

# **Energy Trust of Oregon 2009 Annual Report**

April 15, 2010

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# I From the Executive Director: 2009 Highlights

For Energy Trust of Oregon, 2009 was a productive and robust year characterized by new opportunities, innovation and challenges stemming from the economy. Believing low-cost energy efficiency and renewable energy technologies are the path to our clean energy future, Energy Trust embraced aggressive goals in its new five-year strategic plan, adopted at the end of 2009. An organization redesign focused on internal efficiency gains and restructuring to meet growing expectations and highlight service to customers. Broad support for our work resulted in new funding, strengthening the linkage between how utilities plan to meet their future needs and Energy Trust goals. Looking ahead, these and other annual results position Energy Trust to deliver even more cost-effective energy efficiency and additional renewable energy benefits for utilities and their customers.

I am particularly excited about the strategic changes we defined with others in 2009. Importantly, we invested in having a greater presence throughout the state to better serve those living in southern, northwestern and eastern Oregon. This translated into greater awareness of Energy Trust among residential customers, growing from 32 percent in 2008 to 41 percent in 2009. Website visits and call volumes also increased 17 percent and 24 percent, respectively, over 2008.

Our work continues to help businesses stay in business and creates jobs during these tough economic times. With double digit unemployment in our state, nearly 300 more energy service businesses signed up to work with us in 2009, a 25 percent increase over 2008. Our growing network of almost 1,500 trade ally contractors used Energy Trust incentives to leverage their businesses and sell more products and services. We estimate that our programs helped create more than 750 jobs in 2009, roughly 150 more than in 2008, resulting in almost 2,300 jobs created since 2002. In more job-creating activity, Energy Trust paired our resources with nearly \$3 million in 2009 federal stimulus funding, investing them in cities, counties and other public entities throughout Oregon.

Innovation came in a variety of ways last year, including through cooperation with the City of Portland, local utilities, Shorebank Enterprise Cascadia, workforce equity advocates and others to develop Clean Energy Works Portland, the first Energy Efficiency and Sustainable Technology (EEAST) pilot program. This novel approach sets out to test new ways of helping consumers evaluate and decide on energy-saving improvements for their homes and offers no-upfront-cost financing with payback on utility bills. The program also provides training for a broader and more diverse workforce, helping build the future infrastructure needed to weatherize more homes.

Another successful innovation is a highly replicable solar energy strategy Energy Trust supported through SE Uplift, a Portland neighborhood coalition. Solarize Southeast led to 120 solar electric systems being installed (348 kilowatts of new capacity) starting in 2009 and continuing into early 2010. This magical combination of community meetings, system savings through bulk purchases and limited-time offers broke all records for solar installations in the program's six-year history. Now, four new neighborhood- and city-led Solarize initiatives have spawned, including one in Pendleton, as of early 2010.

We were pleased to begin new services for NW Natural customers in 2009. Industrial customers are now able to participate through a pilot program, and new programs are being delivered to 60,000 NW Natural residential and commercial customers in Southwest Washington.

2009 also marks completion of the first LEED<sup>®</sup> platinum certified indoor solar heated pool in the country. Additionally, our first geothermal generation project with the Oregon Institute of Technology was funded, and we provided incentives for the first urban wind turbines atop 12 West, a downtown high-rise building. The Energy Performance Score approach to providing energy and carbon usage information to buyers of new homes was also tested, one of the first of its kind in the nation.

Knowing how hard-hit the education sector has been, Energy Trust provide more than \$3.8 million in financial incentives to 155 energy-saving and renewable energy generation projects in Oregon schools, community colleges and universities. Cumulatively, Energy Trust has provided more than \$9.8 million in incentives for more than a thousand Oregon school projects throughout the state, helping schools reduce current and future operating costs. During the 2008-2009 school year, LivingWise energy efficiency curriculum kits were distributed to 27,000 students in more than 700 Oregon sixth-grade classrooms. This form of educational outreach led students to work with their parents and install efficiency upgrades in homes that produced energy and bill savings.

New funding commitments made to expand and diversify regional market transformation activities through the NW Energy Efficiency Alliance will help ensure future success in new markets. Investments in emerging technologies will lead our transition from savings acquired through compact fluorescent light bulbs to other technologies, new codes and standards.

We are pleased to report that the energy saved and generated through our programs since 2002 has saved Oregonians nearly \$600 million on electric and gas bills. Thanks to the collaborative contributions of our volunteer board, active utilities and stakeholders, the Oregon Public Utility Commission, talented contractors and willing participants, the benefits to Oregon ratepayers from our investments in clean energy will continue to grow in the years ahead. Thank you.

Margie Harris, Executive Director

# II Background, Mission and Goals

## A. Background

Since March 2002, Energy Trust has invested public purpose funds from utility customers to help Oregonians benefit from energy efficiency improvements and renewable energy generation. We are funded by and provide services to Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas.

Energy Trust serves all of these utilities' residential customers and most of their commercial and industrial customers. We offer technical and other assistance and financial incentives through nine programs, helping customers learn about the value of clean energy investments and derive direct benefits from them. Five programs are managed internally and four—the residential and commercial efficiency programs—are competitively bid and managed by contractors. For most programs, services are provided by specialized local businesses who are part of a network of almost 1,500 trade allies from throughout the state.

Our work is shaped by two advisory councils and is led by an independent, diverse board of directors whose members volunteer their time and expertise. Via contract with the Oregon Public Utility Commission, we comply with reporting and other requirements it establishes for our operations, performance and achievements.

### **B.** Mission

The Energy Trust mission is to "change how Oregonians produce and use energy by investing in efficient technologies and renewable resources that save dollars and protect the environment."

### C. Vision

Imagine meeting the future energy needs of Oregonians in a way that lowers energy costs, adds comfort to homes, strengthens our economy and leaves our environment healthier for generations to come. This will happen when we choose to use energy more efficiently and develop renewable energy resources. The people at Energy Trust are committed to this future.

## D. 2012 Goals<sup>1</sup>

- 1. Save 300 average megawatts of electricity.
- 2. Save 21 million annual therms of natural gas.
- 3. Help Oregonians meet 10 percent of their electricity needs from renewable resources.
- 4. Expand participation by customers that have been hard to reach historically.
- 5. Help businesses thrive by promoting energy efficiency and renewable energy.
- 6. Encourage Oregonians to integrate energy efficiency and renewable energy in daily life.

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<sup>&</sup>lt;sup>1</sup> The 2012 goals were adopted as part of Energy Trust's first strategic plans and reflect the term of Energy Trust's funding agreement with the Oregon Public Utility Commission. In 2007, the Oregon Legislature extended the public purpose charge, Energy Trust's principal funding mechanism, through 2025, and allowed utilities to seek supplemental funds for energy conservation programs. These funds provide additional resources for Energy Trust programs and allow it to achieve more energy savings. In December 2010, Energy Trust's board adopted a new strategic plan with goals for 2014. Beginning first quarter 2010, we will report progress toward those goals.

## III 2009 Results

### A. General

- Since 2002, cumulatively saved 222 average megawatts of electricity and 13.1 million annual therms of natural gas, equivalent to 74 percent and 62 percent, respectively, of our 2012 electric and gas saving goals. (See p. 10, Electric Efficiency Savings, for impact on these totals from addition of savings from self-direct projects.)
- Cumulatively generated 99.7 average megawatts of renewable energy, approximately 66 percent of the aggressive 2012 goal of 150 average megawatts.
- Saved Oregon utility customers \$165 million in 2009. Since 2002, cumulative customer bill savings total \$593 million.
- Generated \$32 million in wages, \$5.3 million in new business income and created 750 new jobs<sup>2</sup> as a result of 2009 program activity.
- Through cumulative effects of these savings since 2002, generated \$76 million in wages,
   \$11 million in new business income and almost 2,300 new jobs.
- Cumulatively improved air quality by offsetting more than 4.3 million tons of carbon dioxide generated by fossil fuels<sup>3</sup>, the equivalent of taking more than 750,000 cars off the road for one year.
- Completed nearly 93,000 clean energy projects in 2009, a new annual record and an increase of 58 percent over 2008. The value of incentives paid increased by 30 percent. More Oregonians participated than ever before. However, spending per project was less than in the past, likely due to the economy.
- In 2009, saved 32.3 average megawatts of electricity at a levelized cost of 2.8 cents per kilowatt hour. This savings is close to the midpoint between our conservative and stretch year-end goals<sup>4</sup>. Compared to 2008, annual savings declined by 6 percent likely linked to economic conditions, which led to delay and cancellation of many commercial and industrial projects.
- Saved nearly 2.9 million annual therms of natural gas at a levelized cost of 48 cents per therm. Gas savings achieved 90 percent of the 2009 stretch goal and exceeded 2008 results by 16 percent.
- Electric and gas efficiency savings, averaged over three years, comfortably exceeded Oregon Public Utility Commission performance measures, as did annual levelized life-cycle costs.
- Increased solar electric generation by 50 percent over 2008—an exciting outcome. Overall
  renewable energy generation for the year of 2.6 average megawatts was below 2008 levels
  as the transition from utility scale projects to smaller projects was completed. Delays in
  project completion shifted 4 average megawatts of new generation into 2010.

<sup>3</sup> Source: Northwest Power and Conservation Council, .76 lbs of carbon dioxide reduction per kWh of energy saved or generation using renewable resources, 11.7 lbs of carbon dioxide reduction per therm saved.

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<sup>&</sup>lt;sup>2</sup> Source: ECONorthwest 2007. Economic impact numbers are in addition to what would have occurred without Energy Trust's investment of public purpose funds. A new study was not done for 2009. The economic impact for 2009 is extrapolated from the 2007 study based on the dollar volume of investment in each year.

<sup>&</sup>lt;sup>4</sup> Energy Trust reflects annual goals in a range, with a 25 percent difference between the conservative and stretch goals. The range is based on our assessment of the extent of factors beyond our control, such as variability in market conditions, project completion dates and technology performance.

- Small-scale renewable energy generation, averaged over three years, continues to come in lower than OPUC performance targets and we expect to catch up, with 4 average megawatts projected annually over the next several years.
- Maintained low administrative costs of 6.2 percent, in full compliance with the OPUC performance measure of 11 percent.
- Obtained an unqualified financial audit and strong customer satisfaction ratings, which satisfied additional OPUC performance requirements.
- Expanded the number of Oregon trade allies by 25 percent, helping support Oregon's economy during tough times.

## B. Residential efficiency programs

- Came within 6 percent of electric stretch goals in both Existing Homes and New Homes and Products. New Homes and Products achieved 98 percent of its gas stretch goal, while Existing Homes met 83 percent of its gas stretch goal.
- Conducted 9,100 Home Energy Reviews, a 43 percent increase over 2008.
- Helped fund the purchase of 50,806 energy-efficient clothes washers and refrigerators. The volume of high-efficiency clothes washers and refrigerators sold more than doubled in 2009 compared to 2008
- Installed energy-efficient measures such as sealed ducts, insulation, high-efficiency space heating equipment and energy-efficient windows in 15,490 single-family homes, 11,245 multifamily units and 1,805 manufactured homes.
- In collaboration with the City of Portland and other organizations, launched the 500-home Clean Energy Works Portland pilot, offering no-upfront-cost financing for set packages of home efficiency upgrades with pay back over 20 years on utility bills.
- Saw the share of the New Homes efficient construction market increase to 15 percent in 2009, compared to 11 percent in 2008.
- The number of refrigerators and freezers recycled grew by 88 percent.
- Single-family efficiency retrofits grew 42 percent and multifamily units retrofitted increased 11 percent compared to 2008.
- Installed solar water heating systems in 108 homes with electric hot water and 56 homes with gas hot water. Compared to 2008, the number of residential solar water installations in 2009 declined by 29 percent, reflecting in part the down economy and also the increased demand for residential photovoltaic systems.

## C. Commercial efficiency programs

- Saw many projects cancelled or delayed in the slow economy, impacting results. Existing
  Buildings and New Buildings both came at or just below their conservative electric savings
  goals. Existing Buildings hit midpoint between its conservative and stretch gas savings goals.
  New Buildings exceeded its gas stretch goal, a result of a few large gas projects that offered
  a unique opportunity; without these, the effect of the recession would have been much more
  apparent.
- Installed high-efficiency measures including energy-efficient lights and efficient heating, ventilation and air conditioning equipment in 1,608 commercial buildings, 17 percent more activity than in 2008. Average incentive payment per site was approximately \$6,107.
- Completed 250 efficient new commercial buildings. The number of new construction projects declined 9 percent from 2008, as economic conditions led to delays and cancellations.

• Installed solar water heating systems in 15 businesses with gas hot water and 13 with electric hot water, for a total of 28 systems compared to 18 in 2008.

### D. Industrial efficiency program

- Achieved 73 percent of the program's electric stretch goal (just below its conservative goal).
   Gas results were stronger, at 82 percent of the stretch gas goal. Completed electric energy saving projects at 645 manufacturing firms.
- The nearly 70 percent growth in the number of industrial efficiency projects over 2008 is attributed to the small industrial initiative, which provides streamlined operations for agriculture and smaller industrial operations.
- Began a NW Natural industrial pilot program at mid-year that by year-end had committed funds for 11 projects to install in 2010.

### E. Renewable energy programs

- Provided incentives to help install solar electric systems in 365 homes and 116 commercial buildings. More than twice as many residential solar electric projects were completed in 2009 than in 2008, while commercial solar projects increased by 14 percent.
- Remained flexible and maintained commitment to completing 10 small wind systems, 3 biopower projects, a large solar project, another large geothermal project and numerous commercial solar projects. Many encountered delays as a consequence of uncertainty around the Business Energy Tax Credit, as well as economic conditions.
- Built a robust pipeline of projects into 2010 and beyond.

# IV Revenues and Expenditures

- Received \$90.8 million in Oregon public purpose revenues during 2009.
- Spent \$96.9 million (including carryover funds from prior years), investing 28 percent more than in 2008.
- Paid more than \$53.2 million in incentives for efficiency and renewable energy projects.

### A. Revenues

Oregon public purpose revenues for 2009 were \$2.1 million or 2.3 percent below budget.

Source	Actual Revenues Received	Budgeted Annual Revenues
Portland General Electric	\$34,511,236	\$37,129,558
Pacific Power	\$21,335,551	\$21,972,933
PGE Incremental	\$13,655,739	\$14,078,321
Pacific Power Incremental	\$8,155,001	\$8,521,223
Cascade Natural Gas	\$1,000,175	\$989,233
NW Natural	\$11,433,840	\$9,753,627
NW Natural DSM Pilot	\$750,000	\$750,000
Total	\$90,841,542	\$93,194,896

## **B.** Expenditures

Electric efficiency spending was below budget by about \$12.2 million for the year, or 16 percent. The decline resulted mainly from delay or cancellation of commercial and industrial projects due to economic concerns. Gas expenditures for 2009 were \$2.4 million, or 12 percent, below budget. Renewable program spending was \$18.0 million below budget for the year, as projects were pushed into 2010 and beyond for completion.

Туре	Actual Expenditures Annual	Budgeted Expenditures Annual		
Energy Efficiency programs	\$80,145,759	\$93,797,241		
Renewable Energy programs	\$13,135,514	\$30,573,655		
Administration	\$3,666,524	\$4,468,927		
Total	\$96,947,797	\$128,839,823		

	Incentives Paid 2009									
	Energy Efficiency					Renewab	Total			
	Cascade									
		Pacific		Natural			Pacific			
Quarter	PGE	Power	<b>NW Natural</b>	Gas	Avista	PGE	Power			
Q1	\$2,179,158	\$1,144,836	\$1,372,914	\$125,265	\$8,134	\$1,778,071	\$348,870	\$6,957,248		
Q2	\$3,830,710	\$1,759,482	\$2,105,995	\$93,043	\$5,187	\$607,074	\$1,342,110	\$9,743,601		
Q3	\$4,273,485	\$3,038,442	\$2,016,477	\$92,284	\$8,194	\$914,053	\$1,065,719	\$11,414,354		
Q4	\$10,552,296	\$6,747,752	\$2,980,623	\$326,380	\$624	\$2,633,181	\$1,875,280	\$25,114,711		
Total	\$20,835,649	\$12,690,512	\$8,476,009	\$636,972	\$22,139	\$5,932,379	\$4,631,979	\$53,229,914		

Note: The total incentives column includes an additional \$4,275 in incentives provided through collaborations with the City of Ashland and Northern Wasco County Public Utility District.

#### V **Savings and Generation**

## A. Electric efficiency savings

In 2009, Energy Efficiency programs saved 32.3 average megawatts, achieving 84 percent of Energy Trust's 2009 stretch goal of 38.5 average megawatts. Since March 1, 2002, these programs have cumulatively saved 222 average megawatts. Including 20 average megawatts of savings from self-direct customers, Energy Trust has achieved 81 percent of its 2012 goal.<sup>5</sup> This is equivalent to powering 187,400 average Oregon homes for a year. The totals reflect the annual "true up" that adjusts for evaluation results, market research and other factors. 6 The 32.3 average megawatts were acquired at a levelized cost of 2.8 cents per kilowatt hour, approaching the stretch goal of 2.6 cents per kilowatt hour.

Electric Efficiency Savings	PGE aMW	Pacific Power aMW	Total Savings aMW	Expenses	mil \$ / aMW	Levelized Cost/kWh
Commercial	7.4	3.2	10.5	\$24,234,351	\$2.3	2.7 ¢
Industrial	5.1	3.9	9.0	\$15,632,131	\$1.7	2.7 ¢
Residential	7.9	4.9	12.8	\$25,787,574	\$2.0	3.0 ¢
Total Energy Efficiency programs	20.4	12.0	32.3	\$65,654,056	\$2.0	2.8 ¢

Electric efficiency savings numbers include transmission and distribution savings

## B. Gas efficiency savings

In 2009, efficiency programs saved 2.9 million annual therms of natural gas, or 90 percent of our 2009 stretch goal of 3.2 million annual therms. Since gas programs began in 2003, cumulative savings of 13.1 million annual therms have been realized, accounting for 62 percent of the 2012 OPUC goal of 21 million annual therms. This is equivalent to providing gas heat to about 26,000 homes for a year. These totals reflect the annual "true up." The 2.9 million annual therms were acquired at a levelized cost of 48 cents per therm, matching the 2009 stretch goal.

Gas Efficiency Savings		Cascade Natural		Total Savings		\$ /	Levelized
	NW Natural	Gas	Avista	Therms	Expenses	Therm	Cost/Therm
Commercial	1,304,131	72,029	0	1,376,160	\$5,399,336	\$3.9	32 ¢
Industrial	184,423	47,918	0	232,341	\$562,361	\$2.4	23 ¢
Residential	1,110,632	133,234	4,275	1,248,141	\$11,680,223	\$9.4	69 ¢
Total Energy Efficiency	2,599,186	253,181	4,275	2,856,642	\$17,641,920	\$6.2	48 ¢

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<sup>&</sup>lt;sup>5</sup> Savings from self-directed efficiency projects count toward the current goal of achieving 300 average megawatts of savings by 2012. To date, 20 average megawatts of savings have been achieved by industrial consumers via self-directed funding. Beginning in 2010, we will report on goals for 2014 established in Energy Trust's new strategic plan adopted in December 2009. <sup>6</sup> Uncertainty remains about savings for some larger industrial projects and will be resolved in the 2011 true-up.

## C. Renewable energy generation

Total renewable energy generation of 2.6 average megawatts for the year met the conservative case goal.<sup>7</sup> To date, cumulative renewable energy generation totals 99.7 average megawatts, or 66 percent of the 2012 OPUC generation goal of 150 average megawatts.

		Pacific	Total			
Renewable Energy Generation	PGE	Power	Generation		mil \$ /	Levelized
	aMW	aMW	aMW	Expenses	aMW	Cost/kWh
Biopower	0.000	1.390	1.390	\$ 1,187,364	\$0.9	0.8 ¢
Open Solicitation	0.140	0.470	0.610	\$ 2,789,969	\$4.6	4.2 ¢
Solar Electric Program	0.380	0.240	0.620	\$ 8,565,976	\$13.8	13.0 ¢
Utility Scale	0.000	0.000	0.000	\$ 499,162	n/a	n/a
Wind Program	0.020	0.000	0.020	\$ 609,347	\$30.5	38.3¢
Total Renewable Programs	0.540	2.100	2.640	\$ 13,651,818	\$5.2	4.8 ¢

Renewable energy generation numbers include transmission and distribution savings, where appropriate

## D. Incremental electric efficiency funding (SB 838)

2009 was the first full year of supplemental energy efficiency funding from Pacific Power and Portland General Electric, authorized under SB 838. As approved by the OPUC, Pacific Power and Portland General Electric retained a portion of these funds for their activities in support of acquiring additional energy savings. Below are tables showing electric efficiency savings and expenses derived from public purpose revenues (SB 1149) separate from electric efficiency savings and expenses derived from incremental funds (SB 838), and the utilities' portions of SB 838 expenditures.

SB 1149 Electric Efficiency Savings	PGE aMW	Pacific Power aMW	Total Savings aMW	Expenses	Mil \$/aMW
Commercial	5.43	2.03	7.5	\$16,132,848	\$2.2
Industrial	4.61	3.71	8.3	\$12,181,955	\$1.5
Residential	5.5	3.64	9.1	\$14,746,114	\$1.6
Total Electric Energy Efficiency programs	15.5	9.4	24.9	\$43,060,917	\$1.7

SB 838 Electric Efficiency Savings	PGE aMW	Pacific Power aMW	Total Savings aMW	Expenses	Mil \$/aMW
Commercial	1.9	1.1	3.1	\$8,095,947	\$2.6
Industrial	0.5	0.2	0.7	\$3,450,176	\$5.0
Residential	2.4	1.3	3.7	\$11,041,460	\$3.0
Total Electric Energy					
Efficiency programs	4.8	2.6	7.4	\$22,587,583	\$3.0

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<sup>&</sup>lt;sup>7</sup> The conservative goal for 2009 renewable energy generation is 2.6 average megawatts. This reflects generation associated with expenditures made in 2009. An additional 3.7 average megawatts of generation was committed in 2009 to come on line in 2010 and beyond. (2009 budget and action plan documents reflected a larger conservative goal, the "activity-based" goal, which assumes all the generation committed but not paid in 2009 would count toward the goal.)

## **SB 838 Utility Expenditures**

	2009 Expenditures	2009 \$Mil /aMW*	2009 Levelized Cost*
PGE	\$394,554	\$0.02	0.03 ¢
Pacific Power	\$424,676	\$0.04	0.05 ¢
Total	\$819,230	\$0.03	0.03 ¢

<sup>\*</sup> Reflects incremental increase in costs to Energy Trust derived from expenditures by Pacific Power and Portland General Electric under terms of the agreement described in SB 838.

See Appendix p. 27 for reports prepared by Pacific Power and Portland General Electric on utility activities funded through SB 838.

## VI 2009 Performance Measures

Each year the Oregon Public Utility Commission establishes minimum performance measures for Energy Trust in a variety of categories. Minimum savings and generation figures for energy efficiency programs and renewable energy programs are set at an aggregated level rather than at an individual program or sector level. This allows Energy Trust to pursue different program strategies in residential, commercial and industrial sectors as market forces and technological advances change.

The following minimum performance measures apply in 2009.

## **Electric Efficiency Performance Targets**

 Electricity efficiency savings of at least 31 average megawatts, computed on a three-year rolling average

Exceeded, with 2007-2009 average annual electric efficiency savings = 34 average megawatts

Levelized life-cycle cost should be no more than 3.5 cents per kilowatt hour

Well within requirement, with 2009 average levelized life-cycle cost = 2.8 cents per kilowatt hour

## **Natural Gas Efficiency Performance Targets**

 Natural gas efficiency savings of at least 1.8 million annual therms, computed on a threeyear rolling average

Exceeded, with 2007-2009 average annual gas efficiency savings = 2.9 million annual therms

Average levelized life-cycle cost should not exceed 60 cents per annual therm

Well within requirement, with 2009 average levelized life-cycle cost = 48 cents per annual therm

### **Renewable Resource Development Targets**

 Secure at least 3 average megawatts of new renewable resources per year, computed on a three-year rolling average

Behind target at 2.0 average megawatts—with 4 average megawatts shifting into 2010 due to development delays (Energy Trust has a healthy pipeline of projects going forward and expects to average just over 4 average megawatts a year for the next several years)

### **Financial Integrity**

• Demonstrate financial integrity by obtaining an unqualified financial audit opinion annually

Full compliance, with an unqualified financial audit opinion for 2009

## **Program Delivery Efficiency**

Keep administrative and program support costs<sup>8</sup> below 11 percent of annual revenues

Well within requirement, with 2009 administrative and program support costs at 6.2 percent of annual public purpose revenues

### **Customer Satisfaction**

Demonstrate reasonable rates of customer satisfaction with Energy Trust services

In 2009, evaluations incorporating customer satisfaction measures were completed for Existing Buildings, Production Efficiency and the Refrigerator Recycling initiative, with the following results:

Program Percent of Customers
Satisfied or Very Satisfied

Refrigerator Recycling 97 percent Existing Buildings 95 percent Production Efficiency 94 percent

Energy Trust recorded 21 customer complaints in 2009, and 72 since beginning operations in 2002

### **Benefit/Cost Ratios**

Report benefit/cost ratios for larger conservation acquisition programs for 2009.

Program	Utility System Benefit-Cost Ratio	Societal Benefit-Cost Ratio
New Homes and Products	1.9	1.7
Existing Homes	1.8	1.4
Existing Buildings	3.4	1.8
New Buildings	2.6	2.2
Production Efficiency	3.1	1.8
NW Energy Efficiency Alliance	9.0	3.0

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<sup>&</sup>lt;sup>8</sup> Program support costs are defined as all program costs except the following accounts: program management, program incentive, program payroll and related expenses, call center and program outsource services.

<sup>&</sup>lt;sup>9</sup> 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.

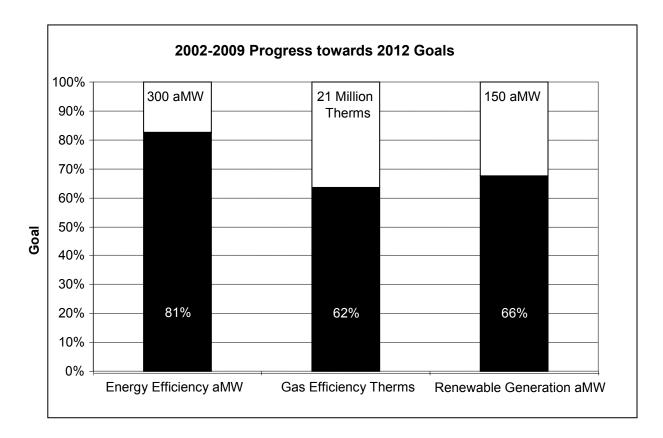
# VII Projects Completed

	Total	Electric-only	Gas-only	Both
ENERGY EFFICIENCY				
Commercial projects				
Existing buildings retrofitted	1,608	1,206	267	135
Efficient new buildings constructed	250	147	60	43
Solar water heating commercial installations	28	13	15	0
Subtotal Commercial	1,886	1,366	342	178
Industrial projects	645	618	20	7
Subtotal Industrial	645	618	20	7
Residential projects				
ENERGY STAR new homes constructed	862	266	106	490
ENERGY STAR new homes enhanced	85	10	68	7
Efficient new manufactured homes purchased	209	183	15	11
Home Energy Reviews conducted	9,100	2,112	322	6,666
Single-family homes retrofitted	15,490	3,828	11,597	65
Manufactured homes retrofitted	1,805	1,671	54	80
Multifamily units retrofitted	11,245	9,642	315	1,288
New multifamily units enhanced	171	147	9	15
Residential solar water heating installations	164	108	56	0
ENERGY STAR appliance rebates	50,806	38,398	1,171	11,237
Subtotal Residential	89,937	56,365	13,713	19,859
TOTAL EFFICIENCY	92,468	58,349	14,075	20,044
RENEWABLE ENERGY INSTALLATIONS				
Biopower project installations	1	1	0	0
Open solicitation project installations	6	6	0	0
Solar electric residential installations	365	365	0	0
Solar electric commercial installations	116	116	0	0
Wind project installations	7	7	0	0
TOTAL RENEWABLES	495	495	0	0
TOTAL EFFICIENCY & RENEWABLES	92,963	58,844	14,075	20,044

We define "projects" to be completed installations or services at one location, with certain exceptions:

- A Home Energy Review, with CFL installation, counts as one project. If that home subsequently installs one or more measures, this installation counts as a separate project.
- Each apartment unit treated counts as one project.
- Each manufactured home counts as one project.
- Measures installed in separate facilities within a large industrial complex count as separate projects.
- Project totals do not include 655,913 CFL packages sold/provided nor 14,945 old refrigerators/freezers recycled in 2009.

# **Appendix**



# **Energy Efficiency Program Descriptions**

**Existing Homes.** Residential utility customers can take advantage of energy-saving recommendations, referrals to qualified contractors and cash incentives for qualified improvements from insulation and duct sealing to energy-efficient electric, gas and solar water heaters, furnaces and heat pumps. Other offerings include Home Performance with ENERGY STAR<sup>®</sup>, a diagnostic assessment conducted by Building Performance Institute-certified contractors, as well as energy efficiency improvements targeting multifamily and manufactured home dwellings. The program also offers the web-based Home Energy Analyzer for residential customers. The program started in March 2003 and is implemented by Conservation Services Group.

New Homes and Products. The program's new homes track seeks to expand the market share of energy-efficient homes in Oregon by creating homebuyer demand for them and supporting contractors who build them. It uses a new tool called the "Energy Performance Score," which provides information for a house similar to a miles-per-gallon rating for a car. The program provides builders with incentives that are tiered to increasing efficiency levels, as well as performance testing incentives and training, and marketing support. The program also encourages the sale of energy-efficient manufactured homes by local retailers. The products track offers cash incentives for purchase of ENERGY STAR qualified clothes washers, refrigerators and lighting, and for the recycling of old refrigerators and freezers. It also promotes the "Change a Light, Change the World" CFL fundraiser for schools and nonprofits. The program began in April 2004 and is implemented by Portland Energy Conservation, Inc.

**Existing Buildings.** This program provides electric and gas energy-saving technical services and financial incentives for existing commercial buildings. Incentives are offered for a wide range of qualified improvements such as lighting, HVAC, motors, controls, boilers, solar water heating, foodservice equipment and insulation as well as customized solutions. Services include energy surveys and technical analysis, contractor referrals, project facilitation and post-installation assistance. The program began in February 2003 and is currently implemented by Lockheed Martin Services, Inc.

**New Buildings.** Financial incentives for high-efficiency electric and gas equipment, energy modeling, design assistance and commissioning help customers maximize efficiency of commercial and industrial new construction projects, major renovations and additions to existing buildings. Program participants can leverage incentives from four distinct program tracks including: Custom Track, Standard Track, LEED-NC Track, LEED-CS Track and ENERGY STAR Track. The program was launched in October 2003 and is currently implemented by Portland Energy Conservation, Inc.

**Production Efficiency.** This program provides technical assistance and incentives to improve the efficiency of manufacturing, water and wastewater treatment and agricultural facilities and processes. Measures include energy-efficient pumps, fans, refrigeration, controls, compressed air systems, HVAC, boilers, lighting and material transport. Incentives support electric efficiency improvements in all sizes and types of industrial and agricultural facilities, while natural gas measures are available only to those sites that take gas under eligible rate schedules. Facilities that purchase natural gas from a non-utility third party are not eligible for gas incentives. The program launched in May 2003 and is managed internally.

**Northwest Energy Efficiency Alliance.** Energy Trust efficiency programs benefit from the market transformation work of the Northwest Energy Efficiency Alliance. Margie Harris, Energy Trust's executive director, was elected in October to serve as vice president of the Alliance board of directors, beginning January 2010. The Alliance influences regional energy-efficient design and purchasing practices by providing strategic support, training and demonstrations for businesses to change business practices, by coordinating regional marketing activity, by marketing "upstream" to manufacturers, wholesalers, service suppliers and chain stores, and by testing and demonstrating emerging technologies. The Alliance is funded by Bonneville Power Administration, Energy Trust and regional utilities.

## **Renewable Energy Program Descriptions**

**Solar Electric**. This program provides cash incentives, quality assurance, industry support and referrals to qualified solar contractors to help homeowners and businesses generate on-site, pollution-free power from the sun.

**Open Solicitation.** The Open Solicitation program provides incentives and support for renewable energy projects using commercial technologies, such as hydropower and geothermal electric, that are not eligible for incentives through Energy Trust's other renewable energy programs. It also helps provide experience in renewable energy sectors that may in the future merit their own programs.

**Biopower.** The Biopower program provides financial incentives, cost-shared grants for feasibility studies, technical assistance and other support for projects that generate electric power from organic wastes. Eligible fuels include biogas from sewage treatment facilities, food processing and dairies; solid organic fuels from wood, forest and field residues; landfill gas; and dedicated energy crops available on a renewable basis.

**Wind.** The Wind program's four ongoing elements include: 1) cash incentives and industry support for on-site use; 2) funding support for local projects in clusters up to 20 megawatts that deliver power to the grid; 3) resource assessment through anemometer equipment incentives to help landowners determine whether sites have sufficient wind generation potential; and 4) co-funding for specific feasibility studies and project technical analyses. A fifth element, support for utility scale wind projects, ended with completion in 2008 of the 94 megawatt Goodnoe Hills project.

# 2009 Energy Trust of Oregon Board of Directors

**PRESIDENT - John Reynolds**, FAIA, is professor of architecture emeritus at the University of Oregon. He has been involved in energy issues in Oregon since 1972, when he was elected to the Eugene Water and Electric Board. Since then, he has served as chair of the American Solar Energy Society and president of Solar Energy Association of Oregon. He has served on the Oregon Alternate Energy Commission and the Energy Committee of the Building Codes Structures Board. *John served as Vice President from 2005-2007, and was re-elected President in 2009.* 

VICE-PRESIDENT - Rick Applegate is the Portland Harbor Superfund Administrator at the City of Portland Bureau of Environmental Services. He served as staff director in the U.S. Senate and House of Representatives. Since then, he has worked for nearly 25 years on energy and environmental issues, principally as an advocate for salmon and their watersheds. He was the fish and wildlife director for the Northwest Power Planning Council, west coast conservation director for Trout Unlimited and administrator of the Habitat Conservation Division at National Marine Fisheries Service (NOAA). He was the chair of the U.S. Southern Stakeholders Pacific Salmon Treaty Negotiations and a member of the Pacific Northwest Comprehensive Energy Review. He also served on the executive committee of For the Sake of Salmon and the boards of the Pacific Salmon Watershed Fund and the Sustainable Fisheries Foundation. *Rick was re-elected to a new three-year term in 2009; and was re-elected as Vice President in 2009.* 

**SECRETARY - Debbie Kitchin** is the co-owner of InterWorks, L.L.C., a construction company specializing in commercial tenant improvement and renovation and residential remodeling services. InterWorks is an award-winning contractor specializing in sustainable building practices. Prior to joining the family business in 1996, Debbie served as senior economist for the Northwest Power Planning Council for 15 years and was a regional economist for the Bonneville Power Administration for three years. Debbie also serves on the boards for the Portland Business Alliance, Portland Building Owners and Managers Association and the Central Eastside Industrial Council. She is a past president of the Portland Commercial Real Estate Women. *Debbie was re-elected as Secretary in 2009*.

TREASURER - John Klosterman is the director of operations at Oregon Food Bank, a nonprofit at the hub of a cooperative statewide network of 20 regional food banks and 935 local hunger-relief agencies and programs serving Oregon and Clark County, WA. Oregon Food Bank collects and delivers food from a wide range of sources to the regional food banks that, in turn, distribute this food and additional resources from local donations to hunger-relief agencies serving low-income people in their communities. His responsibilities include food sourcing, inventory management, warehousing and transportation logistics. Prior to joining Oregon Food Bank John was vice president of operations at Rejuvenation, Inc., serving the company for 15 years in a variety of senior management roles related to company-wide operations, product development and manufacturing. As part of a state pilot project, he led his company's implementation of an International Organization for Standardization 14001-based energy management system based on the sustainability principles of The Natural Step. For 10 years he worked directly with Asian suppliers to reduce their environmental impacts, while implementing socially responsible policies and programs in Rejuvenation's Portland operations, including supply chain, manufacturing, distribution and fulfillment. John was re-elected as Treasurer in 2009.

**Dan Davis** is the vice president of the board of directors of Habitat for Humanity Rogue Valley. He is passionate about energy conservation and alternative energy, and is currently involved in building an advanced waste vegetable oil biodiesel production facility in Central Point, Oregon. His previous experience includes working for General Electric in the 1970s and '80s, during which he designed a simple hybrid automobile and designed and built an energy-efficient home with integral passive and active solar capabilities. *Dan was appointed to the board for a three-year term beginning December 12, 2009.* 

Jason Eisdorfer recently became the greenhouse gas policy strategist for the Bonneville Power Administration, a federal agency serving the Pacific Northwest. He serves as the senior technical consultant and advisor to BPA on the development and implementation of strategic objectives, policies and programs related to global, national and state greenhouse gas and carbon dioxide issues. He served as legal counsel and energy program director of the Citizens' Utility Board of Oregon from 1994 and 2008. At CUB, he represented residential consumers in numerous rate cases and policy dockets before the Oregon Public Utility Commission. He has co-authored legislation related to electric utility operations and to climate change, including the Oregon Renewable Energy Act and the Climate Change Integration Act, both of 2007. He is an adjunct professor at Lewis and Clark Law School and the University of Oregon School of Law. Prior to joining CUB, he was an attorney with the U.S. Department of Agriculture, Office of General Counsel, and served an appointment as a Special Assistant U.S. Attorney. He received his law degree from the University of Oregon School of Law and received certificates of completion in the Environment and Natural Resources Program and the Ocean and Coastal Program. He received his B.A. from the University of Chicago. Jason was re-elected to a new three-year term in 2009.

**Dan Enloe** is a commodity manager at Intel Corporation in Hillsboro, where he has worked in varying capacities since 1984. He is a graduate of the U.S. Naval Academy with a BS in Electrical Engineering. Prior to 1984, he was on active duty in the U.S. Navy and served as a nuclear submarine officer. Since he left active duty in 1984, he has been affiliated with the Naval Reserve and has served in six reserve command tours. He is a member of the Naval Reserve Association, the American Legion and the Navy League. He also has two patents.

Roger Hamilton is manager of the local government and communities program of the Climate Leadership Initiative at the University of Oregon. He also is a consultant with Western Grid Group, an organization that promotes transmission access for renewable energy projects across the West. He owns and operates a cattle and hay ranch in south central Oregon. He has spent many years in public service as a Klamath County Commissioner, advisor on energy and watersheds to Governor Kitzhaber and Oregon Public Utility Commissioner. He has also served on the Oregon State Parks Commission and the National Association of Public Utility Commissioners. He currently serves on the board of directors of the Regulatory Assistance Project and the Pacific Rivers Council.

**Julie Hammond** is the branch manager of Beecher Carlson in Bend. She has more than 20 years experience in the insurance industry. Julie recently served Deschutes United Way as campaign chair. She brings a customer service orientation, small business perspective and regional representation to Energy Trust program delivery. *Julie was re-elected to a new three-year term in 2009.* 

Al Jubitz is a native Oregonian and spent his work career helping to build the family business, Jubitz Corporation. He is president and founder of the Jubitz Family Foundation and serves as director of Monsoon, Inc. He is also past president and an active member of the Rotary Club of Portland, a board member of the Portland Schools Foundation, director emeritus of Morrison Child and Family Services, and a trustee emeritus of Outward Bound Wilderness School. In addition, he serves on the Leadership Council of the Yale School of Forestry and Environmental Studies and serves on the National Advisory Council of Environmental Defense Fund in New York City. He has an extensive business background and brings a strong business sense to the board. He has a BS degree from Yale University and an MBA from the University of Oregon School of Business.

**Alan Meyer** is director of energy management for Weyerhaeuser Company, a diversified forest products manufacturing company. He is responsible for coordinating energy management activities at numerous manufacturing facilities throughout North America. Prior to joining Weyerhaeuser, he was director of energy for Willamette Industries, holding similar responsibilities. He also worked for PacifiCorp as the Oregon large industrial accounts manager. He brings this extensive experience in the energy industry plus prior sales and marketing experience to the board.

**Preston Michie** has more than 25 years experience working in the electric power industry, most of which was spent working as an attorney in the Office of General Counsel at the Bonneville Power Administration. Currently, he works as a consultant with the BPA to help develop Grid West, an electric energy transmission organization, support BPA's demand response programs and assess the potential for hydrogen in Northwest power applications. He is on the boards of the Northwest Hydrogen Alliance, Inc., the Wetlands Conservancy and Ridgeline Energy, LLC (a start-up wind developer). Before his time at the BPA, he was a research chemist, and is a graduate of Lewis and Clark Law School and the University of Oregon School of Business.

**Caddy McKeown** is Pacific Region supervisor for ASPIRE, a program of the Oregon Student Assistance Commission. She is active in her community, serving as commissioner and vice chair for the Oregon International Port of Coos Bay. She served on the Coos Bay School District Board of Directors for 11 years and on the budget committee for 15 years. She serves on the board of directors of the nonprofit organization that manages the Mingus Park Municipal Pool, serves the Oregon Community Foundation as a volunteer grant evaluator, and recently stepped down after 17 years on the board of directors of Bob Belloni Ranch, Inc., a residential treatment facility for adolescent offenders. Caddy brings private, nonprofit and economic development experience, years of community service and a South Coast perspective to her service to Energy Trust. *Caddy was reelected to a new three-year term in 2009*.

### ex-officio

**John Savage** is one of three commissioners serving the Oregon Public Utility Commission. He joined the staff of the OPUC in 2003 as director of its utility program, after having served as director of the Oregon Department of Energy for the previous decade. He was administrator of the department's policy and planning division from 1987-1993. He received a masters degree in natural resource economics from Oregon State University in 1979 and a bachelor of science degree from OSU in 1975.

## Oregon Department of Energy Special Board Advisor

Mark Long is the executive director of the Oregon Department of Energy. Over the last 20 years, Mark has held a variety of positions in state service. Immediately prior to his appointment to the Oregon Department of Energy, he led the Oregon Building Codes Division, which is part of the Department of Consumer and Business Services, Oregon's largest business regulatory agency. In that position, he led the governor's efforts to increase energy efficiency and integrate renewable energy and sustainable technologies into existing and new buildings. He also led the creation of the nation's first statewide electronic permitting system to improve customer access to government services at both the state and local level and initiated a number of green building efforts, from the use of solar power and grey water reuse, to electric vehicle infrastructure. He also worked at the Department of Administrative Services, where he led the state's regulatory streamlining efforts. *Mark was appointed as Oregon Department of Energy Special Board Advisor in November 2009.* 

**Betty Merrill** was the assistant director for conservation at the Oregon Department of Energy until November 2009. *Betty resigned in November 2009. Mark Long was named to replace Betty in November 2009.* 

## **Board Development Guidelines**

The Energy Trust / Oregon Public Utility Commission grant agreement calls for the Energy Trust board to include the skills, broad representation and diversity necessary to achieve its mission.

The initial board of directors included nine members and one non-voting ex-officio member from the OPUC. The nine members represented a variety of energy and business perspectives, including energy policy and planning, program implementation and evaluation, facility siting, consumer advocacy, renewable energy development and sustainable practices, and commercial and industrial sectors.

The board has experienced expected turnover, and as this has occurred the board has taken steps to broaden its membership. In addition to soliciting input through advisory councils and at public board meetings, the board polls individuals and partner organizations to identify candidates with appropriate experience from throughout the state. To allow further diversity, the board also expanded its size to 13 voting members.

Through these efforts and targeted recruitment, the current board includes voting members with background in business (industry, transportation, construction, manufacturing/retail and insurance), government and higher education. Members come from Coos Bay, Bend, Eugene, Medford and the Portland area. Of the voting members, three are women and 10 are men. The board's Oregon Public Utility Commission ex-officio member is Commissioner John Savage. The board created an additional non-voting position for an appointee of the Oregon Department of Energy. Mark Long, Oregon Department of Energy director, occupies this "special advisor" position.

All new members participate in an orientation session and are provided handbooks containing historical information, policies, plans, budgets and program descriptions. The majority of board members also participate on advisory councils and board committees. All regular board and advisory council meetings and background information are public. Advisory council and board meetings are well attended, and public comment is included in every meeting.

All regular board members complete and sign conflict of interest forms each year. The OPUC exofficio board member and the special advisor from Oregon Department of Energy do not receive confidential information. Once a year, board and staff members participate in a planning session to review progress and discuss Energy Trust's strategic direction. Board development is a part of this public planning session, as needed.

# 2009 Advisory Council Members and Meetings

## **Conservation Advisory Council**

Jim Abrahamson, Cascade Natural Gas
Brent Barclay, Bonneville Power Administration
Jess Bissonnette, Fair and Clean Energy
Paul Case, Oregon Remodelers Association
Suzanne Dillard, Oregon Department of Energy
Bruce Dobbs, Building Owners & Managers Association
Michael Early, Industrial Customers of Northwest Utilities
Joe Esmonde, International Brotherhood of Electrical Workers
Theresa Gibney, Oregon Public Utility Commission
Charlie Grist, NW Power Planning Council
Andria Jacob, City of Portland
Don Jones, PacifiCorp
Holly Meyer, NW Natural
Stan Price, Northwest Energy Efficiency Council

## Energy Trust board members who regularly attend CAC:

Lauren Shapton, Portland General Electric

Bill Welch, Eugene Water & Electric Board

Steve Weiss, NW Energy Coalition

John Reynolds Dan Enloe

2009 Meeting Dates	CAC Major Discussion Topics					
January 21	2009 program incentive updates (Existing Homes and Mobile Homes); potential Home Electronics program; Energy Trust redesign exercise					
February 18	2008 results; 2009 program incentive updates (Existing Homes, cooperative marketing); Residential Consumer Awareness Study results; City of Portland on-bill financing pilot					
March 11	2009 program incentive updates (Existing Homes, cooperative marketing); Home Energy Review customer interface enhancement and Energy Trust Redesign effort					
April 15	2009 program incentive updates (Production Efficiency); Portland Clean Energy Works Investment Fund pilot update; Home Energy Review customer interface enhancement and Energy Trust Redesign effort					
May 20	2009 program incentive updates (New Buildings); Existing Homes Moderate Income program design; evaluation report on Blue Line energy monitor					
August 12	Path to Net Zero pilot incentives; Savings Within Reach initiative; furnace market transformation; draft Energy Trust Strategic Plan for 2010-2014; evaluations (New Buildings and Existing Buildings evaluation highlights; billing analysis summaries for steam traps and tankless gas water heaters)					
October 14	2010 budget preview; furnace market transformation; Home Energy Solutions strategies for 2010					
November 18	2010 meeting schedule; 2010-2011 budget recap; M&V incentive structure: New Buildings program; recent evaluations and survey results (Existing Buildings, Production Efficiency, customer awareness); updates on free rider and realization rates					

## Renewable Energy Advisory Council

Kyle Davis, Pacific Power

Margie Gardner, Bonneville Environmental Foundation

Troy Gagliano, EnXco

Robert Grott, Northwest Environmental Business Council

Thor Hinckley, Portland General Electric

Ed Kennell, Clean Energy Services

Jeff King, Northwest Power and Conservation Council

Theresa Gibney, Oregon Public Utility Commission

Suzanne Leta Liou, Renewable Northwest Project

Debra Malin, Bonneville Power Association

Alan Meyer, Energy Trust Board of Directors & Weyerhaeuser

Robin Straughn, Oregon Department of Energy

Frank Vignola, Solar Monitoring, University of Oregon

Sandra Walden, Oregon Solar Energy Industries Association

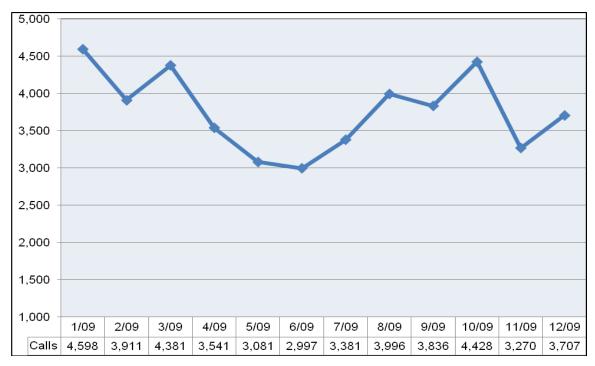
## **Energy Trust board members who regularly attend RAC:**

John Reynolds

2009 Meeting Dates	RAC Major Discussion Topics			
February 18	Telemetry for projects under 10 megawatts; Douglas County Landfill Biopower; hydropower resource assessment			
March 11	OIT Geothermal Project; federal and state stimulus money; changes to Open Solicitation program			
April 15	Budget impacts related to funding large scale solar projects; update on stimulus funding			
May 20	Program updates; legislative updates; Energy Trust redesign briefing			
August 12	Draft strategic plan; Solarize Portland; Patu Community Wind Project; legislative wrap-up			
October 14	Program updates and themes for 2010 action plans; 2010 budget proposal			
November 18	Wave energy update; solar budget update; Strategic Plan comments; effect of changes in QF rates on above market cost projections			

# 2009 Call Volumes

Energy Trust's call center received 45,127 calls in 2009, a 24 percent increase over the 36,449 calls in 2008.



# 2009 Website Visits

Energy Trust's website, <u>www.energytrust.org</u>, received 486,948 visits in 2009, a 17 percent increase over the 416,943 website visits in 2008.



# 2009 Utility Activities Supported by SB 838-authorized Funding

Per agreement with OPUC, Pacific Power and Portland General Electric report their SB 838 program support activities in Energy Trust's quarterly and annual reports. Content was developed by the utilities following a sector outline suggested by Energy Trust. Fonts were changed to be consistent with text in the rest of this report.

## **PACIFIC POWER**

### General

- Attended and led Pacific Power's participation in Portland's Clean Energy Fund (on-bill financing) pilot kick off and planning meetings.
- Met with ETO Director of Operations and Pacific Power Klamath Falls Regional Community Manger to discuss increased energy efficiency outreach in the Klamath Basin area.
- Participated in Portland Mayor Sam Adam's countywide meeting to discuss potential ways for American Recovery and Reinvestment Act (ARRA) recipients to collaborate on federal stimulus dollars geared toward energy efficiency.
- Pacific Power's Energy Trust liaison met with other Pacific Power and PGE staff at Energy Trust to discuss American Recovery and Reinvestment Act (ARRA) funding and potential impacts to available incentives. Also discussed were potential project that may result from the stimulus.
- Pacific Power's Energy Trust liaison met with Energy Trust's Eastern Oregon Outreach Coordinator to discuss outreach opportunities for Pendleton and Wallowa County.
- Pacific Power's Energy Trust liaison participated in the SB 838 process evaluation interview sponsored by Energy Trust.
- Pacific Power's Energy Trust liaison continued to attend and lead Pacific Power's
  participation in several ARRA competitive EECBG grant applications and activities. Moving
  beyond Portland's Clean Energy Works, rural areas in Oregon that will see their own benefits
  are City of Astoria, South Central Oregon Economic Development District (Klamath and Lake
  Counties), Hood River County, and North East Oregon Economic Development District
  (Wallowa County).

### Commercial

- Facilitated ETO presence for an interview on KOBI TV in Medford. Sponsored by the Heart
  of Medford business association, the on-air interview with ETO and Pacific Power's Southern
  Oregon Regional Community Manager focused on helping local businesses become more
  energy efficient.
- Facilitated ETO presence at the Grants Pass Rotary Club meeting. Presentations at the Rotary Club by ETO and Pacific Power's Southern Oregon Regional Community Manager focused on helping local businesses become more energy efficient.
- Facilitated Pacific Power presence ETO's information sessions "Grant-Writing Workshops for USDA Rural Energy for America Grants" in Medford, Redmond and Albany, Oregon.
- Met with ETO, Pacific Power's Willamette Valley Regional Community Manager, and the Dari-Mart General Manager to discuss 17 new energy efficiency projects for Dari-Mart convenience stores throughout Willamette Valley. Also discussed energy efficiency outreach opportunities for ETO and Pacific Power with rural grocers.

- Facilitated an all-day training session for all Pacific Power Account Managers and Regional Community Managers focusing on energy efficiency for commercial and small industrial customers. Presenters were ETO, ETO PDCs, ODOE, USDA and OMEP. The day included in-depth presentations on available programs. Topics included: ETO's industrial program overview; energy efficiency basics for industrial customers; Kaizen Blitz pilot; Industrial Energy Improvement pilot; energy efficiency lighting basics; Oregon Manufacturing Extension Partnership overview; Lean Energy Value Stream Mapping; energy efficiency basics for commercial customers; a sample commercial energy audit tour of the Kennedy School; Rural Energy for America grants and loan guarantees Program (REAP); Oregon's Small Scale Energy Loan Program (SELP); Oregon's business energy tax credit (BETC) and BETC pass through options; and, NEEA's energy efficiency training opportunities for commercial and industrial customers.
- Oregon midsize business customers received a letter highlighting business-targeted programs and services: Pacific Power's new online Business Solutions Toolkit, energy efficiency programs and the Business Solutions team. A set of phone/computer stickers featuring the Business Solutions toll-free number and business Web page was also included.
- Pacific Power's Energy Trust liaison participated on a panel at the annual Oregon Main Street conference on energy efficiency opportunities for Pacific Power communities.
- Pacific Power's Energy Trust liaison participated on a panel at the Columbia Corridor Association on energy efficiency opportunities for Pacific Power customers.
- Pacific Power's Energy Trust liaison met with Cannon Beach's sustainability team to discuss energy efficiency opportunities for residents including brainstorming ideas for a commercial district energy efficiency challenge.
- Pacific Power's Energy Trust liaison coordinated with Pacific Power Economic Development Manager and the Clackamas County Main Street program coordinator on energy efficiency ideas to borrow and implement throughout Pacific Power's Oregon Main Street participants.
- Pacific Power's Energy Trust liaison staffed a Pacific Power booth at the annual League of Oregon Cities meeting in Portland. Information was provided on Energy Trust opportunities for government facilities.
- Pacific Power's Energy Trust liaison delivered the second series of three small to mid-size
  commercial energy efficiency conferences in Pendleton, Albany and Seaside, Oregon.
  Pacific Power collaborated with Energy Trust, Oregon Department of Energy, USDA,
  Business Oregon and Northwest Energy Efficiency Institute, who were tasked with providing
  material and delivering the breakout session presentations. The agendas include:
  - Breakfast
  - General Session
  - First Breakout series (customers selected one)
    - 1. Commercial Buildings
    - 2. Multifamily Properties
    - 3. Tax Credits, Loans and Grants
  - Second Breakout series (customers selected one)
    - 1. Restaurant / Hospitality
    - 2. Production Efficiency
    - 3. Tax Credits, Loans and Grants

On the whole, the participant feedback was excellent! Results from over 220 surveys:

- Email played the most significant factor in getting the word out about the breakfasts, and mailed invitations were a valuable tool as well. Interestingly, 8.1% of participants said they heard about the event through a "referral", indicating that emails and invitations were likely reviewed and then forwarded to another interested customer there by increasing the impression rate.
- Most customers (81.5%) attended to learn about energy efficiency, while 32.0% indicated they were also interested in professional growth and development. This underscores that customers are definitely interested in energy efficiency, want to know how to reduce energy bills, as well see energy efficiency as a way to "go green".
- Most customers (99.5%) were satisfied or very satisfied with the new online registration process, 65.4% of those were very satisfied.
- Most customers (95.1%) were satisfied or very satisfied with the materials provided at the conference, however only 34.1% were very satisfied. Comments from attendees indicate they would have appreciated having print outs of the presentations in addition to the material provided in the folders.
- Nearly all customers (99.5%) were satisfied or very satisfied with the speakers/presenters at the conference, with 38.7% being very satisfied. While this is still an excellent review, some of those who only marked "satisfied" may have done so due to time constraints in the breakout sessions and perceived limited availability in answering all questions.
- Nearly all customers (94.9%) thought the length of the conference was "just right" while 5.1% indicated it was "too short". Again, this shows customers are interested in the topics provided and want to be able to participate/learn more.
- At future events, customers indicated they would like to see more case studies and hands-on opportunities, such as total process overview and project management: audit > paperwork > project start > completion > closing paperwork. They would also like more information on renewable energy options.
- Customers liked the speakers, content, and the concise timing of the event.
   Additionally, they appreciated the breakout format because it kept them interested and engaged.
- Customer feedback on items that can be improved were mostly logistical in nature. Some of the conference rooms were a little too tight and/or too warm. However, the most interesting thing customers frequently mentioned as an improvement is the opportunity to attend more sessions or making the whole conference longer so they can participate/learn more.

Outreach for all six of the Energy Savings Answers breakfasts included:

- Email campaign to over 3,900 commercial emails, including those registered through Pacific Power's website, emails provided by or delivered by local chambers of commerce, emails delivered by local economic development boards, and emails obtained through the public domain.
- Mailed over 4,600 invitations to all small- to mid-size commercial customers.
- Called nearly 1,000 small- to mid-size commercial customers utilizing Portland customer call center resources.

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 Other outreach activities included flyers handed out by the regional community managers at their regular meetings (economic development councils, boards, rotaries, etc). Additionally, USDA field representatives handed out flyers at their regional functions.

### Industrial

- Met with ETO's Industrial Sector Manager and Pacific Power's Economic Development
   Manager about the Oregon Manufacturing Extension Partnership and possible connections
   with Energy Trust programs and pilots.
- Pacific Power's Energy Trust liaison provided support for Pacific Power's regional customer
  conferences in Medford, Bend and Albany, Oregon. The conferences are targeted to
  industrial customers and community leaders. The focus of the conference was on company
  updates, legislative activities impacting the electric utility industry and a focus on the need for
  increased energy efficiency.

### Residential

- Worked on customer reported power quality issues after residential heat pump installations.
   New verbiage will be added to future heat pump promotional material to make sure customers call to verify that their transformer is adequately sized to avoid any flicker issues that occur on motor start up.
- Pacific Power's Energy Trust liaison began conversations with Energy Trust to bring a time
  modified version of the Home Energy IQ training sessions to 14 areas throughout Pacific
  Power's Oregon service area before the end of the year. The target locations are Astoria,
  Lincoln City, Coos Bay, Medford, Grants Pass, Roseburg, Cottage Grove, Albany, Portland,
  Hood River, Bend, Klamath Falls, Pendleton and Enterprise.
- About 920 Oregon residential customers who have Web accounts received an e-mail about Energy Trust's Home Energy Makeover Contest on April 6. This went to customers who have opted-in to receive company communications.
- The new customer awareness campaign, launching the Let's turn the answers on tagline and focusing on energy efficiency and safety, continued this quarter via TV, print and radio.
   Pacific Power customers will be reached from Portland, Medford, Bend, and Eugene demographic marketing areas.
- Additional co-branded energy efficiency TV, radio and print communications ran in Medford and Bend.
- Pacific Power's Energy Trust liaison attended the EEAST (Energy Efficiency and Sustainable Technology) Stakeholders kick off meeting.
- Pacific Power's Energy Trust liaison attended Coos County Energy Group with over 100
  local residents. The group was formed after the Coos County Commissioner attended Pacific
  Power's June Energy Savings Answers breakfast in Grants Pass and wanted to bring the
  same message out to Coos County residents.
- Pacific Power's Energy Trust liaison met with the Coos County Commissioner on energy efficiency opportunities for or residents.
- Pacific Power's Energy Trust liaison facilitated Pacific Power successful execution of an onbill financing agreement with the City of Portland and ShoreBank Cascadia. The agreement is a part of the Clean Energy Works Program and outlines how Pacific Power, the City of Portland and ShoreBank Cascadia enroll Pacific Power customers, share customer data, collect and remit on-bill loan payments, and provide outreach to engage customers.

- Pacific Power's Energy Trust liaison collaborated with the City of Astoria, South Central Oregon Economic Development District (Klamath and Lake Counties), Hood River County, and North East Oregon Economic Development District (Wallowa County), in applying for direct and sub- Energy Efficiency and Conservation Block Grant funds available through ARRA. All districts have indicated they would like to take part in Pacific Power's on-bill financing mechanism for energy efficiency retrofits. Hood River County is planning on doing loan repayments via the tax bill, but would still like to keep the on-bill financing option open with Pacific Power.
- Throughout October, November and December, Pacific Power's Energy Trust liaison and Energy Trust delivered 15 Home Energy IQ workshops in Cottage Grove, Albany (2), Portland, Bend, Klamath Falls, Hood River, Pendleton, Enterprise, Medford, Grants Pass, Roseburg, Coos Bay, Lincoln City and Warrenton, Oregon. The workshops were developed to help residential customers develop a deeper understanding of home-energy use, the effects of appliances and systems on energy bills and how changing simple behaviors can reduce energy consumptions and carbon footprint. Outreach was done through localized emails and notices on both the Pacific Power and Energy Trust websites. Approximately 300 customers registered to attend.

## PORTLAND GENERAL ELECTRIC ENERGY EFFICIENCY ACTIVITIES 2009

### General

PGE continued working to build awareness of and interest in Energy Trust programs through SB838 funds. The Energy Trust's 2009 Oregon Residential Awareness Study showed awareness of Energy Trust programs at 47%, up 11% from the previous year. Utility bill inserts or other direct utility promotional campaigns were the top source of awareness. On the business side, we have no similar Energy Trust study to refer to. We do have PGE business studies conducted in the fall of 2008 and 2009, included in the work papers. These studies show over 60% of business customers are aware of Energy Trust role and its programs.

PGE participated in Energy Trust planning meetings and Conservation Advisory Council meetings. PGE also supported the Northwest Energy Efficiency Task Force Workgroup 4 and its work in researching effective market outreach programs.

### Commercial and Industrial

PGE promotes energy efficiency to business customers through its mass market newsletters. These efforts are not paid for with SB838 funding, but PGE seeks to use these channels in coordination with SB838 activities. PGE sent the "Energize" Newsletter quarterly to approximately 82,500 customers in 2009 and mentioned Energy Trust 22 times. PGE sent the "Business Connections" email newsletter to approximately 4400 customers quarterly and mentioned the Energy Trust 16 times. "Power Report," sent to Key Customers (some of whom are over 1MWa and so do not qualify for SB838 funds), mentioned Energy Trust programs in 4 of 5 newsletters.

In addition, PGE used SB838 funds on three different approaches to promoting Energy Trust programs to business customers:

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<sup>&</sup>lt;sup>10</sup> Final report 2009 Oregon Residential Awareness and Perception Study, Funded by: Energy Trust of Oregon, Submitted to: Energy Trust of Oregon , Prepared by: Research into Action, 11/2009

### 1. Customized Segmented Education & Information (March-July 2009)

PGE's Business Direct Mail Campaign of 2009 focused on targeting business markets with customized mailings that made energy efficiency relevant to their business.

The campaign delivered educational information on areas of potential efficiency opportunities based on segment usage, explained about Energy Trust incentives, and invited customers to call PGE for a free energy consultation. The energy consultations were designed to help customers identify a project, find a contractor and qualify for Energy Trust projects (see outreach section for more details). Each target segment received a "teaser postcard" to attract interest, a follow-up letter with complete information and a follow-up reminder postcard.

30,000 customers received mailings. 118 called for an energy efficiency consultation and to date 39 have been referred to Energy Trust as qualified leads.

## 2. Mass Market Campaign September-December 2009

The Save More, Matter More™ Campaign in 2008 and 2009 reached out to all of PGE's business customers, asking them to make a public commitment to do an energy efficiency project between September of the current and August of the following year. Customers could look at pledges of other participating businesses on the PGE web site.

In reviewing the campaign for repeat in 2009, PGE sought to improve several areas:

- The most frequent obstacle customers encountered was identifying energy saving
  projects so the campaign materials had some suggested pledges and offered energy
  efficiency consultations to all pledging companies Business customers could sign up for
  energy efficiency consultations through PGE's website.
- Energy Trust had added an intake form to its process, and PGE added this to the Save More, Matter More™ Web site.
- To encourage more projects likely to go to Energy Trust, the campaign encouraged customers to pledge capital projects.
- A "spot the sticker" campaign encouraged residential customers to look for Save More, Matter More™ stickers on participating businesses, driving home the business benefit of participation.

173 customers made a pledge during the campaign. PGE performed energy consultations for 67 customers and sent 17qualified leads to Energy Trust to date from among campaign pledgers. A survey of all business customers conducted in the fall of 2009 showed 15% awareness of the campaign. PGE will do another survey of pledgers and is seeking to survey companies that pledged in 2008 and not 2009 to understand the lower pledge rate.

### 3. Personal & Face-to-Face Communication

PGE has had a dedicated outreach position in place since June 2008. This position has been shared by two people, Verlea Briggs as primary and Paula Conway as back-up.

The outreach position has served to make presentations at Chamber events and take contacts made from these or from PGE marketing efforts and facilitate their development into qualified leads for the Energy Trust. Leads were generated from the following activities:

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- Chamber presentations
- Outbound customer calls
- Customer email access (<u>energy.consultation@pgn.com</u>.)
- Response to business marketing.
- Business partnerships (i.e. City of Portland BEST program)
- Customer follow-up after CTS Training and Education classes
- Leveraging internal networks (i.e. Key Customer Managers, Governmental Affairs representatives, Service and Design Consultants, etc.)
- Customer calls to PGE Tualatin Call Center via energy.efficiency@pgn.com

In 2009, the Outreach position had the following results:

- 1326 face to face presentations to business customers
- 223 qualified project leads sent to Energy Trust programs.

At Energy Trust request, PGE and the Energy Trust jointly conducted an Outreach Breakfast on November 11, 2009 in Salem, Oregon. Energy Trust invited previous program participants to the event. PGE invited other of its Salem-area customers to the event. Margie Harris from Energy Trust and Carol Dillin from PGE both spoke at the event; Margie about Energy Trust opportunities, and Carol about the importance of Energy Efficiency in PGE's IRP. This outreach breakfast was popular with customers and will be the model for future efforts.

### Residential

PGE has worked to drive awareness levels and participation for Energy Trust programs. Results from Energy Trust's Oregon Residential Awareness Study 2009<sup>11</sup> indicate the following:

- Unaided awareness for Energy Trust of Oregon went up by 11% to 47% for PGE customers from 2008 to 2009.
- Participation by PGE customers in residential Energy Trust programs is higher than by any
  other electric utility provider benchmarked in the study. PGE's customers participation is 11%
  compared to PacifiCorp's participation rates of 5%.
- The most common way that participants learned first about Energy Trust and energy
  efficiency programs was through utility bill inserts, direct mail, website, or through direct
  contact with utility representatives.

PGE used its mass market channels to promote energy efficiency and Energy Trust programs throughout the year. The following stories and promotions were published in PGE mainstream marketing channels in 2009, that is, they were not paid for with Schedule 110 funds. Update reaches approximately 685,000 residential customer households along with the monthly energy bill.

<sup>11</sup> Final Report 2009 Oregon Residential Awareness and Perception Study, Funded by: Energy Trust of Oregon, Submitted to: Energy Trust of Oregon, Prepared by: Research Into Action, 11/2009.

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## **Update Residential Newsletter**

Month	Promotion/Story			
Jan	PGE/ETO Marathon water heater - flat fee install promotion			
Feb	Umpqua Bank/Energy Trust - energy efficiency loans article			
Mar	Household appliance - general energy efficiency tips			
Apr	PGE/ETO Introduction of refrigerator recycling to PGE customer households			
May	PGE/Energy Trust Heat pump sweepstakes			
Jun	Energy Trust Home Energy Analyzer story			
Jul	Windows purchasing guide			
Aug	George Morlan special price/shipment showerhead promotion			
Sep	Rejuvenation lighting sweepstakes in support of GU24 technology			
Oct	PGE/ETO Heat Pump Sweepstakes			
Nov	High Bill Help - EE-tips			
Dec	Reporting results on lighting sweepstakes & showerhead promotion			

In 2009, electronic marketing channels have been introduced to deliver additional EE-information and promotions to residential customers. The marketing plan for the electronic channels is developed in addition to (and separate from) residential electronic mainstream communication channels. Electronic channels include Home Connections (80,000 readers) and PGE's website (3,000-10,000 visits per day).

### E-channels communications overview 2009

		Viewer impressions		Open		Participate
Month	Promotion	E- newsletter	Web	Read Article	Opened Link	Sign-ups
Mar	Roto-Rooter - Marathon sweepstakes	76k	316k	1.8k	1.7k	1.2k
Apr	Fisher&Paykel - Washer and dryer sweepstakes	78k	280k	.8k	3k	2.1k
Jun	George Morlan - Marathon sweepstakes	84k	313k	1k	1.7k	1.2k
Jul	Mini-split heat pump sweepstakes	85k	329k	1.4k	3.1k	2.2k
Aug	ENERGY STAR refrigerator + recycling	88k	298k	2k	3.8k	2.3k
Sep	Rejuvenation lighting sweepstakes	90k	302k	1k	4k	2.6k

PGE used Schedule 110 funds to enhance basic information provided through residential mass market channels with the following promotions.

- Promoted flat fee installation of energy-efficient Marathon water heaters through Roto-Rooter in January, 2009. Energy Trust offered instant incentives on the product during the promotional period. More than 200 water heaters were sold.
- PGE's refrigerator recycling promotion efforts in April 2009 resulted in a 115% increase in
  the two months following the promotion. Utility bill inserts were the #1 source of awareness
  of the program. In November, PGE again promoted the refrigerator recycling program with a
  bill insert; participation again increased substantially, and in December 76% of all
  participants were PGE customers.

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- PGE promoted energy efficient high performance showerheads in collaboration with George Morlan Plumbing and Energy Trust in August. The promotion yielded more than 6,200 shower head sales during the promotional period, a higher number of showerheads than any other Energy Trust activity. Energy Trust performed a kwh savings analysis and credited the promotion with over 800,000 kwh saved. Because qualifying showerheads are not widely available in PGE's service territory, PGE and Energy Trust are working on expanding showerhead installations and promotions in 2010.
- At the request of CSG, Energy Trust's residential PMC, in late November PGE sent a direct mail to 5000 residential customers with electric heat promoting an "Act Now!" \$100 bonus for customers taking 2 or more qualifying energy efficiency measures by December 31. 112 PGE customers participated by the deadline, over a 2% response rate (1% is considered good for direct mail).
- Delivered energy efficiency messaging and information to attendees at 14 events in 2009:
   Oregon Facilities Sustainable Expo, Maintenance Fair Property Manager Show, NW
   Foodservices Show, Oregon Better Living Show, SAIF Corp Green Fair, Bancorp Tower EE
   Fair, Bureau of Land Management Earth Day event, Lake Oswego Farmer's Market,
   Hillsboro Community Office Energy Fair, Providence Energy Fair, SPECTRUM Property
   Manager Show and Gresham Community Office Energy Fair.