances to Vendors	543,337	465,160	(1,177,147)	228,917	594,462	(1,000,894)	451,715	529,587	635,137
Prepaid expenses and other costs	14,982	47,842	(254,416)	68,730	7,275	95,511	(101,812)	79,428	(42,460)
Accounts payable	(20,265,729)	(2,448,214)	(352,009)	212,675	(972,984)	457,462	(90,250)	8,713	(23,450,336)
Payroll and related accruals	17,794	52,944	96,210	(24,170)	24,831	10,229	(25,607)	(35,898)	116,333
Deferred rent and other	(11,515)	(11,028)	(10,673)	(8,029)	(13,988)	(11,029)	(10,948)	(11,068)	(88,278)
Cash rec'd from / (used in) Operating Activities	(11,029,828)	4,835,890	(44,107)	1,265,669	(3,067,202)	(4,487,501)	(1,073,634)	1,566,973	\$ (12,033,740)
Investing Activities:									
Investment Activity (1)	(2,475,092)	(5,431,428)	(1,217,888)	2,835,537	3,803,928	(2,582,238)	(1,185,464)	4,589,524	(1,663,121)
(Acquisition)/Disposal of Capital Assets	(132,268)	(142,396)	(143,192)	(151,901)	(98,053)	(128,592)	(100,776)	(47,053)	(944,231)
Cash rec'd from / (used in) Investing Activities	(2,607,360)	(5,573,824)	(1,361,080)	2,683,636	3,705,875	(2,710,830)	(1,286,240)	4,542,471	\$ (2,607,352)
Cash at beginning of Period	51,411,367	37,774,180	37,036,243	35,631,058	39,580,364	40,219,037	33,020,705	30,660,832	51,411,367
Increase/(Decrease) in Cash	(13,637,187)	(737,934)	(1,405,187)	3,949,305	638,673	(7,198,331)	(2,359,874)	6,109,444	(14,641,092)
Cash at end of period	\$ 37,774,180	\$ 37,036,243	\$ 35,631,058	\$ 39,580,364	\$ 40,219,037	\$ 33,020,705	\$ 30,660,832	\$ 36,770,275	\$ 36,770,275

(1) As investments mature, they are rolled into the Repo account.
Investments that are made during the month reduce available cash.

Energy Trust of Oregon
Cash Flow Projection
January 2015 - December 2016

	Actual								2015 Budget			
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	15,740,912	15,125,779	12,539,730	13,204,663	10,891,616	10,343,345	11,275,486	11,838,796	11,121,629	11,326,344	11,042,091	13,472,241
From other sources	5,800	11,583	-	(7,684)	700	(10,698)	5,351	-	-	-	-	-
Investment Income	110,630	(27,478)	123,371	70,057	8,631	12,301	48,465	(14,203)	-	-	-	-
Total cash in	15,857,342	15,109,884	12,663,101	13,267,036	10,900,947	10,344,948	11,329,302	11,824,593	11,121,629	11,326,344	11,042,091	13,472,241
Cash Out:	29,494,530	15,847,819	14,068,288	9,317,730	10,262,273	17,543,282	13,689,174	5,715,147	13,519,594	14,374,687	11,117,585	19,760,354
Net cash flow for the month	(13,637,188)	(737,935)	(1,405,187)	3,949,306	638,674	(7,198,334)	(2,359,872)	6,109,446	(2,397,965)	(3,048,343)	(75,494)	(6,288,113)
Beginning Balance: Cash & MM	51,411,367	37,774,180	37,036,248	35,631,058	39,580,364	40,219,037	33,020,705	30,660,832	36,770,275	34,372,310	31,323,967	31,248,473
Ending cash & MM	37,774,180	37,036,243	35,631,058	39,580,364	40,219,037	33,020,705	30,660,832	36,770,275	34,372,310	31,323,967	31,248,473	24,960,359

Future Commitments

Renewable Incentives	17,600,000	17,500,000	17,000,000	16,900,000	16,600,000	14,600,000	14,400,000	14,200,000	11,400,000	10,300,000	10,400,000	10,400,000
Efficiency Incentives	48,400,000	47,100,000	63,000,000	60,400,000	58,500,000	62,200,000	58,900,000	58,800,000	61,000,000	77,100,000	71,200,000	61,400,000
Emergency Contingency Pool	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
Total Commitments	71,000,000	69,600,000	85,000,000	82,300,000	80,100,000	81,800,000	78,300,000	78,000,000	77,400,000	92,400,000	86,600,000	76,800,000

(1) Included 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 2015 - December 2016

2016 Budgeted Amounts												
	January	February	March	April	May	June	July	August	September	October	November	December
Cash In:												
Public purpose and Incr funding	14,500,000	14,800,000	14,500,000	13,500,000	11,100,000	10,400,000	11,700,000	10,700,000	10,300,000	12,600,000	11,300,000	13,600,000
From other sources												
Investment Income	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Total cash in	14,524,000	14,824,000	14,524,000	13,524,000	11,124,000	10,424,000	11,724,000	10,724,000	10,324,000	12,624,000	11,324,000	13,624,000
Cash Out:	33,500,000	10,700,000	12,000,000	12,700,000	11,900,000	13,900,000	14,800,000	12,600,000	14,700,000	13,700,000	14,600,000	16,800,000
Net cash flow for the month	(18,976,000)	4,124,000	2,524,000	824,000	(776,000)	(3,476,000)	(3,076,000)	(1,876,000)	(4,376,000)	(1,076,000)	(3,276,000)	(3,176,000)
Beginning Balance: Cash & MM	24,960,359	420,516	4,544,516	7,068,516	7,892,516	7,116,516	3,640,516	564,516	(1,311,484)	(5,687,484)	(6,763,484)	(10,039,484)
Ending cash & MM	420,516	4,544,516	7,068,516	7,892,516	7,116,516	3,640,516	564,516	(1,311,484)	(5,687,484)	(6,763,484)	(10,039,484)	(13,215,484)

Future Commitments

Renewable Incentives	10,400,000	11,000,000	11,900,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000
Efficiency Incentives	60,900,000	60,600,000	59,000,000	57,900,000	57,700,000	55,700,000	54,700,000	54,700,000	53,500,000	53,300,000	53,300,000	52,900,000
Emergency Contingency Pool	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
Total Commitments	76,300,000	76,600,000	75,900,000	75,900,000	75,700,000	73,700,000	72,700,000	72,700,000	71,500,000	71,300,000	71,300,000	70,900,000

(1) Included 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
Income Statement - Actual and Prior Yr Comparison
For the Month Ending August 31, 2015
(Unaudited)

	August				YTD			
	Actual	Actual Prior Year	Prior Year Variance	Variance %	Actual	Actual Prior Year	Prior Year Variance	Variance %
<u>REVENUES</u>								
Public Purpose Funds-PGE	3,317,490	2,959,623	357,868	12%	25,038,793	25,236,795	(198,002)	-1%
Public Purpose Funds-PacifiCorp	2,425,235	2,276,538	148,696	7%	18,338,590	18,594,061	(255,471)	-1%
Public Purpose Funds-NW Natural	426,721	628,067	(201,345)	-32%	10,566,137	14,746,714	(4,180,577)	-28%
Public Purpose Funds-Cascade	36,301	54,760	(18,458)	-34%	964,226	2,114,998	(1,150,771)	-54%
Total Public Purpose Funds	6,205,748	5,918,987	286,760	5%	54,907,746	60,692,568	(5,784,822)	-10%
Incremental Funds - PGE	3,770,899	3,778,427	(7,528)	0%	28,834,012	34,350,326	(5,516,314)	-16%
Incremental Funds - PacifiCorp	1,862,150	2,104,235	(242,085)	-12%	14,487,889	17,937,002	(3,449,112)	-19%
NW Natural - Industrial DSM			0		2,052,288	2,048,702	3,586	0%
NW Natural - Washington			0		678,392	527,177	151,215	29%
Contributions			0		1,050	13,400	(12,350)	-92%
Revenue from Investments	20,722	24,868	(4,145)	-17%	370,620	145,743	224,877	154%
TOTAL REVENUE	11,859,518	11,826,517	33,001	0%	101,331,996	115,714,917	(14,382,920)	-12%
<u>EXPENSES</u>								
Program Subcontracts	3,952,653	3,938,991	(13,662)	0%	33,412,217	30,790,562	(2,621,655)	-9%
Incentives	5,268,864	4,786,697	(482,167)	-10%	44,494,887	34,118,684	(10,376,203)	-30%
Salaries and Related Expenses	863,481	820,288	(43,193)	-5%	6,997,658	6,923,983	(73,675)	-1%
Professional Services	609,096	627,186	18,089	3%	4,335,979	4,344,728	8,749	0%
Supplies	2,167	(3)	(2,170)	66573%	23,589	23,809	220	1%
Telephone	4,782	5,695	913	16%	39,013	36,731	(2,281)	-6%
Postage and Shipping Expenses	593	1,937	1,344	69%	9,592	9,144	(448)	-5%
Occupancy Expenses	52,739	53,333	594	1%	429,943	429,674	(269)	0%
Noncapitalized Equip. & Depr.	109,397	94,741	(14,656)	-15%	789,112	486,712	(302,399)	-62%
Call Center	7,118	12,971	5,853	45%	100,719	99,840	(879)	-1%
Printing and Publications	(612)	1,044	1,656	159%	51,891	79,586	27,694	35%
Travel	13,818	26,333	12,515	48%	96,577	99,818	3,241	3%
Conference, Training & Mtng Exp	12,862	31,124	18,263	59%	101,361	132,742	31,381	24%
Interest Expense and Bank Fees			0		1,774	2,000	226	11%
Insurance	8,486	8,339	(147)	-2%	69,918	67,844	(2,074)	-3%
Miscellaneous Expenses			0		225.16	3,016	2,791	
Dues, Licenses and Fees	4,912	10,372	5,461	53%	76,011	104,365	28,354	27%
TOTAL EXPENSES	10,910,356	10,419,048	(491,308)	-5%	91,030,464	77,753,237	(13,277,227)	-17%
TOTAL REVENUE LESS EXPENSES	949,162	1,407,469	(458,307)	33%	10,301,532	37,961,680	(27,660,148)	-73%

Energy Trust of Oregon
Income Statement - Actual and YTD Budget Comparison
For the Month Ending August 31, 2015
(Unaudited)

	August				YTD			
	Actual	Budget	Budget Variance	Variance %	Actual	Budget	Budget Variance	Variance %
<u>REVENUES</u>								
Public Purpose Funds-PGE	3,317,490	2,945,352	372,139	13%	25,038,793	25,115,933	(77,140)	0%
Public Purpose Funds-PacifiCorp	2,425,235	2,329,581	95,654	4%	18,338,590	18,805,802	(467,212)	-2%
Public Purpose Funds-NW Natural	426,721	474,414	(47,693)	-10%	10,566,137	11,139,019	(572,883)	-5%
Public Purpose Funds-Cascade	36,301	57,411	(21,110)	-37%	964,226	1,263,048	(298,821)	-24%
Total Public Purpose Funds	6,205,748	5,806,758	398,989	7%	54,907,746	56,323,802	(1,416,056)	-3%
Incremental Funds - PGE	3,770,899	3,072,633	698,266	23%	28,834,012	27,933,828	900,183	3%
Incremental Funds - PacifiCorp	1,862,150	1,697,429	164,721	10%	14,487,889	13,884,971	602,918	4%
NW Natural - Industrial DSM			0		2,052,288	1,998,281	54,007	3%
NW Natural - Washington			0		678,392	705,676	(27,284)	-4%
Contributions			0		1050		1050	
Revenue from Investments	20,722	24,000	(3,278)	-14%	370,620	192,000	178,620	93%
TOTAL REVENUE	11,859,518	10,600,819	1,258,699	12%	101,331,996	101,038,558	293,438	0%
<u>EXPENSES</u>								
Program Subcontracts	3,952,653	4,332,553	379,900	9%	33,412,217	33,751,260	339,043	1%
Incentives	5,268,864	6,056,907	788,043	13%	44,494,887	42,864,531	(1,630,356)	-4%
Salaries and Related Expenses	863,481	971,072	107,591	11%	6,997,658	7,865,897	868,239	11%
Professional Services	609,096	713,474	104,378	15%	4,335,979	5,505,063	1,169,084	21%
Supplies	2,167	3,650	1,483	41%	23,589	29,200	5,611	19%
Telephone	4,782	5,458	676	12%	39,013	43,917	4,904	11%
Postage and Shipping Expenses	593	1,100	507	46%	9,592	8,800	(792)	-9%
Occupancy Expenses	52,739	61,519	8,780	14%	429,943	492,150	62,208	13%
Noncapitalized Equip. & Depr.	109,397	156,872	47,475	30%	789,112	739,050	(50,062)	-7%
Call Center	7,118	13,000	5,882	45%	100,719	104,000	3,281	3%
Printing and Publications	(612)	10,946	11,558	106%	51,891	87,567	35,676	41%
Travel	13,818	14,508	691	5%	96,577	132,067	35,490	27%
Conference, Training & Mtng Exp	12,862	22,962	10,100	44%	101,361	217,793	116,432	53%
Interest Expense and Bank Fees		208	208	100%	1,774	1,667	(107)	-6%
Insurance	8,486	9,167	680	7%	69,918	73,333	3,416	5%
Miscellaneous Expenses			-		225.16		-225.16	
Dues, Licenses and Fees	4,912	2,723	(2,189)	-80%	76,011	94,083	18,073	19%
TOTAL EXPENSES	10,910,356	12,376,119	1,465,763	12%	91,030,464	92,010,378	979,915	1%
TOTAL REVENUE LESS EXPENSES	949,162	(1,775,300)	2,724,462	153%	10,301,532	9,028,180	1,273,353	14%

Energy Trust of Oregon
Statement of Functional Expenses
For the Eight Months Ending August 31, 2015
(Unaudited)

	Energy Efficiency	Renewable Energy	Total Program Expenses	Management & General	Communications & Customer Service	Total Admin Expenses	Total	Budget	Variance	% Var
Program Expenses										
Incentives/ Program Management & Deliver	\$70,058,790	\$ 7,848,313	\$ 77,907,104				\$ 77,907,104	\$76,615,791	\$(1,291,313)	-2%
Payroll and Related Expenses	2,011,416	607,836	2,619,252	1,358,070	799,337	2,157,406	4,776,658	5,199,373	422,715	8%
Outsourced Services	2,753,932	530,351	3,284,282	159,213	718,872	878,085	4,162,367	5,119,397	957,030	19%
Planning and Evaluation	1,289,493	42,862	1,332,356	953		953	1,333,308	1,587,798	254,490	16%
Customer Service Management	389,219	28,758	417,978				417,978	361,474	(56,504)	-16%
Trade Allies Network	207,404	14,116	221,519				221,519	267,539	46,020	17%
Total Program Expenses	76,710,254	9,072,236	85,782,491	1,518,235	1,518,209	3,036,443	88,818,934	89,151,372	332,438	0%
Program Support Costs										
Supplies	5,870	1,863	7,734	6,685	2,938	9,623	17,356	20,768	3,412	16%
Postage and Shipping Expenses	1,621	2,457	4,078	2,534	688	3,222	7,299	5,404	(1,895)	-35%
Telephone	1,659	557	2,217	1,036	824	1,860	4,077	6,566	2,489	38%
Printing and Publications	42,323	1,527	43,849	2,558	4,115	6,673	50,522	84,779	34,257	40%
Occupancy Expenses	122,579	41,160	163,739	76,534	52,041	128,574	292,314	327,020	34,706	11%
Insurance	19,934	6,693	26,627	12,446	8,463	20,909	47,536	48,728	1,192	2%
Equipment	4,020	57,217	61,237	2,510	1,707	4,217	65,454	89,855	24,401	27%
Travel	20,850	5,924	26,774	15,975	29,424	45,398	72,172	105,200	33,028	31%
Meetings, Trainings & Conferences	19,207	7,224	26,430	38,004	7,696	45,700	72,130	177,946	105,816	59%
Interest Expense and Bank Fees				1,774		1,774	1,774	1,667	(107)	-6%
Depreciation & Amortization	33,078	11,107	44,185	20,653	14,043	34,696	78,881	69,116	(9,765)	-14%
Dues, Licenses and Fees	38,847	7,170	46,017	(6,074)	12,892	6,818	52,834	67,058	14,224	21%
Miscellaneous Expenses	147	10	157	19	13	33	190		(190)	
IT Services	958,491	126,440	1,084,931	215,632	148,426	364,058	1,448,989	1,854,900	405,911	22%
Total Program Support Costs	1,268,626	269,350	1,537,976	390,284	283,270	673,553	2,211,530	2,859,007	647,477	23%
TOTAL EXPENSES	77,978,880	9,341,586	87,320,467	1,908,519	1,801,479	3,709,996	91,030,464	92,010,378	979,915	1%

OPUC Measure vs. 8% 5.2%

ENERGY TRUST OF OREGON
Year to Date by Program/Service Territory
For the Eight Months Ending August 31, 2015

Unaudited

ENERGY EFFICIENCY

	PGE	PacifiCorp	Total	NWN Industrial	NW Natural	Cascade	Oregon Total	NWN WA	ETO Total
REVENUES									
Public Purpose Funding	\$19,401,630	\$14,312,764	\$33,714,394	\$0	\$10,566,137	\$964,226	\$45,244,757	\$0	\$45,244,757
Incremental Funding	28,834,012	14,487,889	43,321,901	2,052,288			45,374,189	678,392	46,052,581
Contributions									
Revenue from Investments									
TOTAL PROGRAM REVENUE	41,890,353	25,042,110	66,932,463	2,052,288	10,139,415	927,925	80,052,092	678,392	80,730,484
EXPENSES									
Program Management (Note 3)	1,777,380	1,173,605	2,950,985	94,123	431,967	66,261	3,543,336	72,794	3,616,130
Program Delivery	14,919,698	10,278,977	25,198,675	512,336	2,901,094	393,167	29,005,271	239,133	29,244,404
Incentives	19,491,066	12,106,337	31,597,403	348,317	4,237,895	428,083	36,611,698	289,600	36,901,298
Program Eval & Planning Svcs.	1,273,051	872,679	2,145,729	22,726	275,701	25,832	2,469,990	27,606	2,497,596
Program Marketing/Outreach	1,529,991	1,053,576	2,583,566	15,562	530,914	42,286	3,172,328	38,458	3,210,786
Program Quality Assurance	10,953	9,084	20,038	0	6,846	413	27,297	0	27,297
Outsourced Services	316,667	206,304	522,971	10,551	74,501	8,049	616,074	0	616,074
Trade Allies & Cust. Svc. Mgmt.	255,236	191,404	446,640	2,271	118,687	8,497	576,095	20,528	596,623
IT Services	448,049	317,232	765,281	7,767	150,703	12,720	936,470	22,022	958,492
Other Program Expenses - all	155,038	98,946	253,987	5,263	29,616	3,717	292,581	17,600	310,181
TOTAL PROGRAM EXPENSES	40,177,129	26,308,144	66,485,275	1,018,916	8,757,924	989,025	77,251,140	727,741	77,978,880
ADMINISTRATIVE COSTS									
Management & General (Notes 1&2)	878,131	575,003	1,453,133	22,270	191,417	21,616	1,688,439	15,907	1,704,344
Communications & Customer Svc (Notes 1&2)	828,881	542,755	1,371,634	21,021	180,683	20,404	1,593,742	15,015	1,608,757
Total Administrative Costs	1,707,012	1,117,758	2,824,767	43,291	372,100	42,020	3,282,181	30,922	3,313,101
TOTAL PROG & ADMIN EXPENSES	41,884,141	27,425,902	69,310,042	1,062,207	9,130,024	1,031,045	80,533,321	758,663	81,291,982
TOTAL REVENUE LESS EXPENSES	6,351,501	1,374,751	7,726,253	990,081	1,436,113	(66,819)	10,085,625	(80,271)	10,005,356
NET ASSETS - RESERVES									
Cumulative Carryover at 12/31/14	27,816,061	15,090,308	42,906,369	580,920	9,503,289	1,156,900	54,147,478	217,848	54,365,326
Change in net assets this year	6,351,501	1,374,751	7,726,253	990,081	1,436,113	(66,819)	10,085,625	(80,271)	10,005,356
Ending Net Assets - Reserves	34,167,562	16,465,059	50,632,622	1,571,001	10,939,402	1,090,081	64,233,103	137,577	64,370,682
Ending Reserve by Category									
Program Reserves (Efficiency and Renewables)	34,167,562	16,465,059	50,632,622	1,571,001	10,939,402	1,090,081	64,233,103	137,577	64,370,682
Operational Contingency Pool									
Emergency Contingency Pool									
TOTAL NET ASSETS CUMULATIVE	34,167,562	16,465,059	50,632,622	1,571,001	10,939,402	1,090,081	64,233,103	137,577	64,370,682

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

Note 2) Admin costs are allocated for mgmt reporting only. GAAP for Not for Profits does not allow allocation of admin costs to program expenses.

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

ENERGY TRUST OF OREGON
Year to Date by Program/Service Territory
For the Eight Months Ending August 31, 2015

	RENEWABLE ENERGY			Unaudited	TOTAL	Approved budget	Change	% Change
	PGE	PacifiCorp	Total	Other	All Programs			
REVENUES								
Public Purpose Funding	\$5,637,163	\$4,025,826	\$9,662,989	0	\$54,907,746	\$56,323,802	(\$1,416,056)	-3%
Incremental Funding					46,052,581	44,522,756	1,529,825	3%
Contributions				1,050	1,050		1,050	
Revenue from Investments				370,620	370,620	192,000	178,620	93%
TOTAL PROGRAM REVENUE	4,894,062	3,496,985	8,391,047	371,670	101,331,996	101,038,558	293,439	0%
EXPENSES								
Program Management (Note 3)	407,091	214,062	621,154		4,237,284	4,679,853	442,569	9%
Program Delivery	150,778	90,613	241,391		29,485,795	29,515,816	30,021	0%
Incentives	5,252,142	2,341,447	7,593,589		44,494,887	42,864,531	(1,630,356)	-4%
Program Eval & Planning Svcs.	28,613	15,328	43,942		2,541,538	3,231,783	690,245	21%
Program Marketing/Outreach	90,837	58,044	148,880		3,359,666	3,678,721	319,055	9%
Program Quality Assurance	0	0	0		27,297	62,500	35,203	56%
Outsourced Services	111,537	268,854	380,392		996,466	1,223,216	226,750	19%
Trade Allies & Cust. Svc. Mgmt.	29,391	13,483	42,874		639,497	629,013	(10,484)	-2%
IT Services	82,937	43,503	126,440		1,084,932	1,388,857	303,925	22%
Other Program Expenses - all	93,143	49,782	142,925		453,106	632,990	179,884	28%
TOTAL PROGRAM EXPENSES	6,246,469	3,095,116	9,341,586	-	87,320,467	87,907,280	586,813	1%
ADMINISTRATIVE COSTS								
Management & General (Notes 1&2)	136,526	67,649	204,174		1,908,519	2,216,398	307,879	14%
Communications & Customer Svc (Notes 1&2)	128,869	63,854	192,723		1,801,479	1,886,703	85,224	5%
Total Administrative Costs	265,395	131,503	396,897		3,709,996	4,103,101	393,105	10%
TOTAL PROG & ADMIN EXPENSES	6,511,864	3,226,619	9,738,484		91,030,464	92,010,378	979,915	1%
TOTAL REVENUE LESS EXPENSES	(874,701)	799,207	(75,495)	371,670	10,301,532	9,028,180	1,273,353	14%
NET ASSETS - RESERVES								
Cumulative Carryover at 12/31/14	13,736,997	10,937,994	24,674,991	8,186,804	87,227,121	88,912,387	(1,685,266)	-2%
Change in net assets this year	(874,701)	799,207	(75,495)	371,670	10,301,532	9,028,180	1,273,353	14%
Ending Net Assets - Reserves	12,862,296	11,737,201	24,599,496	8,558,474	97,528,654	97,940,567	(411,913)	0%
Ending Reserve by Category								
Program Reserves (Efficiency and Renewables)	12,862,296	11,737,201	24,599,496		92,528,654			
Operational Contingency Pool				3,558,474				
Emergency Contingency Pool				5,000,000	5,000,000			
TOTAL NET ASSETS CUMULATIVE	12,862,296	11,737,201	24,599,496	8,558,474	97,528,654	97,940,567	(411,913)	0%

Energy Trust of Oregon
Program Expense by Service Territory
For the Eight Months Ending August 31, 2015
(Unaudited)

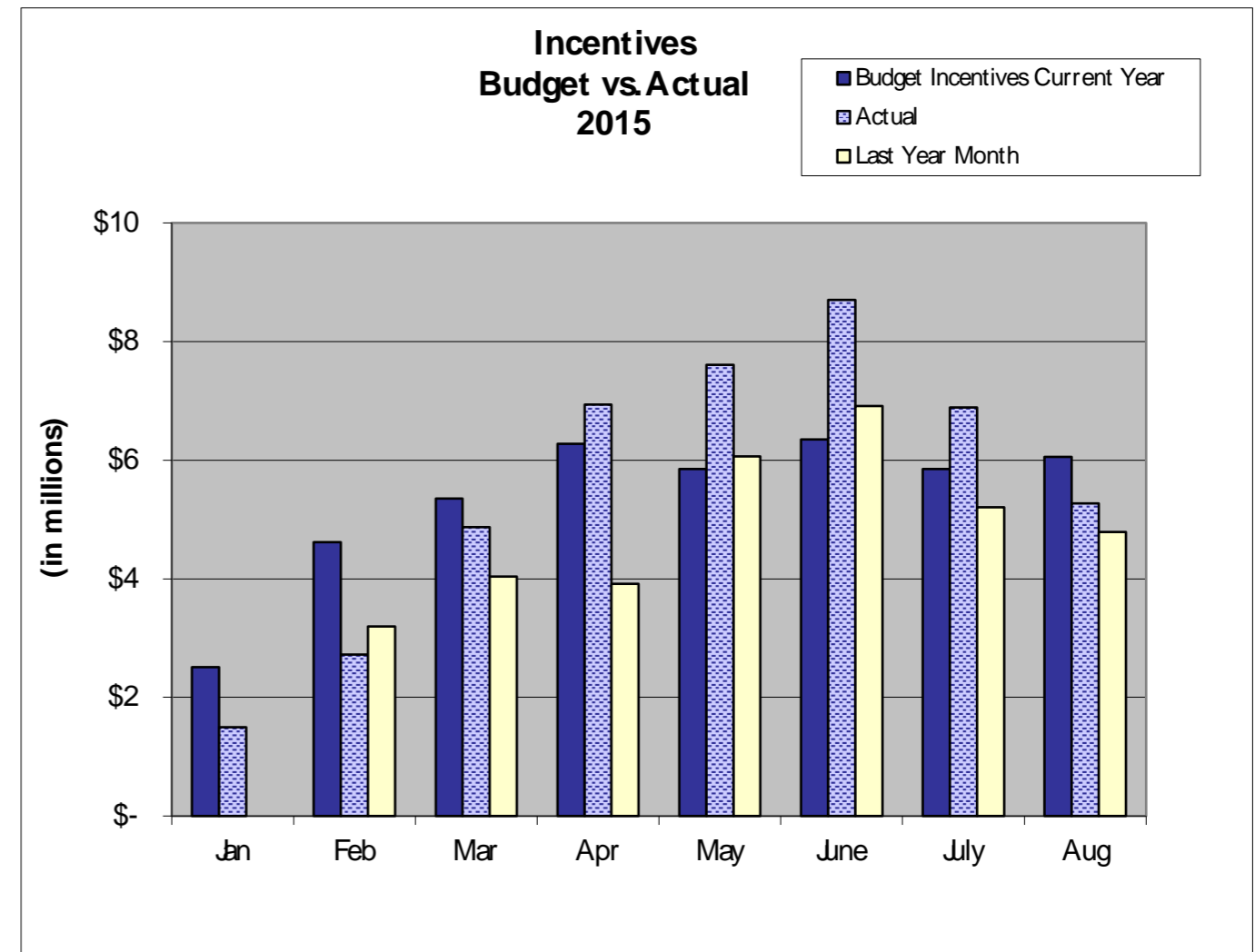
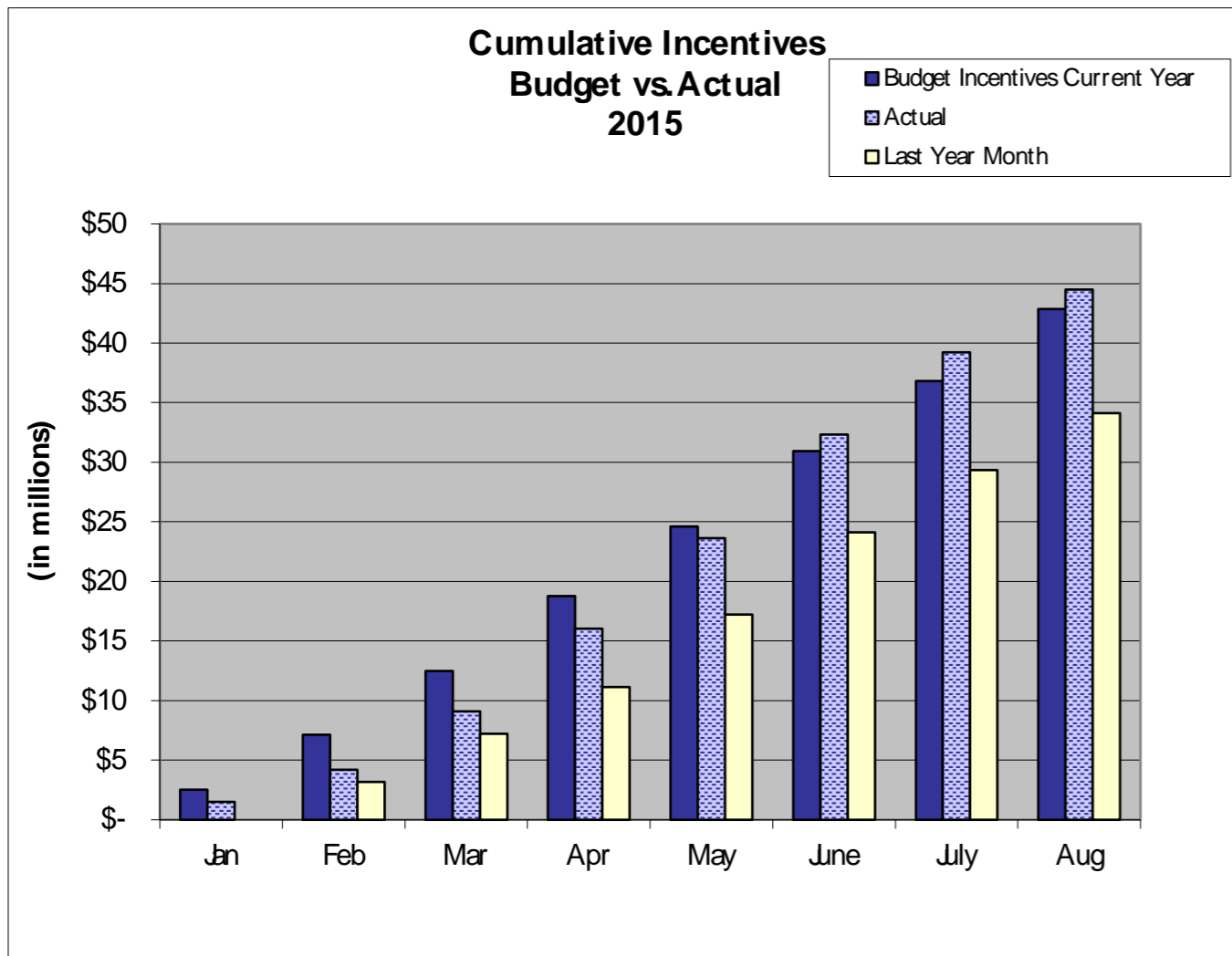
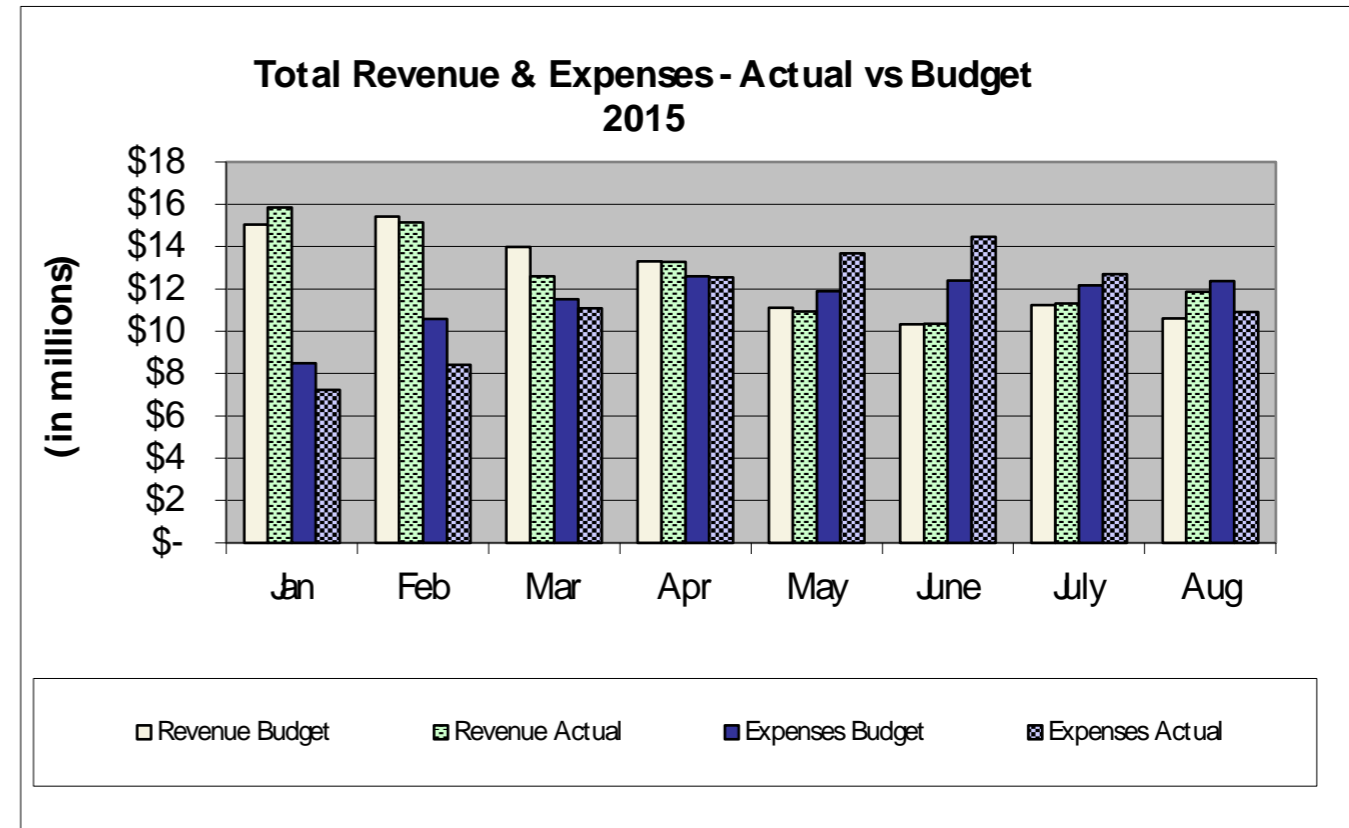
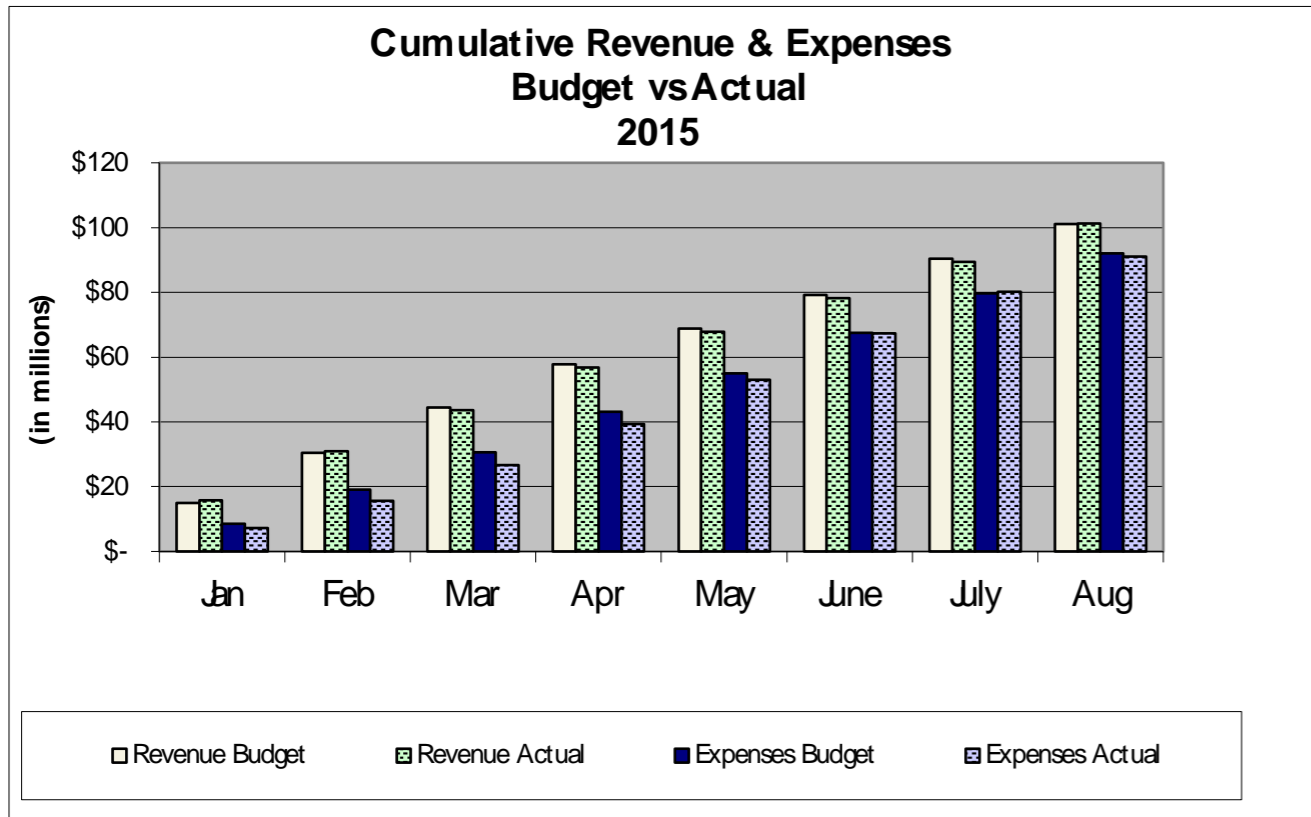
	PGE	Pacific Power	Subtotal Elec.	NWN Industrial	NW Natural Gas	Cascade	Subtotal Gas	Oregon Total	NWN WA	ETO Total	YTD Budget	Variance	% Var
Energy Efficiency													
Commercial													
Existing Buildings	\$ 13,109,058	\$ 9,050,233	\$ 22,159,291	\$ 463,625	\$ 1,708,648	\$ 302,217	\$ 2,474,490	\$ 24,633,781	\$ 220,831	\$ 24,854,612	\$ 24,253,732	\$ (600,880)	-2%
New Buildings	4,443,896	2,559,209	7,003,105	26,115	524,792	94,719	645,626	7,648,731		7,648,731	6,978,719	(670,012)	-10%
NEEA	867,795	617,060	1,484,855		76,753	7,887	84,641	1,569,496	6,804	1,576,300	1,884,623	308,323	16%
Total Commercial	18,420,748	12,226,503	30,647,251	489,740	2,310,193	404,824	3,204,757	33,852,008	227,635	34,079,643	33,117,074	(962,569)	-3%
Industrial													
Production Efficiency	9,732,205	5,723,029	15,455,234	572,467	403,048	165,336	1,140,852	16,596,086		16,596,086	15,267,131	(1,328,955)	-9%
NEEA	178,836	127,782	306,618					306,618		306,618	104,408	(202,210)	-194%
Total Industrial	9,911,041	5,850,812	15,761,852	572,467	403,048	165,336	1,140,852	16,902,704	-	16,902,704	15,371,539	(1,531,165)	-10%
Residential													
Existing Homes	4,458,225	4,616,254	9,074,479	-	3,489,096	174,560	3,663,656	12,738,135	266,485	13,004,620	14,300,303	1,295,683	9%
New Homes/Products	7,653,496	3,710,741	11,364,237	-	2,773,015	270,086	3,043,102	14,407,339	249,202	14,656,541	17,696,855	3,040,314	17%
NEEA	1,440,629	1,021,593	2,462,222		154,673	16,239	170,912	2,633,134	15,338	2,648,472	2,723,543	75,071	3%
Total Residential	13,552,350	9,348,589	22,900,939	-	6,416,784	460,886	6,877,669	29,778,608	531,025	30,309,633	34,720,701	4,411,068	13%
Energy Efficiency Costs	41,884,139	27,425,903	69,310,042	1,062,207	9,130,025	1,031,046	11,223,278	80,533,320	758,660	81,291,980	83,209,314	1,917,334	2%
Renewables													
Solar Electric (Photovoltaic)	4,933,735	2,246,077	7,179,812					7,179,812		7,179,812	5,685,437	(1,494,375)	-26%
Other Renewable	1,578,128	980,545	2,558,673					2,558,673		2,558,673	3,115,627	556,954	18%
Renewables Costs	6,511,863	3,226,622	9,738,485	-	-	-	-	9,738,485	-	9,738,485	8,801,064	(937,421)	-11%
Cost Grand Total	48,396,002	30,652,525	79,048,527	1,062,207	9,130,025	1,031,046	11,223,278	90,271,805	758,660	91,030,464	92,010,378	979,915	1%

Energy Trust of Oregon
Administrative Expenses
For the 3rd Quarter and Eight Months Ending August 31, 2015
(Unaudited)

EXPENSES	MANAGEMENT & GENERAL						COMMUNICATIONS & CUSTOMER SERVICE					
	ACTUAL	QUARTER		YTD			ACTUAL	QUARTER		YTD		
		BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE		BUDGET	REMAINING	ACTUAL	BUDGET	VARIANCE
Outsourced Services	\$26,466	\$80,922	\$54,456	\$144,199	\$274,792	\$130,593	\$248,265	\$336,775	\$88,510	\$718,872	\$688,842	(\$30,030)
Legal Services	248	6,750	6,503	15,013	18,000	2,987						
Salaries and Related Expenses	344,637	530,459	185,822	1,358,041	1,395,478	37,437	193,326	332,886	139,560	799,317	887,696	88,379
Supplies	1,779	1,075	(704)	3,220	2,867	(354)	95	250	155	582	667	84
Telephone							80		(80)	120		(120)
Postage and Shipping Expenses	256		(256)	1,522		(1,522)						
Printing and Publications	519	88	(431)	2,065	233	(1,832)	2,376	1,250	(1,126)	3,780	3,333	(447)
Travel	1,663	12,387	10,725	15,975	33,033	17,059	14,100	6,250	(7,850)	29,424	16,667	(12,757)
Conference, Training & Mtngs	11,510	36,672	25,162	37,781	86,393	48,612	1,984	3,500	1,516	7,545	9,333	1,789
Interest Expense and Bank Fees		625	625	1,774	1,667	(107)						
Dues, Licenses and Fees	4,085	1,419	(2,666)	(6,074)	4,013	10,087	2,920	2,125	(795)	12,892	5,667	(7,225)
Shared Allocation (Note 1)	29,464	46,031	16,567	118,418	122,750	4,332	19,219	31,685	12,466	80,521	84,493	3,972
IT Service Allocation (Note 2)	60,110	114,276	54,166	215,632	276,038	60,406	41,376	78,660	37,284	148,426	190,005	41,579
Planning & Eval	258	423	164	953	1,134	182						
TOTAL EXPENSES	480,995	831,128	350,132	1,908,519	2,216,398	307,880	523,741	793,380	269,639	1,801,479	1,886,703	85,224

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

Note 2) Represents allocation of Shared IT Costs



For contracts with costs
through: 9/1/2015

CONTRACTOR	Description	City	EST COST	Actual TTD	Remaining	Start	End
Administration							
Administration Total:			6,578,049	3,131,668	3,446,381		
Communications							
Communications Total:			3,782,146	2,910,651	871,495		
Energy Efficiency							
Northwest Energy Efficiency Alliance	Regional EE Initiative Agmt	Portland	33,662,505	4,765,177	28,897,328	1/1/2015	7/1/2020
ICF Resources, LLC	2015 BE PMC	Fairfax	9,361,147	6,429,119	2,932,028	1/1/2015	12/31/2015
CLEAResult Consulting Inc	2015 HES PMC	Austin	6,831,251	4,283,911	2,547,340	1/1/2015	12/31/2015
Northwest Energy Efficiency Alliance	Regional Gas EE Initiative	Portland	6,200,354	274,263	5,926,091	1/1/2015	7/1/2020
CLEAResult Consulting Inc	2015 NBE PMC	Austin	4,986,181	2,757,056	2,229,125	1/1/2015	12/31/2015
Lockheed Martin Services, Inc.	2015 MF PMC	Cherry Hill	4,158,899	2,598,239	1,560,660	1/1/2015	12/31/2015
Ecova Inc	2015 Products PMC	Spokane	3,601,890	2,306,157	1,295,733	1/1/2015	1/31/2016
CLEAResult Consulting Inc	2015 NH PMC	Austin	2,772,252	1,716,995	1,055,257	1/1/2015	12/31/2015
Energy 350 Inc	PDC - PE 2015	Portland	2,388,150	1,475,897	912,253	1/1/2015	12/31/2015
Portland General Electric	PDC - PE 2015	Portland	2,211,000	1,458,303	752,697	1/1/2015	12/31/2015
Oregon State University	CHP Project - OSU	Corvallis	2,024,263	1,982,682	41,581	12/20/2010	1/31/2016
Northwest Power & Conservation Council	RTF Funding Agreement		1,825,000	321,766	1,503,234	2/25/2015	12/31/2019
Cascade Energy, Inc.	PDC - PE 2015 Small Industrial	Walla Walla	1,497,000	1,026,975	470,025	1/1/2015	12/31/2015
NEXANT, INC.	PDC - PE 2015	San Francisco	1,344,550	1,047,994	296,556	1/1/2015	12/31/2015
Evergreen Consulting Group, LLC	PE Lighting PDC 2015	Tigard	1,296,000	795,599	500,401	1/1/2015	12/31/2015
RHT Energy Inc.	PDC - PE 2015	Medford	1,126,440	682,779	443,661	1/1/2015	12/31/2015
HST&V, LLC	PDC - SEM 2015	Portland	1,041,740	592,174	449,566	1/1/2015	12/31/2015
CLEAResult Consulting Inc	PDC - SEM 2015	Austin	695,500	363,902	331,598	1/1/2015	12/31/2015
EnergySavvy Inc.	EnergySavvy Online Audit Tool	Seattle	587,500	513,111	74,389	1/1/2012	12/31/2015
Clean Energy Works, Inc.	EE Incentive & Services Agmt	Portland	497,340	318,870	178,470	7/1/2014	12/31/2015
Cascade Energy, Inc.	SEM Curriculum	Walla Walla	404,080	404,080	0	5/1/2014	4/30/2016
Craft3	SWR Loan Origination/Loss Fund	Portland	305,000	8,850	296,150	6/1/2014	6/30/2015
Energy Market Innovations, Inc.	Lighting Controls Savings Est	Seattle	305,000	211,974	93,026	10/1/2014	9/30/2015
EnerNoc, Inc.	Commercial SEM curriculum	Boston	300,915	236,616	64,299	6/27/2014	5/30/2016
Craft3	Loan Agreement	Portland	300,000	100,000	200,000	6/1/2014	6/20/2025
CLEAResult Consulting Inc	2015 HES WA PMC	Austin	277,600	171,824	105,776	1/1/2015	12/31/2015
Home Performance Contractors Guild of Oregon	Existing Homes Program Support	Portland	248,750	212,731	36,019	1/1/2012	12/31/2015
KEMA Incorporated	Commercial SEM Impact Eval	Oakland	205,000	0	205,000	9/1/2015	6/30/2016

For contracts with costs
through: 9/1/2015

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ICF Resources, LLC	2015 BE NWN WA PMC	Fairfax	196,984	114,864	82,120	1/1/2015	12/31/2015
The Cadmus Group Inc.	PE SEM Impact Evaluation	Watertown	177,000	40,652	136,348	5/1/2015	12/31/2015
Northwest Energy Efficiency Alliance	Product Funding Agreement	Portland	171,851	171,851	0	6/5/2014	12/31/2015
Navigant Consulting Inc	CORE Improvement Pilot Eval	Boulder	140,000	140,000	0	9/1/2012	12/31/2015
ICF Resources, LLC	2015 BE DSM PMC	Fairfax	119,627	46,984	72,643	1/1/2015	12/31/2015
Abt SRBI Inc.	Fast Feedback Surveys	New York	118,000	92,987	25,013	1/31/2014	2/29/2016
ICF Resources, LLC	OSU CHP Performance Monitoring	Fairfax	100,000	54,458	45,543	7/1/2013	6/30/2016
1000 Broadway Building L.P.	Pay-for-Performance Pilot	Portland	88,125	0	88,125	10/17/2014	11/1/2018
Research Into Action, Inc.	SWR OnBill Repmt Pilot Eval	Portland	73,000	46,933	26,068	11/1/2014	6/30/2016
KEMA Incorporated	Impact Evaluation NBE '11-'14	Oakland	70,000	40,676	29,324	3/2/2015	11/30/2015
Pivotal Energy Solutions LLC	License Agreement	Gilbert	64,500	46,732	17,768	3/1/2014	12/31/2015
SBW Consulting, Inc.	Path to Net Zero Impact Eval	Bellevue	60,000	31,897	28,103	3/19/2015	12/31/2015
Earth Advantage, Inc.	New Homes Code Change Analysis	Portland	54,110	24,711	29,399	1/1/2015	11/30/2015
Balanced Energy Solutions LLC	New Homes QA Inspections	Portland	54,000	9,548	44,452	4/27/2015	12/31/2015
Pivotal Energy Solutions LLC	EPS New Home dbase construct	Gilbert	52,250	34,000	18,250	7/1/2014	6/30/2016
Evergreen Economics	New Homes Process Evaluation	Portland	50,000	10,415	39,585	6/1/2015	12/31/2015
PWP, Inc.	EB SBES Process Evaluation	Gaithersburg	50,000	0	50,000	9/14/2015	5/31/2016
MetaResource Group	Intel DX1 Mod 1&2 Megaproject	Portland	45,000	1,500	43,500	4/1/2015	5/1/2017
NEXANT, INC.	Products Process Evaluation '15	San Francisco	43,000	35,248	7,752	4/15/2015	10/15/2015
Evergreen Economics	Gas Hearth Mrkt Transformation	Portland	42,840	39,300	3,540	1/1/2015	11/30/2015
KEMA Incorporated	Billing Analysis Review	Oakland	35,000	0	35,000	3/15/2015	12/31/2016
Apex Analytics LLC	Gas Thermostat	Boulder	30,000	29,080	920	10/20/2014	12/31/2015
Research Into Action, Inc.	MPower Pilot Evaluation	Portland	30,000	16,062	13,938	2/1/2015	4/1/2016
Research Into Action, Inc.	LED Street Lighting Assessment	Portland	30,000	30,000	0	5/1/2015	10/31/2015
WegoWise Inc	benchmarking license 2015	Boston	30,000	10,312	19,688	6/15/2014	12/31/2016
Energy Center of Wisconsin	Billing Analysis Review	Madison	25,000	0	25,000	3/15/2015	12/31/2016
Evergreen Economics	Air Sealing Pilot Evaluation	Portland	25,000	1,155	23,845	10/15/2014	12/31/2015
Northwest Food Processors Association	NW Industrial EE Summit 2015	Portland	25,000	17,965	7,035	11/30/2014	12/31/2015
Portland General Electric	2015 Workshop Sponsorship	Portland	25,000	25,000	0	1/1/2015	12/31/2015
CLEARResult Consulting Inc	Professional Services/Trans	Austin	22,588	19,539	3,049	10/15/2014	10/15/2016
MetaResource Group	Pay-for-Performance Pilot Eval	Portland	20,000	0	20,000	7/1/2015	5/30/2016
MetaResource Group	Pay-for-Performance Pilot Eval	Portland	20,000	2,250	17,750	8/5/2014	12/31/2015
Consortium for Energy Efficiency	Membership Dues - 2015		18,736	18,736	0	1/1/2015	12/31/2015
Energy 350 Inc	Professional Services	Portland	14,920	14,920	0	12/10/2014	12/10/2016

For contracts with costs
through: 9/1/2015

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MetaResource Group	Mosier Well Energy Eff Study	Portland	13,500	3,750	9,750	7/1/2015	12/15/2015
Cascade Energy, Inc.	C/E & C/A Calculator Revisions	Walla Walla	12,100	3,450	8,650	5/21/2015	10/31/2015
American Council for and Energy Efficient Economy	Low-Income HH Sponsorship		10,000	10,000	0	7/22/2015	12/31/2015
American Council for and Energy Efficient Economy	Intelligent Effncy Sponsorship		10,000	10,000	0	7/22/2015	12/31/2015
American Council for and Energy Efficient Economy	EE Measures Sponsorship		10,000	10,000	0	7/22/2015	12/31/2015
Research Into Action, Inc.	Professional Services	Portland	9,590	9,570	20	9/1/2014	8/31/2016
Bridgetown Printing Company	January 2015 Bill Insert	Portland	9,517	9,517	0	1/1/2015	12/31/2015
City of Portland Bureau of Planning & Sustainability	Sponsorships - 2015	Portland	8,000	8,000	0	1/1/2015	12/31/2015
Northwest Energy Efficiency Council	BOC 2015 Sponsorship	Seattle	7,900	0	7,900	1/1/2015	12/31/2015
Northwest Environmental Business Council	Future Energy Conference 2015	Portland	7,650	7,650	0	3/25/2015	12/31/2015
LightTracker, Inc.	CREED Data	Boulder	7,300	0	7,300	8/5/2015	8/4/2016
Apose Pty Ltd	Aspose.NET Words Software Lice	Lane Cove	5,045	5,040	5	12/3/2014	12/3/2015
Social Enterprises Inc.	GoGreen Sponsorship - 2015	Portland	5,000	5,000	0	5/12/2015	12/31/2015
Sustainable Northwest	2015 Sponsorship	Portland	5,000	5,000	0	9/1/2015	9/1/2016
Energy Efficiency Total:			92,697,439	38,311,792	54,385,647		

Joint Programs

Portland State University	Technology Forecasting		120,132	99,493	20,639	11/7/2011	12/31/2015
E Source Companies LLC	E Source Service Agreement	Boulder	74,900	74,900	0	2/1/2014	1/31/2016
The Cadmus Group Inc.	Evaluation Consultant	Watertown	39,045	38,960	85	6/20/2013	2/28/2016
CoStar Realty Information Inc	Property Data	Baltimore	33,620	26,138	7,482	6/1/2011	5/31/2016
Research Into Action, Inc.	EH Attic Air Sealing Pilot Eva	Portland	30,000	30,000	0	10/8/2014	9/30/2016
Navigant Consulting Inc	P&E Consultant Services	Boulder	22,530	22,530	0	1/15/2014	12/30/2015
American Council for and Energy Efficient Economy	ACEEE Sponsorship - 2015		12,500	12,500	0	1/1/2015	12/31/2015
Joint Programs Total:			332,727	304,521	28,206		

Renewable Energy

Clean Water Services	Project Funding Agreement		3,000,000	1,000,000	2,000,000	11/25/2014	11/25/2039
JC-Biomethane LLC	Biogas Plant Project Funding	Eugene	2,000,000	1,000,000	1,000,000	10/18/2012	10/18/2032
Steel Bridge Solar, LLC	Project Funding Agreement	Seattle	2,000,000	0	2,000,000	3/27/2015	12/15/2040
Oregon Institute of Technology	Geothermal Resource Funding	Klamath Falls	1,550,000	1,550,000	0	9/11/2012	9/11/2032
Farm Power Misty Meadows LLC	Misty Meadows Biogas Facility	Mount Vernon	1,000,000	750,000	250,000	10/25/2012	10/25/2027
Three Sisters Irrigation District	TSID Hydro	Sisters	1,000,000	700,000	300,000	4/25/2012	9/30/2032
Farmers Irrigation District	FID - Plant 2 Hydro	Hood River	900,000	0	900,000	4/1/2014	4/1/2034
Tioga Solar VI, LLC	Photovoltaic Project Agreement	San Mateo	570,760	570,760	0	2/1/2009	2/1/2030
Old Mill Solar, LLC	Project Funding Agmt Bly, OR	Lake Oswego	490,000	0	490,000	5/29/2015	5/28/2030

For contracts with costs
through: 9/1/2015

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City of Medford	750kW Combined Heat & Power	Medford	450,000	450,000	0	10/20/2011	10/20/2031
City of Pendleton	Pendleton Microturbines	Pendleton	450,000	150,000	300,000	4/20/2012	4/20/2032
RES - Ag FGO LLC	Biogas Manure Digester Project	Washington	441,660	441,660	0	10/27/2010	10/27/2025
RES - Ag FGO LLC	Biogas Manure Digester - FGO	Washington	441,660	217,830	223,830	10/27/2010	10/27/2025
SunE Solar XVI Lessor, LLC	BVT Sexton Mtn PV	Bethesda	355,412	0	355,412	5/15/2014	12/31/2034
City of Gresham	City of Gresham Cogen 2		330,000	165,000	165,000	4/9/2014	7/9/2034
Farmers Conservation Alliance	Irrigation Collaboration Initi	Hood River	312,876	188,847	124,029	1/2/2015	12/31/2016
Clean Power Research, LLC	PowerClerk License	Napa	231,253	228,583	2,670	7/1/2014	6/30/2016
K2A Properties, LLC	Doerfler Wind Farm Project	Aumsville	230,000	230,000	0	5/20/2010	5/20/2030
Confederated Tribes of the Umatilla Indian Reservation	Small Wind Project Funding	Pendleton	170,992	170,992	0	7/25/2013	12/31/2028
Henley KBG, LLC	Henley Proj Dev Assistance	Reno	150,000	43,683	106,318	4/10/2014	12/31/2015
City of Astoria	Bear Creek Funding Agreement	Astoria	143,000	143,000	0	3/24/2014	3/24/2034
Klamath Basin Geopower Inc	Poe Valley Proj Dev Assistance	Reno	112,874	63,000	49,874	4/10/2014	12/31/2015
Gary Higbee DBA WindStream Solar	Solar Verifier Services	Eugene	100,000	50,361	49,639	8/1/2014	7/31/2016
Wallowa Resources Community Solutions, Inc.	Upfront Hydroelectric Project		100,000	26,433	73,568	10/1/2011	10/1/2015
Mapdwell LLC	Mapdwell Account	Boston	64,595	64,595	0	3/17/2014	11/30/2015
Solar Oregon	2015 Outreach Agreement	Portland	43,800	18,500	25,300	1/1/2015	2/29/2016
State of Oregon Dept of Geology & Mineral Industries	Lidar Data	Portland	40,000	0	40,000	11/7/2014	12/1/2015
Clean Energy States Alliance	CESA Membership		39,500	39,500	0	7/1/2015	6/30/2016
University of Oregon	UO SRML Contribution - 2015	Eugene	24,999	24,999	0	2/11/2015	3/8/2016
Robert Migliori	42kW wind energy system	Newberg	24,125	17,037	7,088	4/11/2007	1/31/2024
Solar Oregon	Education & Outreach Services	Portland	24,000	24,000	0	1/1/2014	12/31/2015
Solar Oregon	Website Upgrade Grant	Portland	20,000	8,000	12,000	12/8/2014	12/31/2015
Oregon Clean Power Cooperative	Grant Agreement	Corvallis	17,000	10,000	7,000	6/15/2015	6/30/2016
Warren Griffin	Griffin Wind Project	Salem	13,150	9,255	3,895	10/1/2005	10/1/2020
Future Resource Strategies, LLC	Brewery Biopower Anaerobic Dig	Salem	8,000	0	8,000	8/11/2015	10/31/2015
OSEIA-Oregon Solar Energy Industries Assoc	OSEIA 2015 Conf Sponsorship		7,500	7,500	0	1/1/2015	12/31/2015
Clean Energy States Alliance	CESA ITAC Sponsorship		5,000	5,000	0	1/1/2015	12/31/2015
Renewable Energy Total:			16,862,156	8,368,533	8,493,623		
Grand Total:			120,252,517	53,027,165	67,225,352		

Financial Glossary

(for internal use) - updated April 16, 2014

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.

Reserves

- 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.

Committed Funds

- 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; 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

Tab 4



Policy Committee Meeting

September 1, 2015, 3:30–5:00 pm

Attending by teleconference

Roger Hamilton, Ken Canon, Alan Meyer, John Reynolds

Attending at Energy Trust offices

Eddie Sherman, Amber Cole, Fred Gordon, Margie Harris, Steve Lacey, David McClelland, Debbie Menashe, Peter West

Policies for Review

Four policies were up for routine three-year review.

Authority to Commit Incentive Funds for Payment of Energy Efficiency Projects in Future Years

Policy 4.21.000-P allows programs to commit financial incentives in future years. It was first adopted in 2006, and amended in 2006 to authorize programs to commit funds from a current year's budget to projects in future years. Staff proposed to clarify that some of the policy's limitations apply to programs as a whole (that only so much of a program's budget may be projected into future years), and other policy limitations apply to individual financial incentive commitments (e.g., subject to milestones, tracking and other requirements).

In addition, the proposed changes removed a provision in the current policy that limits individual incentive commitments to two years. Commercial and industrial projects may involve longer-term commitments. The proposed changes would permit such commitments provided the overall limitation on programs budgets is respected, and the commitment is consistent with Energy Trust contracting policies and the OPUC grant agreement, which requires notice to the OPUC of financial commitments of more than two years.

The committee reviewed and discussed staff's proposed changes and recommends approval by the full board. The revised policy was referred to the consent agenda for the next full board meeting.

Program Approval Process

Policy 4.22.000-P was also reviewed by the committee. The Program Approval Process was adopted initially by the board in 2005. It amended the prior practice of authorizing programs in board resolutions and having to go back to the board whenever program details needed to change. The current policy manages programs and program modifications largely through the budget process. Staff proposed editorial changes and deletion of references to stretch versus conservative goals, which are no longer relevant.

The committee reviewed and discussed staff's proposed changes. While the committee agreed that references to stretch and conservative goals should be deleted as no longer relevant, the committee expressed concern that the language in the policy requiring programs to be "managed to achieve" goals should not have been deleted, recognizing that programs should be managed to achieve goals. Staff agreed, and the proposed policy language revisions were revised accordingly. With the revision from the staff's original proposal, the committee recommends approval by the full board. The revised policy was referred to the consent agenda for the next full board meeting.

Methodology for Evaluating Above-Market Costs of Renewable Resource Projects

Policy 4.07.000-P was last amended in 2012. Staff reviewed it in light of Energy Trust's new strategic plan and performance measures and recommended only minor editorial changes. These changes clarify that in staff review of projects, net project costs are analyzed, i.e., project costs are compared to market costs after deducting the project's tax benefits, government incentives and

income streams. This change makes explicit what is implicit in the existing policy, and reflects how staff has always operated. No other changes were recommended.

The committee reviewed and discussed staff's proposed changes and recommended that the added language refer specifically to "project income streams" for clarity. Staff will make the change. With that addition, the revised policy is recommended for approval by the full board. The revised policy was referred to the consent agenda for the next full board meeting.

Biopower Eligible Fuels policy

Policy 4.23.000-P was developed in 2006 in response to the question whether Energy Trust would be permitted to fund projects that burn "black liquor," a toxic by-product of forest processing. The issue arises because renewable energy resources are defined legally as "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." Staff analyzed the legal issue, discussed it several times with the Renewable Energy Advisory Council (RAC), and ended up with this policy, which permits providing Energy Trust funding for black liquor burning projects if they meet toxicity standards of applicable state and federal air agencies, with two exceptions: (1) if "they raise emission concerns not addressed in the regulatory process, in which case Energy Trust may investigate such concerns;" and (2) if they "use no more than a *de minimus* level of treated or painted wood." Staff advised the committee that it is not aware of any problems that have arisen under this policy and recommended no change. Committee members asked whether any black liquor projects had actually been considered by staff since inception of this policy, and staff responded that there have been a small number of inquiries, but that in no case were there above-market costs, and therefore no black liquor projects were funded.

The committee discussed how the policy may not have yet been fully tested, given the small amount of uptake for these types of projects, but committee members agreed that no policy language revision is necessary at this time, and the policy will continue in place until its next three year review.

Preview of Board Meeting Presentation

Pacific Power Large Solar Competitive Solicitation Results and Recommendation

David McClelland, Energy Trust solar program manager, briefed the committee on a proposed project incentive agreement. After reviewing funding availability, and consistent with Energy Trust's strategic goals of supporting a portfolio of technologies, Energy Trust's solar program opened a competitive solicitation for larger solar projects in Pacific Power territory earlier this year. Sixteen applicants responded with custom solar project proposals. The project presented to the committee is the project for which an incentive funding award is currently recommended by staff. David answered committee members' question on project costs and discussed the evolving solar market. A similar briefing is expected for the full board at its September meeting, with a project funding recommendation.

Brief Updates

Staff provided brief updates to the committee on the status of the Renewable Energy Credit (REC) policy and the large customer docket.

The REC policy proposal was reviewed at the RAC in July, following discussion at the Policy Committee in late June. At that RAC meeting, Portland General Electric and Pacific Power asked for additional time to review, expressing concerns about the revised policy language. Staff met with representatives of both utilities in August and are working to address concerns. Additional discussion is scheduled for the September RAC. After that, staff will return to this committee with an update and possible policy revision recommendation.

Margie briefed the committee on the status of the large customer funding docket. The docket has been held in abeyance through October by the OPUC Administrative Law Judge while stakeholders meet to discuss possible changes to the limit outside of the docket process. Discussions have been productive. Margie will continue to keep the committee and board members informed as the discussions continue.

The meeting adjourned shortly before 5:00 pm. The next meeting of the Policy Committee is scheduled for October 6, 2015.

Tab 5

Strategic Planning Committee Meeting

September 8, 2015, 3:30–5:00 pm

Attending at Energy Trust offices

Mark Kendall, Elaine Prause, JP Batmale Fred Gordon, Debbie Menashe

Attending by teleconference

Susan Brodahl, Ken Canon, John Reynolds, Eddie Sherman

Review of Strategic Planning committee Topics and Report Out Schedule

At the committee’s last meeting, members requested an overview of topics for the coming year, and a proposal on report-out topics for the remainder of the current strategic plan period. Staff presented a proposed schedule for 2015-2016, including key metric areas and report-out timing. The schedule as outlined could serve as the general outline for a schedule of committee topics for future years of the Strategic Plan, so long as key metric areas are still relevant and useful to the committee. Committee members discussed the proposed schedule. With a suggested addition of an update on the strategy to Expand Participation and a description change for the New Opportunities Collaboration topic, the committee expressed their comfort with the following:

Meeting Date	Strategic Plan Metrics/Report-Out Topics
September 8, 2015	Emerging Tech Metrics
October 6, 2015	Brief Update on Expand Participation Baseline Development Key Process Areas Continuous Improvement Metrics
February 2, 2016	Expanding Participation Baseline and Metrics
March 8, 2016	New Opportunities Collaborations Report Out
April 12, 2016	Quantitative Savings and Generation Report Out
May 19-20, 2016	Annual Strategic Planning Workshop

Emerging Tech Metric Proposal

Replenishment of energy efficiency resource through support and development of emerging technologies is a key strategy identified in Energy Trust’s board-adopted 2015-2019 Strategic Plan. The Strategic Plan also calls for establishing metrics to permit the board to track progress against plan goals and certain key strategies. At the meeting, staff outlined proposed metrics for the Strategic Plan’s strategy to replenish energy efficiency resource. For ease of reference, this strategy is referred to as the “emerging tech” strategy. Separate emerging tech strategy metrics were proposed for each of electric efficiency resource and gas efficiency resource. The proposal for gas efficiency emerging tech resource is less quantitative metric and more qualitative progress indicators reflecting the less developed process for bringing new gas technology efficiency measures to market.

Staff proposed the following quantitative metric for electric energy efficiency emerging tech: over the five year period, add efficiency technologies or practices that are proven, and reliable to the combined PGE/PacifiCorp electric resource supply estimates that are at least 63 Average Megawatts (aMW).

The 63 aMW referenced in the proposed metric includes 35 aMW derived from NEEA's five-year strategic plan and Energy Trust's share of NEEA funders' customers and loads; NEEA's "ready for scale-up" resource is expected to amount to 35 aMW of new efficiency resource confirmed between 2015 and 2019. The additional 28aMW of emerging tech is expected from Energy Trust's own activities to replenish the resource, including developing technology and program design pilots.

Because there is considerably less known about gas emerging tech, staff proposed annual progress indicators for gas. These progress indicators are drawn from NEEA's stage-gating process, modified slightly.

Proposed Annual Progress Indicators:

- 2015: Scanning Research and Concept Opportunity Assessment complete for 2 technologies
- 2016: Concept Opportunity Assessment for 3 technologies
- 2016: Supply Curve for gas energy efficiency technologies completed
- 2017: Market and Product Assessment complete for 1 technology
- 2017: 5 additional technologies are in "Scanning"
- 2018: Strategy testing and finalization complete for 1 technology
- 2019: At least 2 technologies are ready for scale-up

Committee members were generally comfortable with the NEEA portion of the numeric electric emerging tech metric and the gas progress indicators. However, there was some concern expressed about the Energy Trust portion of the electric emerging tech metric and the committee discussed whether a number metric is appropriate for Energy Trust's portion of the emerging tech resource to be identified. Discussion ensued whether more process oriented metrics, similar in structure to the proposed gas emerging tech metrics would be more appropriate. Staff suggested that it return to the committee with some more process focused metrics, including an abbreviated report on pilots and quantification of emerging tech from such pilots, to the extent quantifiable. Staff will provide an updated proposal to the committee at its next meeting.

Planning for Strategic Planning Retreat

Staff discussed current planning for the 2016 board strategic planning retreat. Based on a Survey Monkey poll, board members prefer a May retreat date. No strong preference was revealed by the poll for days of the week, but committee members decided to plan for a Thursday-Friday retreat on May 19-20. With this information, Energy Trust staff will begin final planning on a location. Debbie Menashe will contact Nick Viele for facilitation services. Staff will report back to the committee at its next meeting on retreat plans.

The meeting adjourned before 5:00 pm.

The next meeting of the Strategic Planning Committee is scheduled for October 6, 2015.

Tab 6

Renewable Energy Advisory Council Meeting Notes

July 15, 2015

Attending from the council:

Shaun Foster, Portland General Electric
Kari Greer, Pacific Power
Robert Grott, Northwest Environmental
Business Council
Michael O'Brien, Renewable Northwest
Elaine Prause, Oregon Public Utility
Commission
Dick Wanderscheid, Bonneville
Environmental Foundation

Attending from Energy Trust:

Amber Cole
Chris Dearth
Sue Fletcher
Matt Getchell
Jennifer Hall
Mia Hart
Hannah Hacker
Ally Hoffman

Jed Jorgensen
Betsy Kauffman
Dave McClelland
Dave Moldal
Gayle Roughton
Jay Ward
Peter West

Others attending:

Cindy Dolezel, Public Utility Commission
Peter Greenberg, Energy Wise Lighting, Inc.
Pooja Kishore, Pacific Power
Wendy Koelfgen, Clean Energy Works
Lisa Logie, Solar Oregon
Alan Meyer, Energy Trust board
John Reynolds, Energy Trust board
Matt Shane, Oregonians for Renewable
Energy Progress
Ann Siqueland, One Energy

1. Welcome and introductions

Betsy Kauffman convened the meeting at 9:30 a.m. The agenda, notes and presentation materials are available on Energy Trust's website at: www.energytrust.org/About/public-meetings/REACouncil.aspx.

2. Legislative wrap-up

Jay Ward reminded members that Energy Trust does not advocate for or against legislation. We track on legislation that intersects with Energy Trust's work and provide information about our programs and results. Jay provided a summary of energy bills we watched in the 78th Oregon legislative session.

Cindy Dolezel: House Bill 2941 directs the Oregon Public Utility Commission to evaluate solar incentive programs and report to legislature with recommendations for a community solar program design.

Betsy: Will the OPUC make a recommendation?

Cindy: Unknown at this time.

Michael O'Brien: Does HB 2941 build on OPUC Docket UM 1673 to assess the effectiveness of solar programs in Oregon?

Cindy: I'm not sure.

Betsy: Does HB 2987 repeal the requirement that public entities spend 1.5 percent of a new or major renovation contract for a public building on green energy technology?

Jay: No, it does not repeal that requirement. The law removes the requirement if the contracting agency determines that including green energy technology is not appropriate, and describes the process an agency must undertake to arrive at that decision.

Dave Moldal: Was HB 3492 signed into law regarding property tax exemption for solar projects?
Jay: Yes. HB 3492 allows, but does not require, counties where solar projects are sited to enter into an agreement wherein the solar project owner will annually pay an amount equal to \$7,000 per megawatt of nameplate solar generation capacity, in lieu of property taxes.

3. 2016-17 planning and considerations

Betsy presented on several external variables that may lead to changes to our funding allocations and strategy in the 2016 budget. The 2016 budget and action plans will not reflect these external factors.

The transportation package introduced in the 2015-16 legislative session could return in the future. It is unknown whether the Public Purpose Charge will be addressed during discussions of the transportation package.

Pacific Power filed a request with the OPUC to adjust the rules for Qualified Facilities, QFs, projects in Docket UM 1734. Proposed changes include a reduction in the standard contract fixed-price period from 15 years to three years for all QF projects, and a reduction in the eligibility cap for standard QF pricing from 10 megawatts to 100 kilowatts for wind and solar facilities. While UM 1734 is under consideration, Pacific Power filed a request for interim relief to reduce the cap for solar and wind QF projects from 10 MW to 3 MW. QF projects represent about half of our generation portfolio thus far and if the filing is approved by the OPUC, it would have a significant impact on a project's ability to acquire financing.

Alan Meyer: What's the rationale for the public?

Betsy: In the filing, Pacific Power said it is inundated with QF projects applying for power purchase agreements. It also said that a 15-year power purchase contract is inconsistent with its usual methods of purchasing power.

Michael: As part of Docket UM 1610, Pacific Power proposed less stringent changes to the QF rules and the OPUC did not approve those proposed changes. Under that rationale, our perspective is that the OPUC would not approve a new, stricter set of rules.

Betsy: The Solar Investment Tax Credit, ITC, is expiring at the end of 2016 for residential solar projects and will be reduced to 10 percent for commercial solar projects. The state's Residential Energy Tax Credit for Solar, RETC, is expiring at end of 2017. The expiration of the tax credits has been part of our budget planning process and will be reflected in the 2016-17 budget.

Energy Trust has been tracking national trends related to policy changes surrounding net metering in other states. If net metering is altered in Oregon, it would increase the above-market cost of net-metered projects to some extent.

Alan: Would changes to Oregon's net metering policy impact Renewable Energy Certificate, REC, allocation?

Shaun Foster: Some jurisdictions are phasing out net metering. RECs may be handled differently under a "buy-all, sell-all" metering policy such as a value-of-solar tariff.

Peter West: Shaun, what are tax implications of a “buy-all, sell-all” approach to solar? Would the incentive be taxable?

Shaun: This is still being vetted. Regardless, PGE would not provide tax advice. With the current feed-in-tariff pilot that kicked off, PricewaterhouseCoopers’ opinion is that the sale of energy is equivalent to the sale of merchandise, and therefore would not be reportable.

4. Draft changes to the Renewable Energy Certificate policy

Jed Jorgensen provided a summary of proposed amendments to the Renewable Energy Certificate, REC, policy.

Jed: The first amendment would allow Energy Trust to not register RECs in the Western Renewable Energy Generation Information System, WREGIS, when the board concludes the REC market price, cost and effort is disproportionate to the value of a REC.

Shaun: PGE had some concerns about the amendments. Ratepayers should receive value back from Energy Trust’s investments in projects. Since the only value of Energy Trust’s RECs for utilities is Renewable Portfolio Standard, RPS, compliance, voluntary market prices may not be the best way to measure the value for ratepayers. If the utility doesn’t have Energy Trust’s RECs, what is the cost to be in compliance?

Peter: Can we know that number? The cost of future RPS compliance could be easier to calculate than the REC market.

Shaun: It’s hard to calculate the REC value since the market fluctuates. It’s possible to assign a cost, but I’ve never seen one.

Pooja Kishore: The resource value of solar could be a good comparison.

Peter: Does RPS have a penalty?

Jed: Yes, the penalty is \$50 per megawatt hour if the utility is not in compliance.

Shaun expressed concern about the timing of the REC policy changes going to the board at the end of July and suggested waiting longer to allow time for Renewable Energy Advisory Council members and their organizations to examine the proposed changes in more detail.

Elaine: I like the avoided cost idea. On the list of pros for the first amendment, add in the cost-effectiveness aspect for ratepayers.

Jed: The second amendment calls for policy coordination between Energy Trust and utility green power programs by reducing our share of RECs to the extent that a utility retains RECs.

Elaine: I see one downside regarding the second amendment. With voluntary projects like Clean Wind or Pacific Power Blue SkySM, we are willing to take fewer compliance RECs so that the voluntary programs can be made whole. This is small in the scheme of things, but there would be fewer RECs towards compliance than there would have otherwise been.

The third amendment allows owners of custom projects to keep RECs to meet environmental goals if the owner provides substitute RECs that meet certain requirements. The utility is not limited in its use of RECs for QF projects, and they are treated as a bundled REC for compliance.

Michael: Why is this intentionally limited to Oregon QFs for replacement RECs?

Jed: RECs from Oregon QFs can be used as bundled RECs under the RPS without any limit to the number that are used, therefore they are more useful for RPS compliance purposes.

Shaun: If we limit the amount of RECs, it could drive us to negotiate against ourselves.

Jed: We're trying to avoid that with this policy proposal, which is restricted to project owners that would use the RECs to meet green goals. If the owner's goal is to sell RECs, they're not eligible. Contractually they cannot sell the RECs under this proposal

Dick Wanderscheid: The devil is in the details with green goals. It's better to claim that they are using solar energy.

Jed: One goal would be making green claims. The purpose is that they are using the RECs for themselves, not selling them.

Cindy: I would suggest looking at a company's strategic plan to make sure their green goals are official, either in their Corporate Social Responsibility plan or a municipal star rating, for example.

Jed: The fourth amendment consists of rewriting the REC policy and make clarifying edits. We will circulate the proposed language for review and present it to the board after July.

5. Q2 update and results

Betsy provided an update on generation results for Q1 and Q2 2015.

Betsy: Large renewable energy projects in the pipeline and installed generation have put us on track to exceed generation goals for PGE and Pacific Power. In 2015, we expect to continue seeing a strong solar market. We are evaluating applications for two competitive bidding processes for one Solar and one Other Renewables project. During budget presentations to the council, both competitive projects will be reflected in the budget, in addition to a cash carryover to cover activity related to coming ITC expiration.

Peter: 350 solar projects are committed through this year. How many more do you expect?

Dave McClelland: Another 500 solar projects with an estimated total of 1,000 projects installed in PGE service territory. In Pacific Power service territory, about 700 solar projects are expected to complete.

Kari Greer: What's in the pipeline for 2016?

Betsy: There are several large solar projects in the pipeline. A large portion of that generation will come from the Old Mill solar project that came out of Pacific Power's RFP to meet its capacity requirements.

Elaine: In the other renewables RFP, was the same amount of funding allocated for PGE and Pacific Power?

Betsy: \$3 million was allocated for PGE and \$5 million was allocated for Pacific Power.

John: Where does this place us in the three-year rolling average benchmark?

Betsy: That is no longer a PUC benchmark for Energy Trust. There are new benchmarks, including a solar benchmark to achieve 85 percent of the budgeted goal for standard solar. We are currently at 55 percent of goal and on track to exceed that benchmark. For non-solar custom projects, the PUC benchmark is a three-year rolling average of incentive dollars per REC, which we will also meet. The last benchmark is to report on large-scale solar projects.

6. Public comment

There was no additional public comment.

7. Meeting adjournment

The meeting adjourned at 11:15 a.m. The next Renewable Energy Advisory Council meeting is scheduled on September 9, 2015.

Conservation Advisory Council Meeting Notes



July 15, 2015

Attending from the council:

Jim Abrahamson, Cascade Natural Gas
Warren Cook, Oregon Department of
Energy
Julia Harper, Northwest Energy Efficiency
Alliance
Garrett Harris, Portland General Electric
Scott Inman, Oregon Remodelers
Association
Don Jones, Jr., Pacific Power
Don MacOdrum, Home Performance Guild
of Oregon
Holly Meyer, NW Natural
Elaine Prause, Oregon Public Utility
Commission
Stan Price, Northwest Energy Efficiency
Council

Attending from Energy Trust:

Tom Beverly
Nicole Brown
Shelly Carlton
Amber Cole
Kim Crossman
Mike Feely
Sue Fletcher

Fred Gordon

Ally Hoffman
Susan Jamison
Marshall Johnson
Susan Jowaiszas
Adam Shick
Jay Ward
Peter West
Mark Wyman

Others attending:

Jeremy Anderson, WISE
Susan Brodahl, Energy Trust Board
Christina Cabrales, Conservation Services
Group
Scot Davidson, Clean Energy Works
Alicia Dodd, Ecova
Mark Duty, Rogers Machinery
Sara Fredrickson, CLEAResult
Cameron Gallagher, Nexant
Alan Meyer, Energy Trust board
Barbara Moday, Pacific Power
John Molnar, Rogers Machinery
Tom Phillips, Honeywell
Greg Stiles, Ecova

1. Welcome and introductions

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

2. Old business

The council approved June meeting notes without comments or changes.

3. Preliminary results through Q2

Peter West presented Q2 dashboards, which show a snapshot of Energy Trust's savings by sector through June 30, 2015.

Peter: We are on track with expectations this time of year. We are forecasting that we will achieve 94 percent of goal in Portland General Electric territory, 103 percent of goal in Pacific Power territory, 117 percent of goal in NW Natural territory and 111 percent of goal in Cascade Natural Gas territory. These are unofficial and unaudited results.

For commercial gas-only projects in NW Natural territory, we believe we may be setting the overall incentive level too low. We saw strong performance from industrial customers in gas territories. Savings from Strategic Energy Management is strong, as well. Results so far indicate positive trends for the rest of the year.

We have spent more on incentives than we budgeted, but we have plenty of reserves to spend if the trend continues. Much of the higher spending rate is attributed to New Buildings, with projects completed sooner than expected as mild weather accelerated construction. We forecast using no more than 20 percent of reserves in 2015.

Savings from Northwest Energy Efficiency Alliance are not included in these numbers. They are on a different reporting cycle. NEEA has a gas initiative, but we don't expect savings in 2015. NEEA savings are on track as far as we know.

Don Jones: Are the mid-year goals for contractors resulting in savings?

Peter: We are close to those goals. Market strategies and contract terms are helping us achieve more savings earlier in the year. These may also be creating extra momentum to exceed goals.

4. Legislative update

Jay Ward, senior community outreach manager, provided an overview of legislative activity from the past session. Energy Trust tracks and reports on a wide variety of energy issues and responds to many information requests. Energy Trust does not lobby or take positions on legislative issues.

Warren Cook: To clarify, HB 2281 would have redirected funding from school districts, not from the Oregon Department of Energy.

5. My Business Marketing campaign

Susan Jowaiszas provided an update on the My Business marketing campaign.

Susan Jowaiszas: This is our first, and by far largest, business-to-business marketing effort. My Business uses lighting as a hook to engage business customers, especially smaller businesses. LEDs are still incredibly cool but now more affordable to more businesses.

Using traditional marketing channels including TV and radio, the campaign directs viewers to a special campaign website that promotes trade allies. The site has a customer side and trade ally side. It features our TV spot. The approach that has proven effective is to focus on success stories. We have featured a number of successful customer stories from all over our service territory.

Holly Meyer: What is the box in the picture?

Susan Jowaiszas: It's a sampler box with an explanatory sheet on top. It includes trinkets and items from successful customers. It includes an LED light, a press release about adoption of LEDs and more info about success stories.

Shelly Carlton: The customers are getting involved, too. Grand Central Baking and Stanley's will provide items for the boxes.

Susan Jowaiszas: We are also using social media to support the campaign. We encouraged trade allies to engage through cooperative marketing and co-branded ads. We provided marketing support for small companies through a user's guide and general instruction. A number of trade allies participated with us. One of them will have 2.7 million impressions. We will look at data and do evaluation for trade ally engagement. We see this as something we can potentially offer longer term.

Alan Meyer: Seems like you could see spillover from business to homes. Will the evaluation look at that? The thought is that you may get residential results that come from this.

Holly: This looks fantastic to me.

Scott Inman: What's the cost to Energy Trust?

Shelly: We built this for use over two to three years, so costs are amortized over that period. Creative was a little over \$100,000. The ad buy was \$190,000. From that we got 10,000 visits. That's less than \$20 per visit to the site.

Susan Jowaiszas: We are watching activity trends also.

Don MacOdrum: Coming from the residential perspective with CLEAResult, we are exploring creative ways of marketing. This is a great way to leverage trade allies. Kudos to the group.

6. Residential Sector 2015-2019 Strategic Plan

Peter: Last fall, we finished our 2015-2019 Strategic Plan for the entire organization. This residential sector strategic plan, as with the ones you reviewed for the commercial and industrial sectors, is designed to make sure there aren't any anomalies or contradictions between the organization's overall direction and sector goals, and to make the plans real so we can incorporate them into our budget planning process. We start thinking about budgets this month.

Thad Roth, residential sector lead, presented on the residential strategic plan.

Thad: The current residential program model has been very successful. The residential sector provides about one-third of the organization's savings. Challenges require changes to how we implement the program. The residential plan is based on resource assessments from our Planning team that indicate lighting and water heating will provide savings in the future. New construction is relevant, particularly on the gas side. We have dabbled in behavioral change and think there's more opportunity.

Alan Meyer: What are whole homes?

Marshall Johnson: A package of new construction improvements above the code baseline.

Mark Wyman: We also track individual improvements for New Homes.

Don MacOdrum: It seems that there's six or seven times the potential for savings through residential weatherization than what's already been acquired. That's not what I've heard.

Marshall: This is only for electric and doesn't tell where the resources lie. They could be in rentals and low-income situations, also.

Mark: Savings potential may also be with new window tiers and other measures that aren't available in the market now.

Marshall: Cost-effectiveness limits us. It looks like costs will be greater than benefits for weatherization measures as the efficiency baseline increases, but there are still some savings.

Adam Shick: This shows only the cost-effective savings potential.

Fred Gordon: We currently offer ductless heat pumps under a time-limited exception. We are quantifying the costs and savings and considering alternative strategies to see if we can get the cost-effectiveness ratio above one.

Garrett Harris: What kind of baseline and code update assumptions are we making?

Adam: We are looking at the current technology and taking federal standards that we expect in the future into account.

Thad: What about controls?

Adam: For lighting, some multifamily common area controls are included in the resource assessment. That's the extent of the controls.

Susan Brodahl: Only one line refers to new homes. Are the rest existing single-family homes?

Adam: New Homes shows packages, but we can also do standalone measures. We limit the New Homes package measures based on limiting both stacks and combining.

Thad: We still need to deliver these offerings in a more cost-effective way. With weatherization, we've already seen the impacts of cost-effectiveness challenges. We will have more of a sense of how effective we can be later this year. Behavioral offerings will continue to be an opportunity, but we need to continue evaluating that.

We have engaged 440,000 residences so far. Looking at the map, we have served between one-quarter and one-third of the potential in our service territories.

Don MacOdrum: What counts as serving the customer?

Adam: We either provided an incentive or they saved energy.

Marshall: Energy Saver Kits and appliances are the highest volume measures.

Adam: A Home Energy Review would count as well, but the customer didn't pay for it.

Fred: We reach the most residential customer through retail lighting, which we currently can't map by geography.

Thad: Low avoided costs are a big challenge and require us to rethink our delivery models. Driving costs down and supply chains are areas of focus. Measure saturation is another area of focus. Lighting was two-thirds of our 2014 electric savings. We have fewer measures than we did five or six years ago. We have urgency in developing new measures. Will need more discipline in how we develop things. We are partnering more with regional efforts like NEEA. We are looking at behavior changes. We'll consider more opportunities to integrate with other things that aren't traditionally in the energy sector. Home automation is a great example. We've expanded participation, but are faced with the challenge of how to expand our geographic reach more cheaply.

Holly: The slides show gas savings, but low avoided costs and measure saturation. Are the gas slides based on what's hopefully cost-effective if we figure things out?

Thad: Some savings for new homes come from cost-effectiveness exceptions. We need to address those exceptions and improve delivery costs to capture those savings.

Adam: New construction and water heater replacements aren't yet available but will start coming up.

Mark: Cost-effectiveness is a spectrum. Incentives and uptake can sometimes drop. We've mitigated with appliances.

Holly: It's surprising to see so much weatherization potential when cost-effectiveness is hard to crack. The slide shows cost-effective savings, but that doesn't jive with what we know about measure being hardly cost-effective.

Marshall: You are balancing out a number of savings categories. For water heating, where there is a clear supply chain, you may be able to influence the supply chain at lower costs than compared to weatherization. Retrofits are more costly to facilitate and collect information about. There are fewer dollars and volumes won't be as large.

Elaine Prause: There is a lot of resource potential for windows compared to wall and ceiling insulation. It depends where the potential is focused.

Scott Inman: Every window that is now failing from 20 years ago is counted based on the incremental savings above code. Maybe insulation was up to a higher standard based on code for a while.

Fred: Windows offer a lot of savings but may be on a 50- to 100-year cycle for replacement. Contractors may persuade people to replace things they wouldn't otherwise replace, but given the limited incentive Energy Trust can cost-effectively offer, we can only persuade them to buy a better window when they are already buying windows.

Peter: I see the point of the comments. The data is not fully representative. We'll need to add more detail to the next draft. If you assume a lot of new incoming technology, it confuses things. We have measure saturation for weatherization but with windows you assume new technology. The potential is different.

Warren Cook: Maybe extend out the graph to show what happens in the future if we continue doing things the same way.

Thad: We think we need to refocus our design, contracting and delivery around technologies instead of market channels. This would allow for a more holistic pursuit of technologies. Heating systems are in all homes, but we can focus on the technology instead of whether the technology is in new or existing homes. That's a key change in our thinking.

We are seeing duplication of services in our contracts and there are opportunities to reduce redundancies between our Program Management Contractors. We will continue pilots to drive new measure opportunities and work with NEEA and others to develop new measures. We will move upstream with some strategies, such as appliances. We can work with suppliers. It may mean more interaction with distributors or manufacturers and less focus on consumers.

We will have to develop new, lower-cost opportunities to reach new customers and re-engage with past customers. We may need to develop relationships with new market actors. For example, Nest has motivated customers to replace their thermostats for reasons other than energy savings.

Alan: Would that mean that there isn't a New Homes or Existing Homes program? There would be lighting or water heating programs instead?

Mark: Water heating is a big part of our future. Water heating is worked on through Existing Homes, but it's not part of the Products program. There are New Homes opportunities as well, but the different PMCs aren't communicating with each other.

Alan: What would that look like if it was perfected?

Mark: We are looking at engaging the supply chain instead.

Scot Davidson: Do you assume a static regulatory environment? Interest in carbon and transportation will increase. That will have an impact on our work.

Mark: Being nimble is a priority. Change will come and we know what some of it will be. We have not been nimble enough to reorient our strategies.

Thad: Focusing on the cost of delivery give will us a better chance of reducing impacts of risks. In a carbon-constrained environment, these investments are more attractive.

Warren: We are enthused about restructuring programs around technology. Contractors and suppliers have overlap. Water heaters don't know what house they will go into.

Elaine: The idea of mitigating shrinking savings made the NEEA discussion rise to the top. It was helpful to talk about the potential of weatherization. I agree that seeing the savings potential of windows compared to insulation helped. I'm surprised behavior didn't rise.

Marshall: We see behavioral measures as a savings channel to explore. We are a utility intermediary, and residential behavior has a utility component. We need the right level of collaboration with utilities.

Mark: Where does behavior end and controls optimization begin?

Don Jones: If you put all of your eggs in the behavior basket, you present some risk to the infrastructure necessary to have a broader portfolio.

Alan: We were excited about the first bullet. It's time to do things differently as things change.

Don MacOdrum: It's a dynamic environment and building nimbleness is very important.

Mark: We see opportunities for market leaders. Maybe there's an opportunity to work more closely with industry leaders.

Marshall: What if there was a combined application process for Energy Trust incentives and tax credits with the Oregon Department of Energy? We both impact the same customers. That's a great example of how channels can be leveraged.

Holly: This feels like pre-strategic planning. There's directionality to it, but it's not ready to execute. I'm curious about next steps.

Kim Crossman: Our annual budget and action plans will help make next steps more clear. The rubber hits the road in those action plans. You'll see the first look at the budget in October. Comments today have an effect on what shows up in those plans.

Thad: There is work to be done to make these ideas more concrete. We want your participation. These are challenging questions, and we're open to receiving help.

Mark: Next year won't look that different, but you will see more changes showing up. You will see more technology-focused approaches.

Susan Brodahl: Expanding customer participation includes extra costs. What will we see in the budget to address this?

Marshall: We plan to leverage market actors that already exist.

Susan Brodahl: I wouldn't want to constrain expanded customer participation. It will cost more. We need to keep that in mind.

Thad: It's a challenge that we recognize. We think we have strategic solutions.

Susan Brodahl: I don't want to be too hard on expanding participation by making cost paramount.

Peter: We're under a cost-effective requirement for whole programs. It doesn't mean that everybody in every sector has to be treated the same. To expand participation, we are going to

focus more expense in some areas. But we also have to get savings to hit a benefit/cost ratio of one. We are challenged not to do it the way we have in the past.

Stan Price: It's clear that there is concern and need for improvement in the PMC structure. I couldn't get the directional intent of how to reform that. Is that an open question?

Marshall: The residential sector has a precedent of using the PMC model. However, Energy Trust uses Program Delivery Contractors in other sectors. There are opportunities for different channels. Potentially there are actors who can contribute value that we're not including right now. PMCs are engaging those actors, but we think there is a more coordinated way to structure this.

Mark: The two aren't mutually exclusive. Our challenge is to get innovators with niche expertise while unleashing the ability of our PMCs. Our solicitations shape the sorting rules and programs. We need to start asking different questions and posing different challenges. You'll see us eliminate redundancies and open space up for different ways to engage consumers.

Peter: If the next five years are characterized by different ways of going to market, do we have the structure today to do it? We don't think so. The more you go upstream, the more you need a different kind of approach.

Stan: How will we see those decisions play out as you make them?

Peter: You'll see it in annual plans and RFPs.

Holly: How long are the current PMC contracts?

Marshall: The Existing Homes PMC contract is through 2017 and the Products contract is through 2019, both with optional extensions. These are maximum contract lengths, so there is flexibility to adjust the current contract structures.

Julia Harper: We've had conversations that could synergize in the mid-stream space. We have a growing number of good programs but not the resources to execute them. There are opportunities for partnering with others organizations.

Holly: Your ideas about innovation and ways of working with various stakeholders, beyond PMCs, doesn't seem to show up in the plan.

Mark: This is the first pass to engage stakeholders and get their thoughts on going this direction. We didn't want to presume the outcomes.

Holly: It sounds like you are saying this needs to be more of a collaborative process. Maybe the collaborative approach is how you are going to determine the specifics?

Kim: That's more the process than the content. It's the how. There will be conversations here at Conservation Advisory Council meetings that are part of the process. There was a lot of stakeholder involvement from early on as we developed our first programs.

Jeremy Anderson: These are very vague generalities so it's hard to give a reaction. We'll be able to comment more as things become more specific.

Fred: We are doing work this year to learn more about who isn't participating in what. Our participation in residential programs is robust, but participation is lower outside the Portland metro area. What's the supply chain out there? What are the barriers and reasons for lesser participation outside the metro area? We are trying to look at that more closely.

Sara Fredrickson: This is an exciting change. Something major does need to happen and this is great to hear.

Julia: We've been working on regional market strategies with NEEA's Regional Portfolio Advisory Committee. Fred has been involved in commercial lighting. We are doing initial work on consumer products this year. Some of you can have opportunities to think about this and how we address some of these things.

7. Public Comment

There were no additional comments.

8. Meeting adjournment

The meeting adjourned at 4:00 p.m. **The next scheduled meeting of the Conservation Advisory Council will be on September 9, 2015, from 1:30 p.m. – 5:00 p.m.**

Tab 7

Briefing Paper

Market Indicators Report

September 21, 2015

The purpose of this report is to track and assess changes in key economic indicators in an attempt to gain a better understanding of how demand for Energy Trust programs will respond to changing market dynamics. By monitoring the behavior of several widely used macro-level indicators we hope to stay closely attuned to changing economic conditions, thereby providing Energy Trust program managers with the ability to respond to changes accordingly.

Eight months into 2015, we continue to assess the progress of the economic recovery approximately 5-6 years after the great recession. The economic recovery appears to be taking hold across the nation and in Oregon. Many economic indicators are back near pre-recession levels. For the first time since 1996,¹ Oregon's unemployment rate actually dipped below the US average from March to April, dropping to a low of 5.2% in April. This was an exceptional low, considering just months earlier in December 2014 Oregon was at 6.7%. While these numbers bounced back up a bit in the summer as many re-enter the job search, as of August, the national rate is at 5.3% and Oregon is at 5.9%. Both the Oregon Employment Department and University of Oregon Economic Forum are projecting continued growth and recovery through 2015.

On September 17 and 18 the U.S. Federal Reserve held its two day policy meeting. They announced they would not be raising interest rates. Despite U.S. job growth, the lack of inflationary pressure in the U.S. economy along with the sluggish global economy led the Federal Reserve to decide to wait until the next policy meeting before announcing any rate increases.

To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that the current 0 to 1/4 percent target range for the federal funds rate remains appropriate. In determining how long to maintain this target range, the Committee will assess progress--both realized and expected--toward its objectives of maximum employment and 2 percent inflation. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee anticipates that it will be appropriate to raise the target range for the federal funds rate when it has seen some further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term.²

¹http://www.oregonlive.com/money/index.ssf/2015/04/oregon_unemployment_rate_slides_below_us_average_for_first_time_since_1996.html

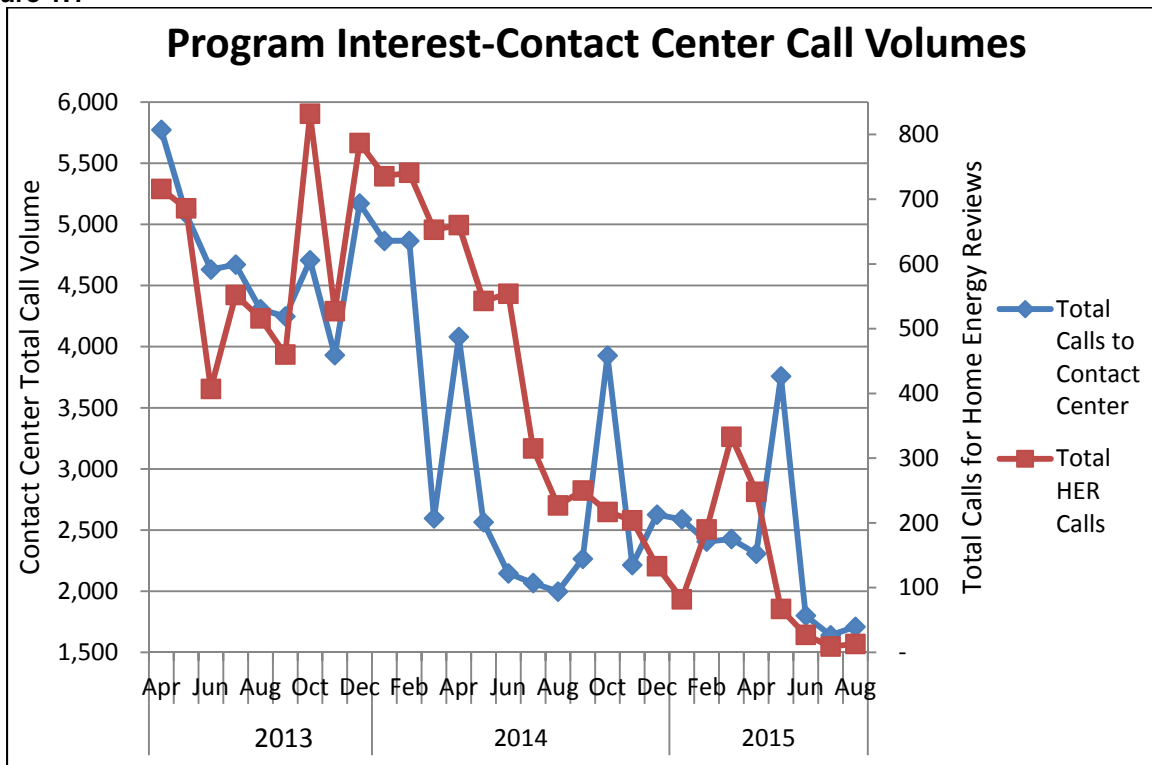
² <http://www.federalreserve.gov/newsevents/press/monetary/20150917a.htm>

Some commentators believe this decision reflects Federal Reserve Chair Janet Yellen’s continued desire to support job and income growth.³

1.1 Energy Trust Programmatic Indicators

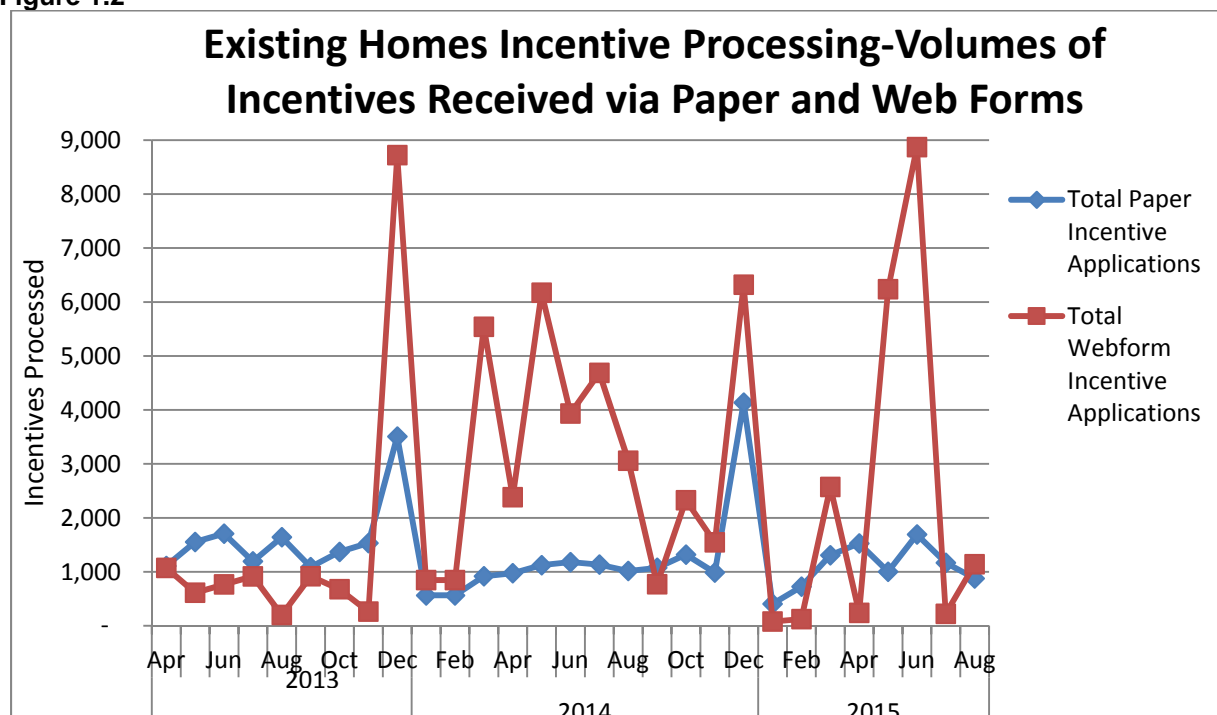
Activity in Energy Trust’s Existing Homes program is presented here in Figure 1.1 as a general indicator of overall Energy Trust program awareness. There is a noticeable downward trend in the overall total number of calls in 2015 compared to 2013 and 2014. This is due to several reasons. ClearResult formerly provided call-center support to Clean Energy Works Oregon (CEWO), and no longer does. Additionally, On January 1st, 2015 all language referencing Home Energy Reviews (HERs) was removed from Energy Trust’s website, and were discontinued after March, 2015. The number of HER calls decreased steadily in 2015, with the exception of a spike in March, likely a product of customers requesting the HER service before it was gone. Lastly, reductions in calls are due to Energy Trust process improvements. Staff and contractors have worked hard to reduce customer follow-up calls. Energy Trust continues to expand the use of online webforms and other web resources that combine to provide alternate methods of contact and interaction with Energy Trust.

Figure 1.1



³ <http://www.newyorker.com/news/john-cassidy/janet-yellen-and-the-fed-did-the-right-thing>

Figure 1.2



The tale of paper vs web form processed incentives has been rewritten over the last two years, as evidenced by Figure 1.2 above. While the number of paper form processed incentives has remained relatively consistent, the number of web form processed incentives has greatly increased in 2014-2015. The large spikes can be attributed to ESK pushes and other marketing campaigns. Following up from the example of call center volume noted for May in Figure 1.1, there is a spike in webform applications in May and June that are primarily associated with the same ESK campaign. In 2013, 52% of incentives were web processed, while in 2014 the percent of web form-processed applications is 72%. Thus far, 8 months into 2015, 69% of applications have been web processed.

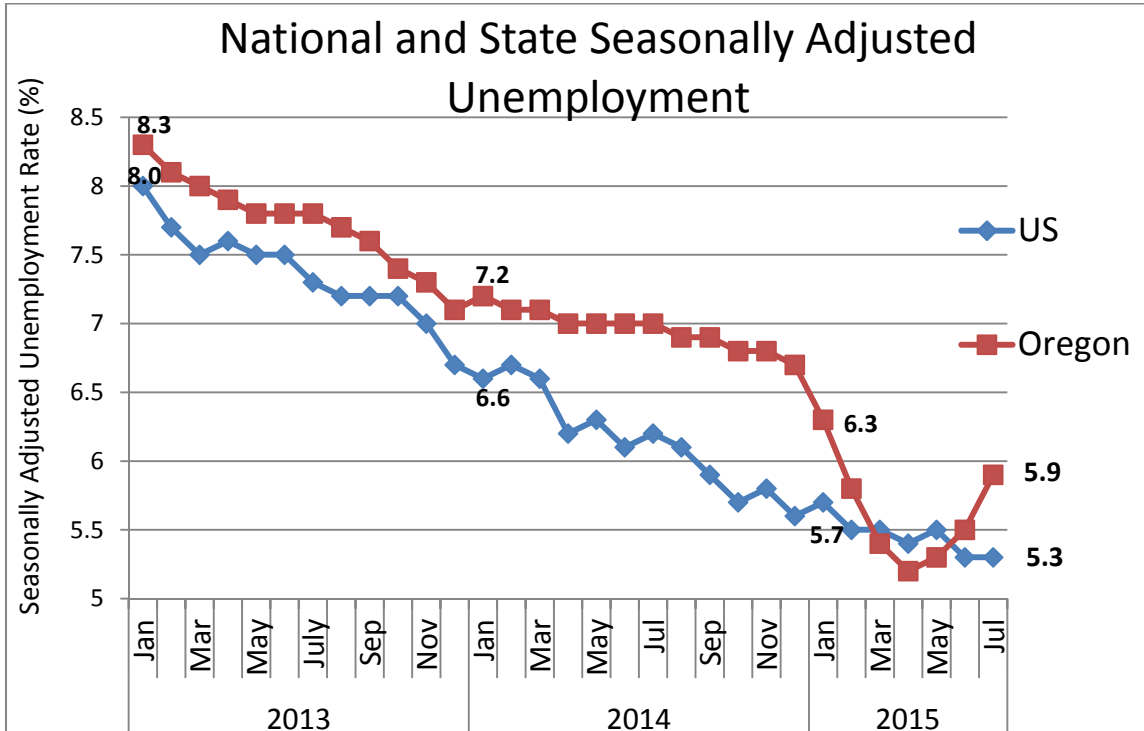
2.1 Macroeconomic Indicators

Oregon unemployment figures for 2015 have exceeded optimistic forecasts from late 2014 with the rate plummeting from 6.7% in December of 2014 to a low of 5.2% in April, though the number has rebounded back to 5.9% in the last few months. The rate, which is based primarily on data from the Current Population Survey, can be volatile at times.

“Oregon’s job growth continued at a rapid pace in July,” said Nick Beleiciks, Oregon’s state employment economist. “We’re also seeing a large number of people entering the labor market or who are leaving their jobs voluntarily. They account for about half the increase in unemployment. Oregon’s economy is adding jobs so fast right now that many of them will find work quickly.”⁴

⁴ <http://oregonemployment.blogspot.com/>

Figure 2.1

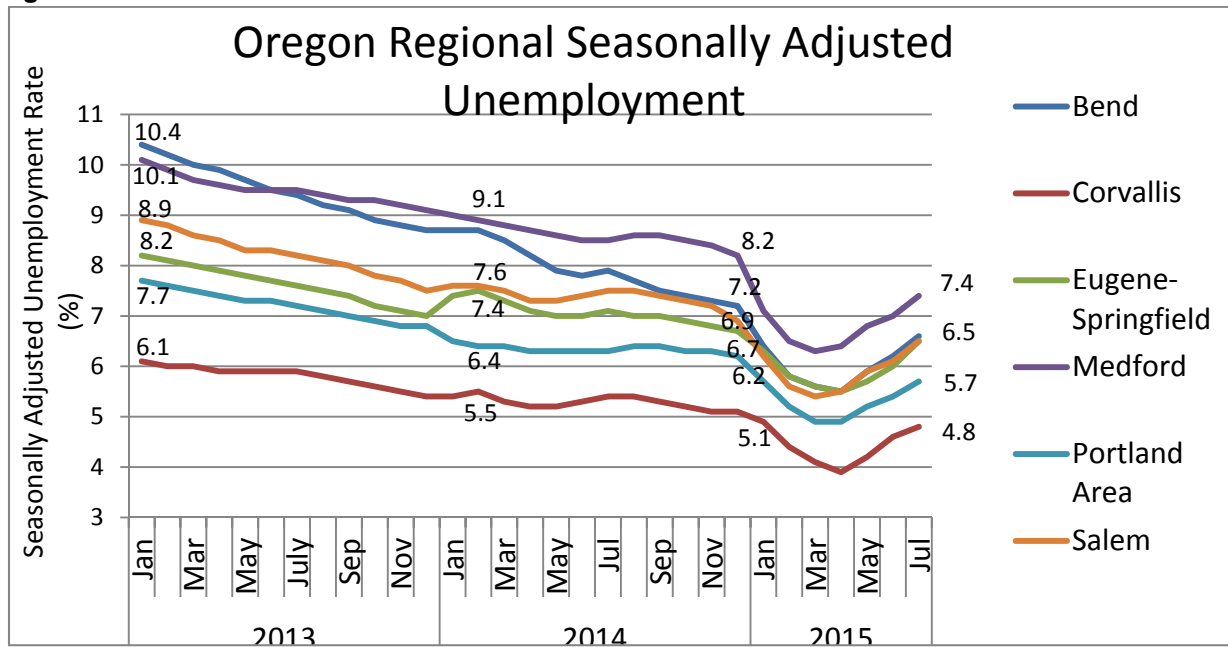


Unemployment numbers are complicated though, and there are numerous factors to consider. As written in the Oregonian, “It has been a growth year for Oregon, much like the rest of the United States. The state has gained 55,900 jobs in the past year, expanding at a rate of 3.2 percent. Still, traces of the recession remain. Among the most prominent is the labor force participation rate, which edged down again in July by a tenth of a percentage point, to 60.2 percent. That means two in five Oregon adults are neither working nor looking for jobs. Though it's partly caused by the first wave of baby boomer retirements, the recession accelerated the trend by shutting many others out of the workforce. Another recession trace is still visible in pay. When the job market looked bleak during the recession and the years that immediately followed, employers were able to keep payroll costs static. That balance may be shifting in workers' favor as more jobs open up”.⁵

Taking a closer look at regional unemployment trends (Figure 2.2) shows similarity to the statewide numbers across all of Oregon’s largest regional centers, with rapid decrease in the first half of the year and the uptick in the last few months. The Central and Southern (Bend/Medford) areas continue to have the highest unemployment rate in the state, as they historically have, but Salem and Eugene match Bend’s rate slightly more closely in 2015.

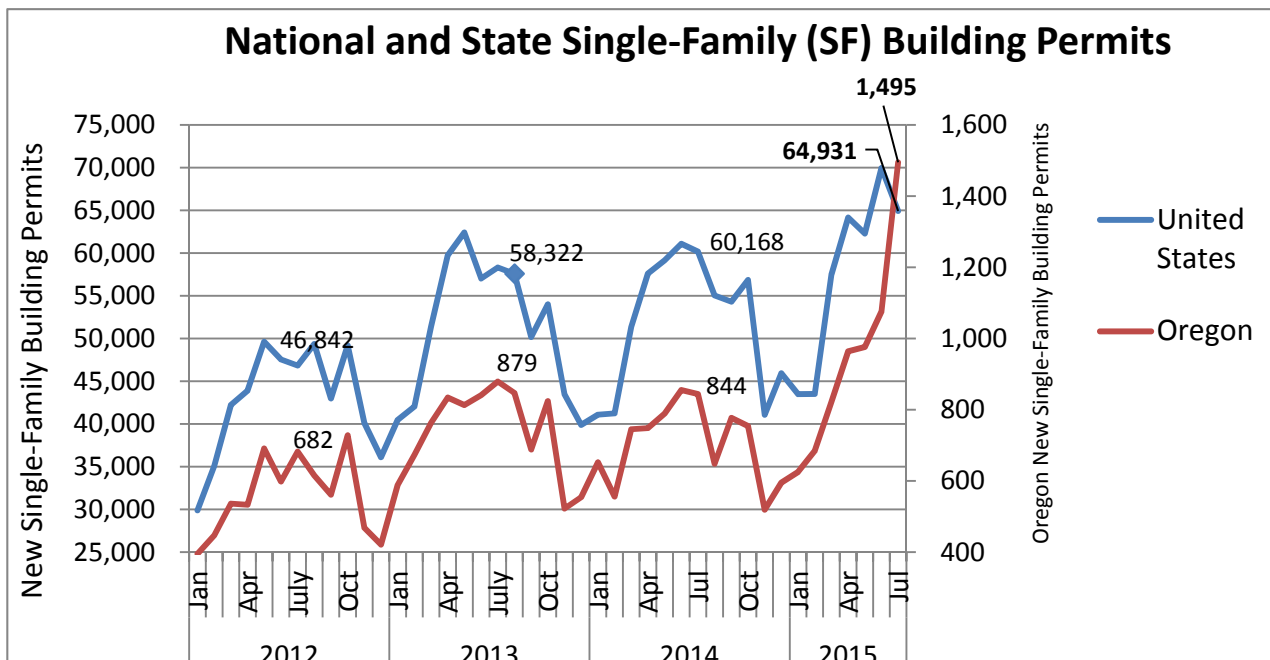
⁵http://www.oregonlive.com/money/index.ssf/2015/08/oregon_unemployment_rate_spikes_as_more_people_search_for_work.html

Figure 2.2



The construction industry currently accounts for over 5% of all jobs in Oregon.⁶ Construction was hit hard during the recession. In 2013 the industry showed big gains and improvement over 2012 as Oregon continued to closely follow US building trends. The first half of 2015 appears to be on pace to drastically outstrip previous years. Permit levels have increased 77% when comparing numbers from July of 2014 and 2015, expanding faster than the national average (Figure 2.3).

Figure 2.3



⁶ <https://www.qualityinfo.org/-/oregon-jobs-in-2014-a-wage-data-perspective>

Similar to the statewide vs. National permit numbers shown in Figure 2.3, Figure 2.4 indicates similar numbers and trends by season between 2013 and 2014, with large visible increases in 2015. The Portland metro and Bend areas show the strongest growth in construction permits in 2015, while Eugene-Springfield, Salem and Corvallis, are still at rates similar to past years. Figure 2.5 below shows the steady upward trend of construction spending and home sales occurring in the US over the last few years, with a marked uptick in 2015, reflecting both the national and regional trends that show economic growth accelerating in the last year.

Figure 2.4

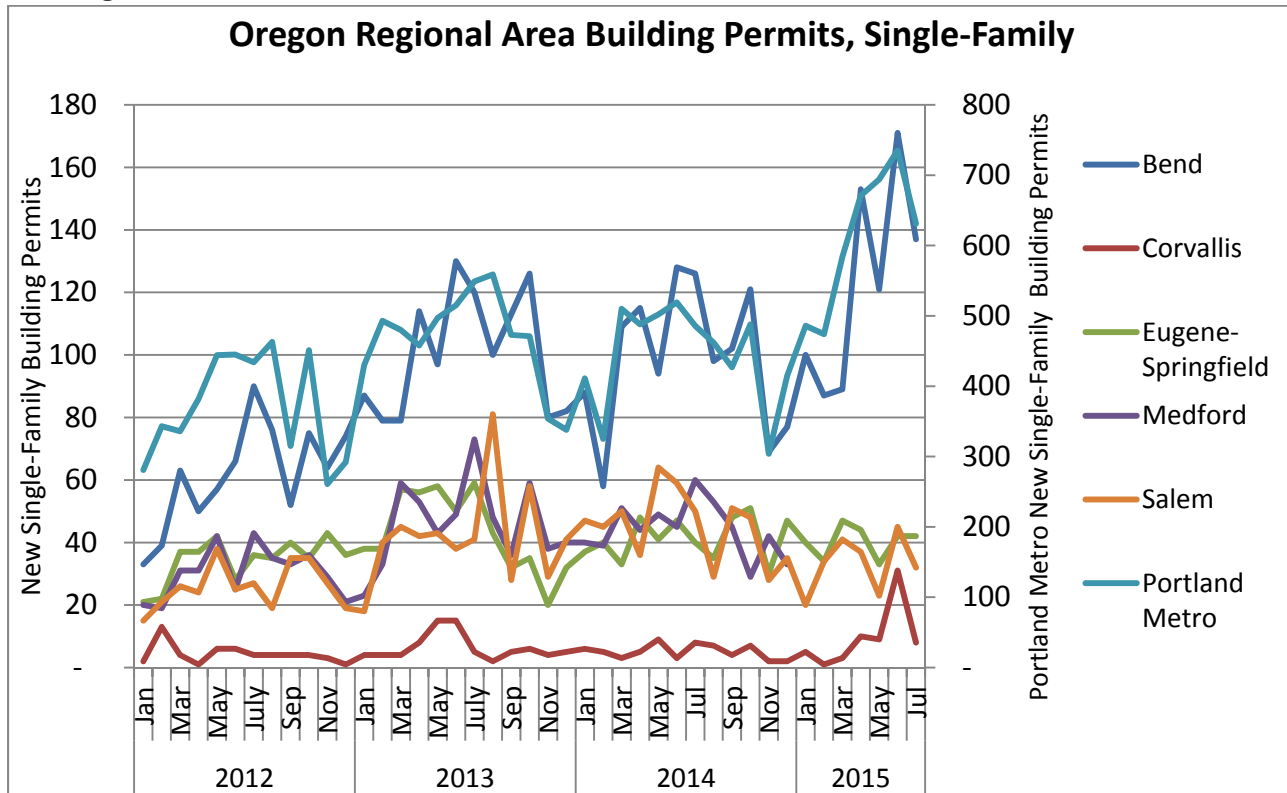


Figure 2.5

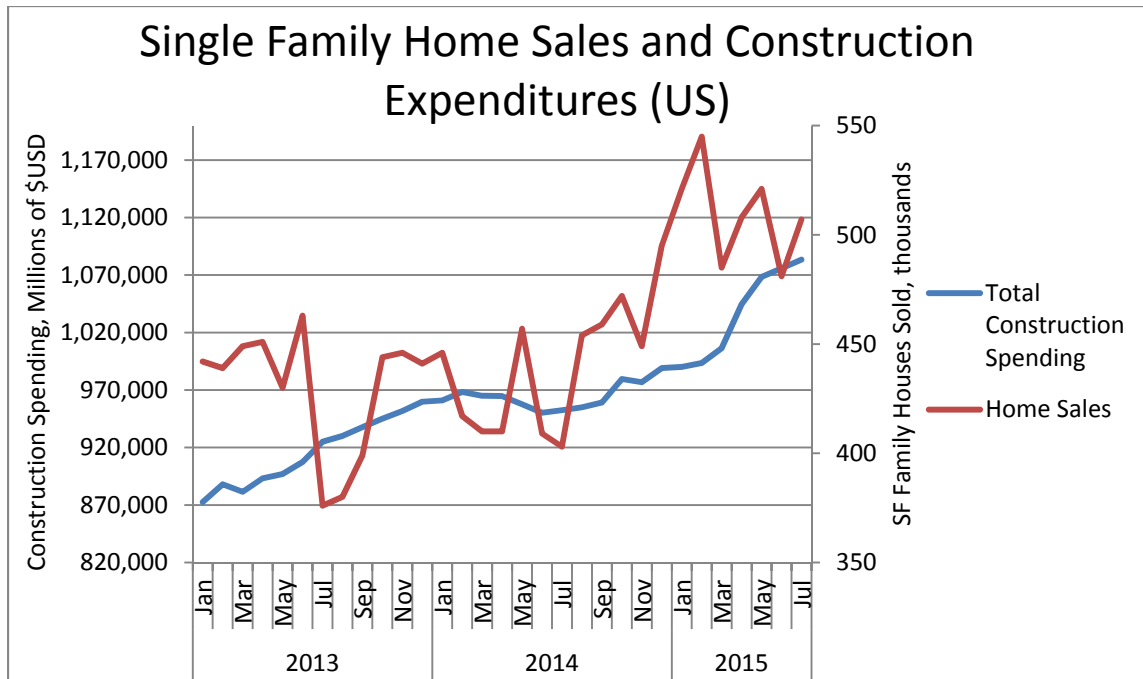


Figure 2.6

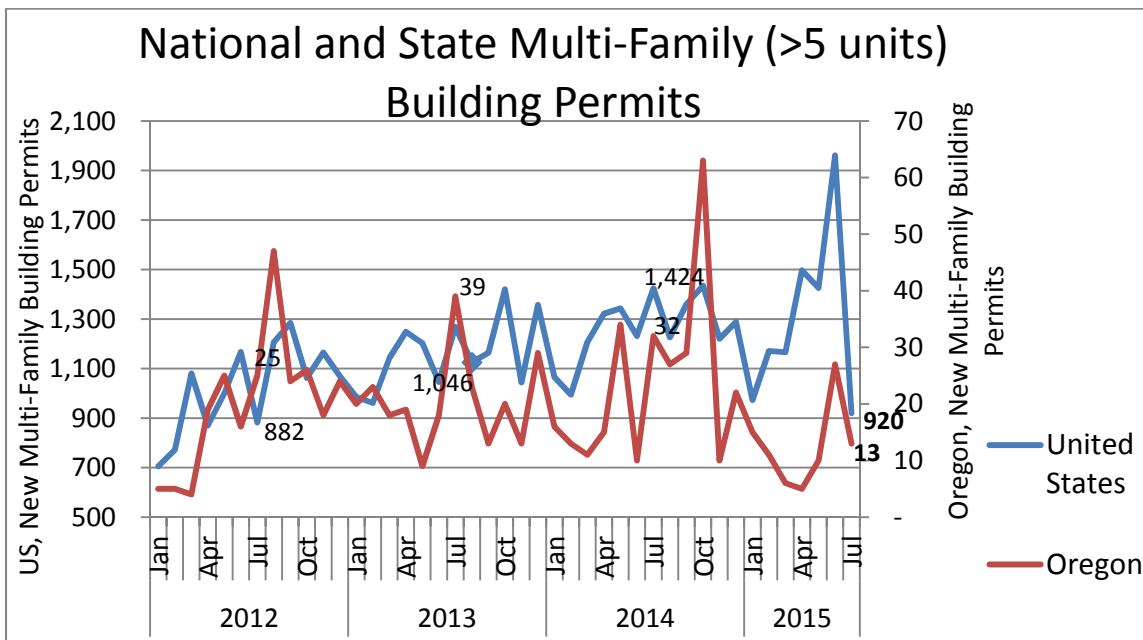
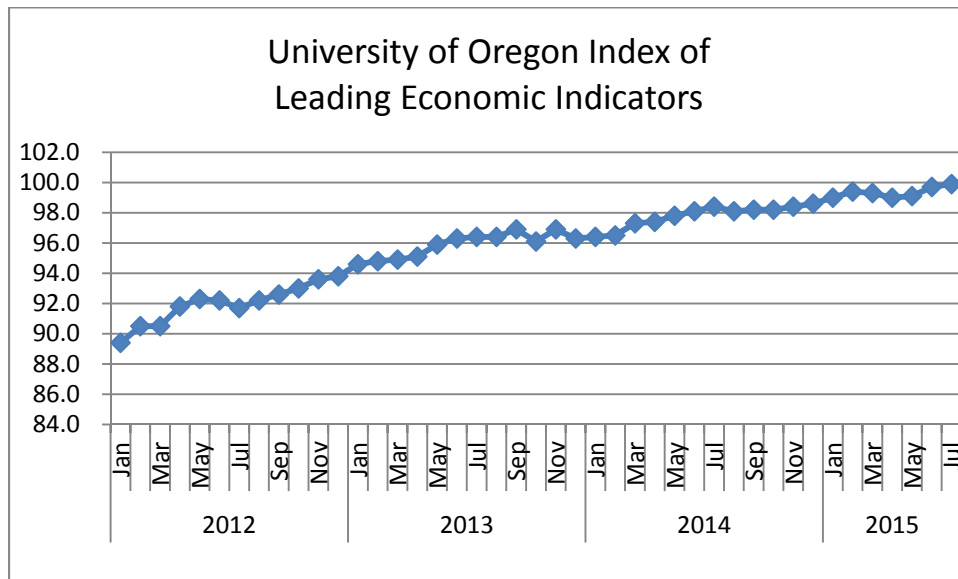


Figure 2.6 delves into the multi-family housing sector. The above graph depicts the number of permits issued in the US and Oregon for structures with 5 units or more. This market can often reflect more regional demographic trends as well as economic growth. Additionally, given the lead time between permitting and construction of large buildings and the lower volume of buildings compared to single-family residences, greater volatility can be expected in this graph. Overall, this graph shows increasing numbers of buildings being permitted over the last several years, though permitting has slowed in the first half of 2015 after the tremendous spike in October of 2014. Overall though, the combination of greater employment and faster than

average population growth, especially in the Portland Metro area, is reflected in the increases of housing stock shown in these graphs.

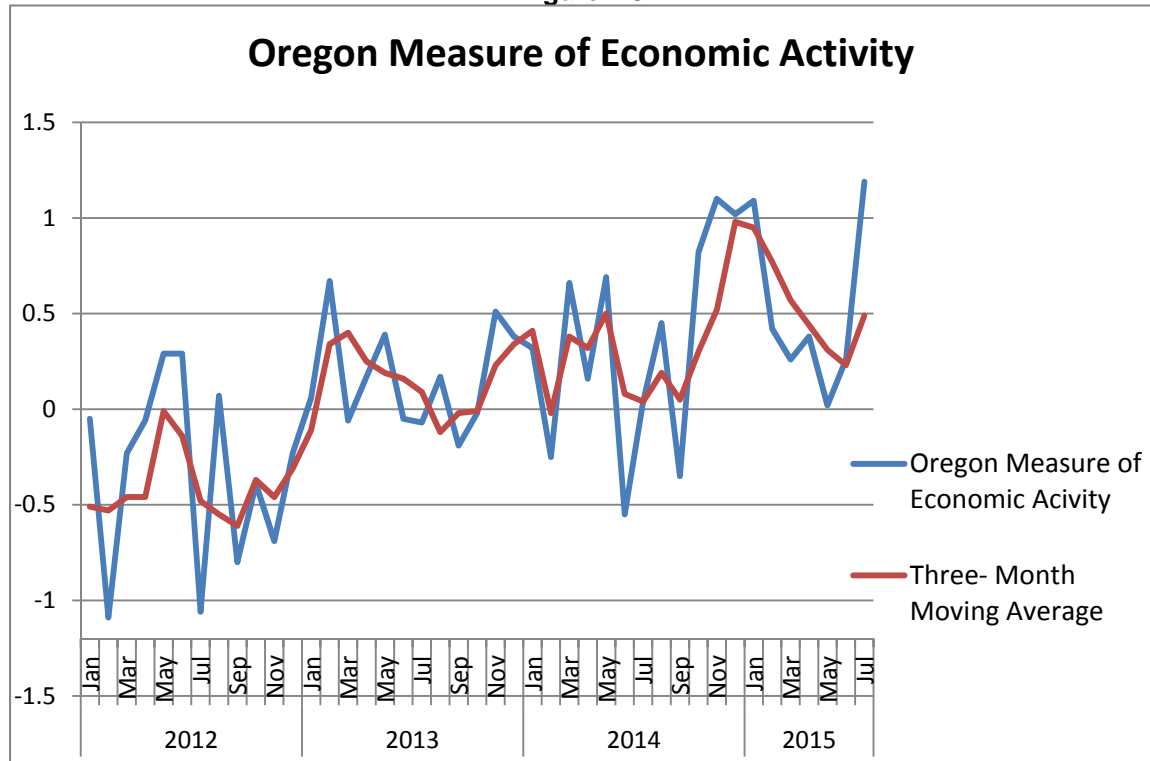
Figure 2.7



The University Of Oregon Index Of Economic Indicators rose 0.2 percent in July, the fourth consecutive month of gains. Most components improved during the month. Initial unemployment claims fell back to their lowest level since March, maintaining a range consistent with solid job growth. Employment services payrolls—mostly temporary help workers—rose, continuing a slow upward trend. Residential building permits slipped and, while much higher compared to the low points of the most recent recession, remain weak compared to past recoveries. The Oregon weight distance tax (a measure of trucking activity), manufacturing orders (a national indicator), and average weekly hours worked in the manufacturing all gained during the month, indicating that the goods producing sector of the economy remains solid. Consumer sentiment numbers softened but remain at levels consistent with solid demand from households.⁷

⁷ <http://econforum.uoregon.edu/files/2015/09/newindexjul15-1hiekn.pdf>

Figure 2.8

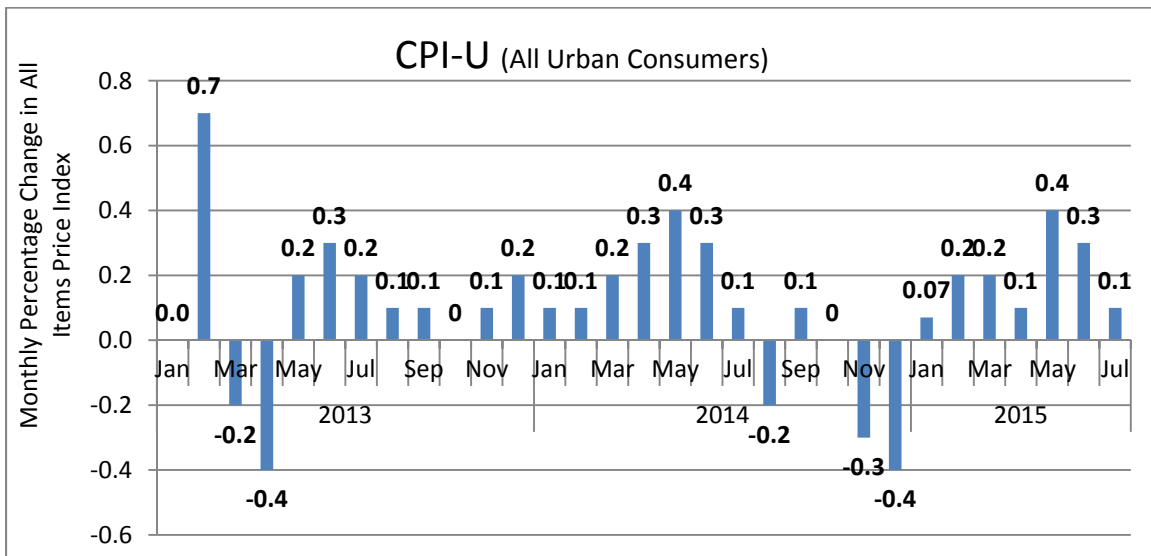


The Oregon Measure of Economic Activity rebounded in July, primarily due to solid employment numbers after slipping through the first half of 2015. The three-month moving average, which smooths month to month volatility in the measure, is 0.49, where 'zero' indicates the average growth rate over the 1990-present period.

According to the Oregon Economic Forum, "Average weekly hours worked boosted the manufacturing contribution into positive territory. Within the construction sector, residential building permits made a slightly negative contribution to the measure while a solid month for employment bolstered the sector. Consistent with recent trends, low levels of initial unemployment claims, a low unemployment rate, and above-average consumer sentiment all supported the household sector. Strong job gains in the underlying service sector employment components supported a very strong overall contribution to the measure. The two indicators suggest ongoing growth in Oregon at an above average pace of activity. The ongoing U.S. economic expansion provides sufficient support to expect that Oregon's economy will continue to grow for the foreseeable future".⁸

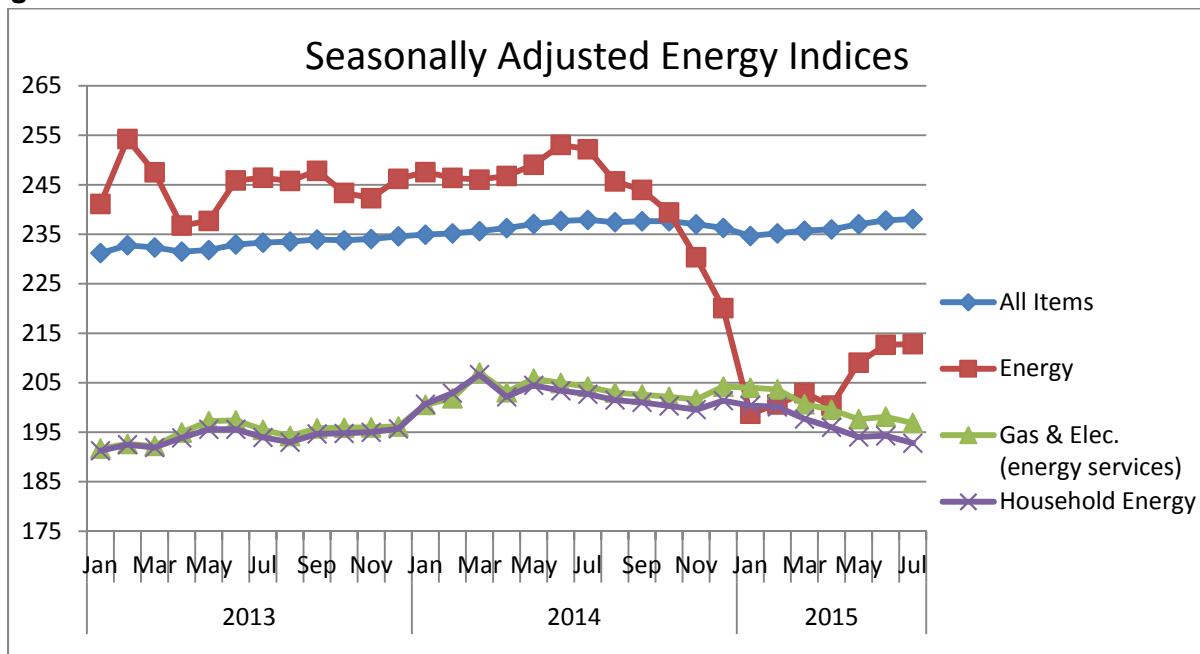
⁸ <http://econforum.uoregon.edu/files/2015/09/newindexjul15-1hiekn.pdf>

Figure 2.9



The following information the Consumer Price Index for All Urban Consumers (CPI-U) increased 0.1 percent in July on a seasonally adjusted basis. The energy index rose 0.1 percent as an increase in the gasoline index more than offset declines in other energy component indexes. Over the last 12 months ending in July, the all items index rose 0.2 percent before seasonal adjustment. The all items index increased 0.2 percent for the 12 months ending July. The energy services index, which includes electricity and piped gas service, decreased 3.7 percent in the last 12 months.⁹

Figure 2.10



⁹ <http://www.bls.gov/cpi/cpid1507.pdf>

The energy index edged up 0.1 percent in July after a 1.7 percent increase in June. The gasoline index increased for the third consecutive month, rising 0.9 percent. The other major energy component indexes declined in July. The index for natural gas fell 1.4 percent after rising in June. The electricity index fell 0.4 percent, its third decline in the last 5 months. The fuel oil index decreased 3.4 percent following a 1.9-percent decline in June. All major energy components have declined over the past 12 months. The fuel oil index has posted the largest decline, falling 29.7 percent, and the gasoline index has decreased 22.3 percent. The index for natural gas has fallen 14.2 percent and the electricity index has declined 0.7 percent.¹⁰

Institute of Supply Management Report on Business

According to the July, 2014 Manufacturing Report on Business from the Institute of Supply Management, economic activity in the nation's manufacturing sector expanded in August for the 32nd consecutive month, and the overall economy grew for the 75th consecutive month. Of the 18 manufacturing industries, 10 are reporting growth in August. Industry respondents from 4 of the major manufacturing industries in Oregon provided statements on recent economic conditions. A representative of the 'Computer & Electronic Products' industry stated, "FX [Foreign Exchange] continues to be a challenge, especially in Europe. Overall though, the mood is fairly upbeat regarding H2 [second half of 2015] as we ramp up for a new product launch." A representative of the 'Fabricated Metal Products' industry stated, "Our business is good due to the increase in commercial construction." A representative from the 'Wood Products' industry stated, "Business is guarded but steady. Margins are tight. Markets are very competitive. China is lackluster." A representative of the 'Paper Products' industry, simply states, "We are oversold."¹¹

3.1 Utility Roundup and Rate Cases

Natural Gas - Northwest Natural Gas Co.

Oregon

Only recently during the writing of this report, on Sept. 15, 2015, NW Natural filed a request with the Oregon Public Utility Commission (PUC) for a 6.9 percent reduction in residential rates. If the reduction is approved by the PUC, the average homeowner will pay about \$4.24 less per month. The company also requested a 7.6 percent reduction for businesses, which would result in \$17.97 less per month for the average commercial customer. The proposed rates would take effect November 1.¹²

¹⁰ <http://www.bls.gov/cpi/cpid1507.pdf>

¹¹ http://ism.files.cms-plus.com/ISMReport/Mfg_Aug_15.pdf

¹² <https://www.nwnatural.com/AboutNWNatural/RatesAndRegulations/GasPriceInformation>

Washington

While Energy Trust administers programs only in SW Washington, its worth noting that on Sept. 11, 2015, NW Natural filed a request with the Washington Utilities and Transportation Commission (WUTC) for a 14.4 percent reduction in residential rates. If approved by the WUTC, the average homeowner will pay about \$9.46 less per month. The company also requested a 15.2 percent reduction for businesses, which would result in about \$40 less per month for the average commercial customer. The proposed rates would take effect November 1.

A note detailing the difference in reductions between the two states was detailed on NWN's web page: The main reason for the different reductions is because of different rate structures in the two states, and in Oregon the rates reflect recovery of environmental clean-up costs related to legacy manufactured gas plant operations that are not applicable in Washington.¹³

Natural Gas – Cascade Natural Gas Co.

News posted on Cascade Natural Gas Corporation's web page announced that it has filed a Purchased Gas Adjustment (PGA) with the Oregon Public Utility Commission to reflect the decrease in pipeline capacity, reservation and storage for natural gas. The request, which also includes the end of a year-long refund, means an approximately 7.1 percent decrease for Cascade customers in Oregon. Residential customers using 56 therms a month can expect a decrease of \$3.56 on average per month, or approximately \$43 for a 12-month period. A commercial customer using an average of 236 therms a month can expect a decrease of \$14.92 per month or approximately \$179 for a 12-month period. CNG explains that a PGA is a mechanism designed to pass the actual costs of gas supplies to customers and that it is very common for the company to either under or over collect through the year as the natural gas market changes throughout the year, and the actual purchase price often differs from the projected price. The proposed rate increase is expected to go into effect on Nov. 1, 2015, upon PUC approval.¹⁴

Natural gas prices

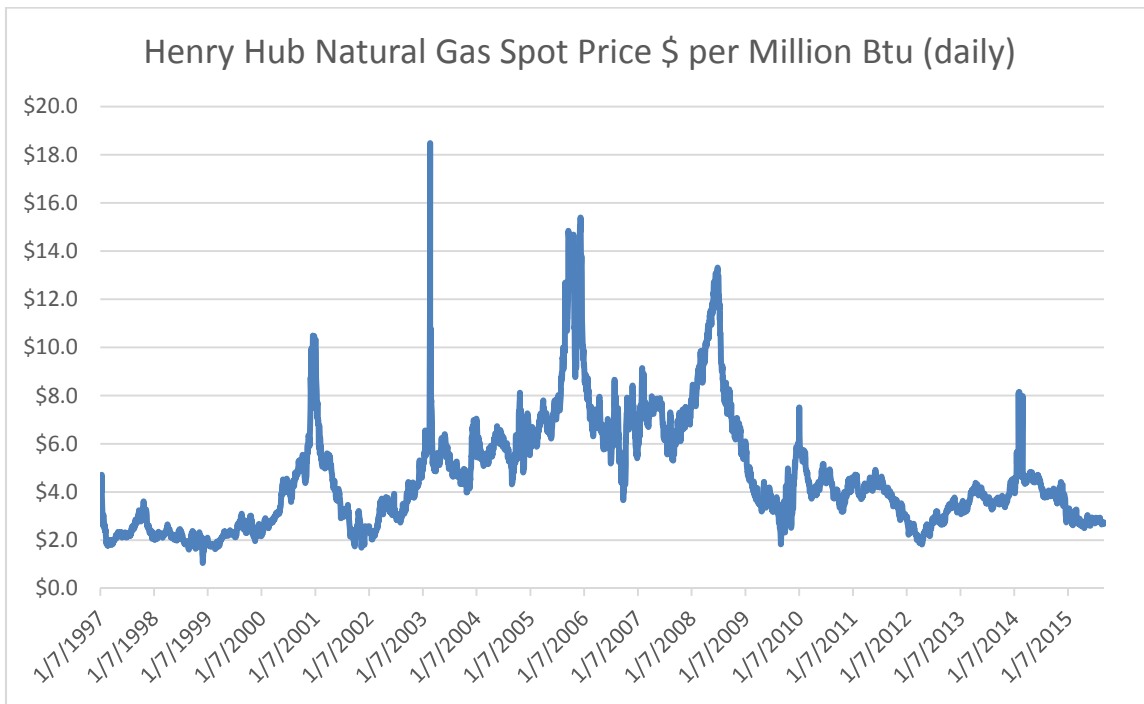
Figure 3.1 below is the complete daily historic price of Henry Hub Natural Gas Spot Market Price (\$/MMBtu), from Jan, 7 1997 to September 8, 2015 and exhibits the volatility of this fuel over the years and seasons. The price has remained at or below \$3/MMBtu since May of this year.¹⁵

¹³ <https://www.nwnatural.com/AboutNWNatural/RatesAndRegulations/GasPriceInformation>

¹⁴ <http://www.cngc.com/utility-navigation/news>

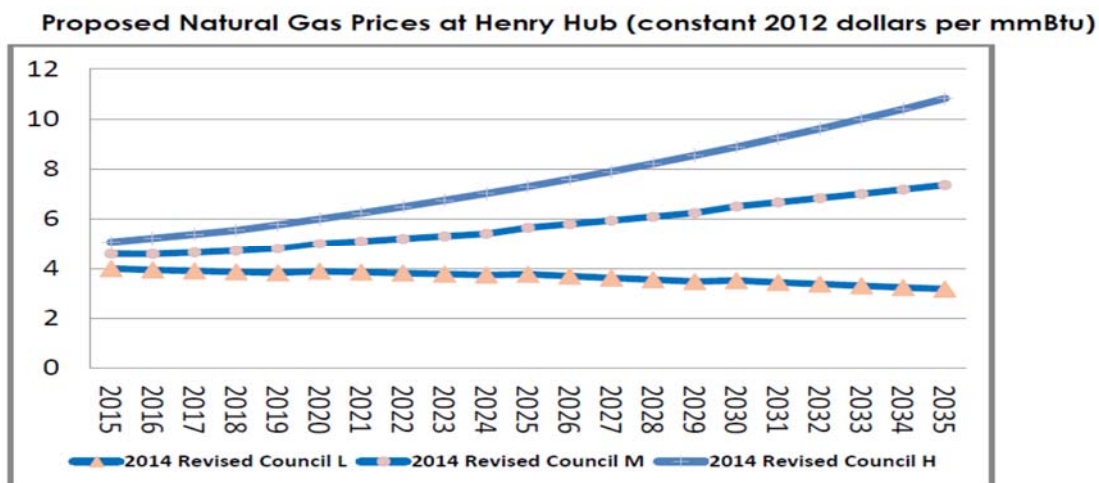
¹⁵ <http://www.eia.gov/dnav/ng/hist/rngwhhdd.htm>

Figure 3.1



The Northwest Power and Conservation Council states “the natural gas price forecast is the most important fuel forecast for the plan”, lower gas prices will mean lower electricity prices. Since the Power Council’s issued its forecast for gas prices between \$3-5 per mMBtu in July, 2014, gas prices have continued to slide lower, hovering around the ‘low case’ of analysts forecast of \$3.00/MMBtu. At the time of this report, the Henry Hub price is \$2.67/MMBtu. Figure 3.2 is taken from the Power Council’s ‘Revised Fuel Price Forecasts for the Seventh Power Plan’, published in July, 2014. It forecasts a ‘low’, ‘mid’ and ‘high’ case for expected natural gas prices over the next 20 years.¹⁶

Figure 3.2



¹⁶ <http://www.nwcouncil.org/media/7113626/Council-FuelPriceForecast-2014.pdf>

Electricity - PGE

On Dec. 05, 2014, The Oregon Public Utility Commission announced approval of overall price changes for Portland General Electric of about 1 percent beginning in January 2015. A typical residential customer, who uses an average of 840 kilowatt hours per month, will see an average monthly bill increase of about 78 cents, from \$98.71 to \$99.49. The commission's action is the culmination of a 10-month public review process, a general rate case, with active participation by customer advocates and other stakeholders, as well as representatives from PGE. The rate case was filed in February 2014, primarily to reflect the anticipated completion of two new power plants. OPUC staff and stakeholders were able to reach agreement with PGE on all major issues in the rate case and filed a settlement in September that the three-member, governor-appointed commission ratified.

The 267-megawatt Tucannon River Wind Farm, near Dayton, Wash., is currently online and serving customers at the time of this report. Tucannon River will help PGE fulfill an Oregon mandate to serve at least 15 percent of its customers' demand for power with qualifying renewable generating resources by 2015. The 220-megawatt Port Westward Unit 2 facility, near Clatskanie is also online and serving customers at the time of this report. Port Westward Unit 2 is a flexible capacity generating plant with 12 natural gas-fueled reciprocating engines that can be operated as needed, individually or in combination, and will help PGE balance the variable output from wind and solar facilities while also meeting customer needs during peak demand periods.¹⁷

Pacific Power

The earliest effective date for Pacific Power's next general rate case will be January 1, 2016. The parties may file for deferrals, but agree their goal is to minimize rate changes during this period.¹⁸ However, on September 14, 2015, Pacific Power announced that eligible Pacific Power customers in Oregon will see an overall average decrease of 3.1 percent due to adjustments to the Residential Exchange Program. The average Oregon residential customer using 900 kilowatt hours per month will see monthly bills go down an additional \$4.22. For the average residential customer, the total credit from the Residential Exchange Program will be \$9.35 per month, which includes the additional \$4.22 as well as the average \$5.13 credit that was already in place. Eligible small agricultural customers will see a total credit of 0.768 cents per kilowatt hour. The new credit levels will take effect Oct. 1 if approved by the Oregon Public Utilities Commission and be effective until the end of 2017.

The Residential Exchange Program, while complex, is at its heart recognition of how the power grid of the Northwest is interconnected and interdependent--all with the goal of providing reliable and affordable electricity to the region." Created by the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) in 1980, the Residential Exchange Program is a mechanism designed to equitably spread the benefits of the federally owned power system among the region's residential and small-farm customers of investor-owned and

¹⁷https://www.portlandgeneral.com/our_company/news_issues/news_releases/12_05_2014_OPUC_approves_pge_p_rice.aspx

¹⁸ <http://apps.puc.state.or.us/orders/2013ords/13-474.pdf>

consumer-owned utilities. The credit level is adjusted every few years whenever the Bonneville Power Administration finalizes a rate case for its customers.¹⁹

In May 2015 PacifiCorp filed an application to reduce the terms and eligibility cap of standard-offer contracts for renewable qualifying facilities (QF) under the public Utility Regulatory Policies Act (PURPA). In Oregon PURPA contracts run 15 years and have an eligibility cap of 10 MW. Pacific Power would like to reduce the contract term to only three years and initially asked that the eligibility cap be reduced to 100 kW. On July 9, 2015 PacifiCorp filed a motion for interim relief to reduce the standard contract eligibility threshold for **solar** to 3MW pending final resolution. The Oregon Public Utility Commission granted this on Aug. 14, 2015.

4.1 Around the State

Portland and Surrounding Areas

Airbnb will add a software engineering team at its Portland office and is currently hiring. *Portland Business Journal 09/04/2015*

Rohst Coffee Co. opened in Milwaukie. *Clackamas Review 09/09/2015*

River Retreat Inc. Adult Foster Care opened in West Linn. *Lake Oswego Review 09/03/2015*

Marthas, a café and bar, will open inside Revolution Hall, a music venue in southeast Portland. *Eater Portland 09/02/2015*

BPM Real Estate Group will break ground in early 2016 on a 20-story mixed use tower near the South Park Blocks in downtown Portland. It will include offices and a 170-room hotel. *Portland Business Journal 08/24/2015*

Custom Fab Inc., a pipe manufacturer in St. Helens, was acquired by Birmingham, Alabama based U.S. Pipe. The new company, U.S. Custom Fab, plans to double the size and capacity of the facility and add employees. *The South County Spotlight 08/14/2015*

New Seasons Market opened at the Slabtown Marketplace in northwest Portland. It employs 138 people. *Portland Business Journal 08/05/2015*

Whole Foods will open a new concept store called 365 Everyday Value at the Oswego Village shopping center in Lake Oswego. *The Oregonian 07/30/2015*

Capital One will close its Tigard call center by the end of the year and lay off 890 people. *Portland Business Journal 07/27/2015*

¹⁹ <https://www.pacificpower.net/about/nr/nr2015/regional-power-credit.html>

The Housing Authority of Washington County, Pedcor Investments, and other partner agencies broke ground on the Sunset View Apartments, a 236-unit \$51-million affordable housing complex, in Beaverton. *Beaverton Valley Times 07/15/2015*

Gerber Gear, a knife, tool, and outdoor gear manufacturer in Tigard, will add about 20 to 30 workers over the next year after receiving tax incentives for joining the city's Enterprise Zone. *The Times 07/09/2015*

The Oregon Health Authority will lay off 31 people and reduce its contract staff by 350 positions over the next two years as part of a reorganization. It will affect employees based in Salem and Portland. *The Oregonian 07/08/2015*

Developer Core Spaces LLC plans to build a mixed-use residential and retail development in downtown Portland that will include 425 apartments and a grocery store. *Portland Business Journal 06/16/2015*

Oregon Coast

Front Street Marine will build a cold storage and fish-buying facility on Newport's bayfront. It will replace the Undersea Gardens museum, which is closing. *News-Times 09/11/2015*

Garibaldi Leasing and Development Inc. began construction on an 18-unit, two-story apartment complex in Garibaldi. *Headlight-Herald 08/03/2015*

Sea Breeze Bakery & Café opened in Depoe Bay. It is noted for its large portions, including a four-pound cinnamon roll. *News-Times 07/29/2015*

Pelican Brewing Co. will open a brewpub in Cannon Beach in the spring. It will employ 40 to 50 people and about 60 to 70 during peak season. *The Daily Astorian 07/23/2015*

Central Lincoln PUD will close its Toledo office and the staff will be transferred to its Newport facility. *News-Times 07/03/2015*

The Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians opened Three Rivers Casino Coos Bay. It employs 90 people and will increase to about 110. *Bandon Western World 06/11/2015*

Willamette Valley

Royal Caribbean International plans to add 220 people at its Springfield call center by the end of the year. *The Register-Guard 08/27/2015*

Groundbreaking took place in Lebanon for Linn-Benton Community College's new \$16 million health occupations center. The 40,000-square-foot facility will be constructed on the Samaritan Health Sciences campus. *Corvallis Gazette-Times 08/26/2015*

Marquis Companies will build an \$11.6 million post-acute rehabilitation center in Salem. It will employ 250 people during construction and 70 upon completion. *Portland Business Journal 08/18/2015*

Haggen will close two stores in Klamath Falls, and one in Keizer, Tualatin, and northeast Grants Pass in October, laying off 331 people. *Statesman Journal 08/14/2015*

The Freedom Foundation, a libertarian think tank based in Washington state, opened an office in Salem. *Statesman Journal 08/13/2015*

The City of Eugene sold a downtown building to the University of Oregon for \$1. The University will spend \$3 million to renovate it for the RAIN business accelerator, Department of Product Design, and Tyler Invention Greenhouse. *The Register-Guard 08/11/2015*

Samaritan Lebanon Community Hospital began a \$13 million expansion and remodeling project that will include 21 emergency rooms, two operating rooms, and 14 same-day surgery rooms. *Lebanon Express 08/06/2015*

VIP Hospitality Group and InterContinental Hotels plan to build a four-story, 110-room EVEN Hotel near Autzen Stadium in Eugene. It will cater to wellness-minded guests, offering healthy eating options and fitness opportunities. *The Register-Guard 07/31/2015*

Yogi Tea will build a \$12 million production facility in west Eugene that will consolidate three existing sites in Eugene and Springfield. It plans to add five workers by the end of the year and 30 to 40 between 2016 and 2018. *The Register-Guard 07/08/2015*

Eastern Oregon

Hill Meat Co. in Pendleton is expanding its pork processing plant and may add 30 workers. *East Oregonian 08/21/2015*

Comfort Inn & Suites in Hermiston is undergoing an expansion that will add 35 rooms. It will also add five to 10 workers. *The Hermiston Herald 08/11/2015*

Idaho-based Fry Foods will reopen the Select Onion processing facility in Ontario. It will employ about 330 people, of which about 60 percent will be low-income local residents. It also expects to hire 100 construction-related workers to renovate the factory. *The Oregonian 07/30/2015*

A 93-room Holiday Inn Express will open in Hermiston in July. *East Oregonian 07/23/2015*

Willamette Valley Vineyards located near Turner will open Pambrun Vineyard in Milton-Freewater. *East Oregonian 06/04/2015*

Central Oregon/Columbia Gorge

Facebook will break ground on a third data center in Prineville in January. As part of its Oregon enterprise zone tax abatement, it must create at least 10 new jobs that pay above the prevailing wage in Crook County. *The Bulletin 09/01/2015*

Daimler Trucks North America will invest \$18 million into an upgrade of its research and development facility near the Madras Airport that will be completed late next year. Thirty workers will also be added. *The Bulletin 08/28/2015*

Haggen will close two stores in Klamath Falls, and one in Keizer, Tualatin, and northeast Grants Pass in October, laying off 331 people. *Statesman Journal 08/14/2015*

Mt. Bachelor Memory Care in Bend will open a 76-unit assisted living facility and a 24-unit memory care facility next summer. It will also add 45 workers. *The Bulletin 08/01/2015*

Oregon Institute of Technology in Klamath Falls approved funding for the construction of a new Center for Excellence in Engineering and Technology. *Herald and News 07/15/2015*

Advanced Energy Industries Inc. will close its solar inverter business in Bend. *The Bulletin 06/30/2015*

Tech Soft 3D moved its software company headquarters from Berkeley, CA to Bend. *The Bulletin 06/02/2015*

Southern Oregon

Core-Mark International, a supplier to convenience stores, will close its Grants Pass distribution center. The company's 49 employees have been offered jobs in Portland and Sacramento. *Mail Tribune 08/31/2015*

Erickson will relocate 25 workers from the former Evergreen Helicopter facility in McMinnville to Medford. About 10 to 12 others will move to its Portland headquarters. *Mail Tribune 08/07/2015*

AllCare Health in Grants Pass will build a new facility that will house about 150 administrative employees. *Grants Pass Daily Courier 07/29/2015*

In-N-Out Burger in Medford is under construction and is accepting applications for 50 to 60 positions. *KOBI 07/14/2015*

Lithia Place, a memory care facility, will open in Ashland. It will employ 44 people. *Ashland Daily Tidings 06/16/2015*

Motorcycle Superstore in Medford will begin relocating to the Dallas-Fort Worth area in August and permanently close in March. It employs 118 people. *Mail Tribune 06/05/2015*

Tab 8

Glossary of Terms Related to Energy Trust of Oregon's Work

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 current and comprehensive information. Last updated July 2015.

Above-Market Costs of New Renewable Energy Resources

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

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, efficient windows and weatherstripping, which reduce the amount of cold air entering or warm air escaping 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 (Btu)

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 and Power, 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. *Reference the Board Combined Heat and Power Policy*

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). 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. *Reference the Board Cost-Effectiveness Policy and General Methodology*

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.

Enthalpy

Enthalpy is the useful energy or total heat content of a fluid. Ideally, the total enthalpy of a substance is the amount of useful work that substance can do. Enthalpy is used in fluid dynamics and thermodynamics when calculating properties of fluids as they change temperature, pressure and phase (e.g. liquid to liquid-vapor mixture). In HVAC, refrigeration and power cycle processes, enthalpy is used extensively in calculating properties of the refrigerant or working fluid. Additionally, in HVAC applications, enthalpy is used in calculations relating to humidity. An enthalpy economizer is a piece of HVAC equipment that modulates the amount of outdoor air entering into a ventilation system based on outdoor temperature and humidity.

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 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. In Oregon, the pilot program was called the Volumetric Incentive Rate program and each investor-owned utility in the state ran separate programs. Solar systems receiving a feed-in tariff rate were not eligible for Energy Trust incentives or a state tax credit.

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 Certificates or RECs)

See the Renewable Energy Certificates entry.

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 reusing heat from the cold outdoors with an electrical system in the winter. Most systems use forced warm-air delivery systems to move heated air throughout the house.

Heating, Ventilation and Air Conditioning (HVAC)

Mechanical systems that provide thermal comfort and air quality in an indoor space. They 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 Btu. 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 power approximately one typical PGE or Pacific Power household for one month. (Based on an average of 11,300 kWh consumed per household per year.)

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 a greenhouse gas.

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 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.

Oregon Public Utility Commission (OPUC)

Energy Trust operates under a grant agreement with the OPUC and reports quarterly and annually to the state agency. Reports include quarterly presentations to the commission and an annual update on progress to OPUC minimum annual performance measures.

Path to Net Zero (PTNZ)

The Path to Net Zero pilot was launched in 2009 by the 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. The offer 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 semiconductor materials. Photovoltaic systems are one type of solar system eligible for Energy Trust incentives.

Program Management Contractor (PMC)

Company Energy Trust contracts with to deliver and implement a program or major program track. PMCs keeps costs low for utility customers, draw from existing expertise and skills in the market, and allow Energy Trust to remain flexible and nimble as the market changes. PMC contracts are competitively selected, reviewed by a committee with internal staff and external representatives, and approved by the board.

Program Delivery Contractor (PDC)

Company Energy Trust contracts with to implement a specific program track. PDCs keeps costs low for utility customers, draw from existing expertise and skills in the market, and allow Energy Trust to remain flexible and nimble as the market changes. PDC contracts are competitively selected, reviewed by a committee with internal staff and external representatives, and approved by the board.

Public Purpose Charge

Established in SB 1149, the public purpose charge is a 3 percent charge from PGE and Pacific Power Oregon customers. Three fund administrators distribute the ratepayer dollars: Energy Trust of Oregon for energy efficiency, market transformation and renewable energy programs; the Oregon Department of Energy for energy efficiency in schools; and Oregon Housing and Community Services for low-income weatherization and housing assistance. Energy Trust is funded through the public purpose charge (SB 1149), supplemental funding (SB 838) and contracts with two gas utilities.

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 Certificates (RECs or Green Tags)

A Renewable Energy Certificate is a tradable commodity that represents the contractual rights to claim the environmental attributes of a certain quantity of renewable electricity. The environmental attributes include the reductions in emissions of pollutants and greenhouse gases that result from the delivery of the renewably-generated electricity to the grid.

Here's how emission reductions occur: When a renewable energy system 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, the renewable energy system causes them to generate fewer emissions of pollutants and greenhouse gases. These reductions in emissions are the primary component of RECs.

RECs 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. RECs 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.

RECs are bought and sold every day in the electricity market. They are measured in units, like electricity. Each kilowatt hour of electricity that a renewable energy system produces also creates a one-kilowatt hour REC. *Reference the Board Renewable Energy Certificate Policy*

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, including in Oregon, 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 for 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

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 through the Oregon Department of Energy and to low-income customers through Oregon Housing and Community Services. SB 1149 is one stream of funding for Energy Trust, which is also funded through SB 838 to deliver achievable energy efficiency above the 3 percent and identified in utility integrated resource planning processes, and individual contracts with NW Natural and Cascade Natural Gas to deliver natural gas efficiency programs.

SB 838

SB 838, enacted in 2007, augmented Energy Trust’s mission in many ways. It provided a vehicle for additional electric efficiency funding for customers under 1 aMW in load by allowing PGE and Pacific Power to fund cost-effective energy efficiency above the 3 percent, and restructured the renewable energy role to focus on renewable energy systems that are 20 MW or less in size. SB 838 is also the legislation creating the state’s Renewable Portfolio Standard and extended Energy Trust’s sunset year from 2012 to 2026.

SB 838 is often categorized as supplemental funding in Energy Trust budget documents.

Sectors

For energy planning purposes, the economy is divided into four sectors: residential, commercial, industrial and irrigation. At Energy Trust, programs are divided into four sectors: residential, commercial (including multifamily), industrial (including irrigation) and renewable energy.

Self-Directing Consumers

A retail electricity consumer that has used more than one aMW of electricity at any one site in the prior calendar year or an aluminum plant that averages more than 100 aMW 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.

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.

Strategic Energy Management (SEM)

A program offering for both commercial and industrial customers: commercial Strategic Energy Management and industrial Strategic Energy Management. Through SEM, customers engage with Energy Trust for a year or more in a systematic and ongoing approach to lowering energy usage. Energy Trust helps customers track and monitor energy use and performance, identify and implement no-cost and low-cost operations and maintenance changes, develop an energy management plan and more. SEM creates culture change around energy, training employees at all levels that energy use can be tracked, reduced and managed.

Therm

One hundred thousand (100,000) British thermal units (1 therm = 100,000 Btu).

Total Resource Cost Test

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. This test is central to how Energy Trust delivers on its mission. This test is the main test that determines whether Energy Trust can offer an incentive for a project. It also reflects the region's approach to long-term energy planning by prioritizing investment in low-cost energy resources. *Reference the Board Cost-Effectiveness Policy and General Methodology*

Tidal Energy

Energy captured from tidal movements of water.

Trade Ally Contractor (Trade Ally)

Energy Trust trade allies are valued ambassadors in the field. The network of independent contractors and other allied professionals helps homeowners, businesses, public and nonprofit entities, developers and others complete energy-efficiency and renewable energy projects across Oregon and in southwest Washington. Quite often, trade allies are the first, last and only Energy Trust representative a customer will see.

Trade Ally Network

Energy Trust statewide network of trained contractors and other allied businesses.

Utility Cost Test

This test is used to indicate the incentive amount for a project. It helps Energy Trust determine whether providing an incentive is cost effective for the utility system. *Reference the Board Cost-Effectiveness Policy and General Methodology*

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.

Acronyms Related to Energy Trust of Oregon's Work

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 organization
AFUE	Annual Fuel Utilization Efficiency	The measure of seasonal or annual efficiency of a furnace or boiler
AIA	American Institute of Architects	Trade organization
AOC	Association of Oregon Counties	
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
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	Former Oregon tax credit
BOC	Building Operator Certification	Trains and certifies building operators
BOMA	Building Owners and Managers Association	
BPA	Bonneville Power Administration	Federal power authority
BPS	Bureau of Planning and Sustainability	City of Portland government agency
CAC	Conservation Advisory Council	Energy Trust advisory council to the board
CCS	Communications and Customer Service	A group within Energy Trust
CCCT	Combined Cycle Combustion Turbine	
CEE	Consortium for Energy Efficiency	National energy efficiency group
CEW	Clean Energy Works	
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 ratio of heat output to electrical energy input for a heat pump
CR	CLEAResult	Program Management Contractor for Existing Homes, New Homes and New Buildings
CRM	Customer Relationship Management system	Energy Trust's system to capture information on program participants and non-participants that have communicated with us
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	
EA	Earth Advantage	
EASA	Electrical Apparatus Service Association	Trade association
ECM	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	
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	Energy Trust 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	
GP	Great Plains	Energy Trust's financial tracking system
HBA	Home Builders Association	
HER	Home Energy Review	Online review of a residential customer's home
HSPF	Heating Season Performance Factor	
HVAC	Heating, Ventilation and Air Conditioning	
IBEW	International Brotherhood of Electrical Workers	
ICNU	Industrial Customers of Northwest Utilities	Trade interest group
ICF	ICF International	Existing Buildings Program Management Contractor
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 Solution Implementation Project	
ISM	Instant-Savings Measure	See definition in text
ITC	Investment Tax Credit	Federal
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	
LM	Lockheed Martin	Existing Multifamily Program Management Contractor
LOC	League of Oregon Cities	Local government organization
MEEA	Midwest Energy Efficiency Alliance	Midwest Market Transformation organization, Alliance counterpart
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
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 energy efficiency and renewable energy organization funded by a systems benefit charge
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 and one of three public purpose charge administrators
OHCS	Oregon Housing and Community Services	One of three public purpose charge administrator
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
OSEIA	Solar Energy Industries Association of Oregon	Volunteer nonprofit organization dedicated to education/promotion
P&E	Planning and Evaluation	A group within Energy Trust
PAC	Pacific Power	

PDC	Program Delivery Contractor	Company contracted with Energy Trust to identify and deliver industrial and agricultural services, and commercial Strategic Energy Management services, to Energy Trust customers
PECI	Portland Energy Conservation, Inc.	Portland nonprofit; former Energy Trust PMC
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
PNUCC	Pacific Northwest Utilities Conference Committee	
PPC	Public Power Council	National trade group
PPL	Pacific Power	Formerly Pacific Power and Light
PSE	Puget Sound Energy	Investor-owned utility
PT	Project Tracking	Energy Trust's database that tracks details on customer projects
PTC	Production Tax Credit	Federal incentive that provides financial support for the first 10 years of a renewable energy facility's operation
PTCS	Performance Tested Comfort Systems	Promotes the efficiency of air-systems in residential homes
PTNZ	Path to Net Zero	See definition in text
PUC	Public Utility Commission	
PUD	Public Utility District	
PURPA	Public Utility Regulatory Policies Act	See definition in text
QF	Qualifying Facility	
RAC	Renewable Energy Advisory Council	Energy Trust advisory council to the board
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	
RNW	Renewable Northwest	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
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
SIS	Scientific Irrigation Scheduling	Agricultural information program
SNOPUD	Snohomish Public Utility District	Washington State PUD
SEIA	Solar Energy Industries Association	Volunteer nonprofit organization dedicated to education/promotion
SWEEP	Southwest Energy Efficiency Partnership	Southwest market transformation group
T&D	Transmission & Distribution	
TRC	Total Resource Cost	See definition in text
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
WUTC	Washington Utilities and Transportation Commission	
Wx	Weatherization	
W	Watt	