

# **Quarter Four 2005 Report to the Oregon Public Utility Commission**

October 1, 2005 to December 31, 2005

This Energy Trust quarterly report spans the period October 2005 through December 2005, the fourth quarter of the year (Q4). The report addresses progress toward 2005 and 2012 energy saving and generation goals and includes corresponding costs. The report also includes the number of completed projects, the amount of incentives paid, cost-benefit ratios for the three largest Energy Trust programs, and activity highlights from the quarter.

#### I. QUARTERLY HIGHLIGHTS

#### I. General

- Approximately 60% of the annual electric energy savings and 40% of the annual gas savings occurred during the fourth quarter.
- While spending 14% less than the overall energy efficiency budget, Energy Trust achieved 98% of its best case goal for electricity savings and 85% of its best case gas savings goal in 2005.
- Energy Trust easily met the minimum performance measures established by the OPUC for
  energy savings acquisition and levelized cost, administrative costs, an unqualified audit and
  customer satisfaction. Calculated on a 3-year rolling average, renewable energy acquisition in
  2005 was low due to a variety of external factors, including uncertainty of the production tax
  credit, new federal tax credits and higher costs for utility-scale wind energy acquisition.
- Demand for two of the more established Energy Trust programs, Building Efficiency and Production Efficiency, hit unprecedented levels during the fourth quarter, clearly exceeding available funds. New ways of managing funds more tightly, including through a reservation system, will take effect March 1, 2006.
- Electricity efficiency projects completed during the quarter are expected to save 21.66 average megawatts at an estimated cost of \$0.61 million per average megawatt. Preliminary year-end total is 35.93 aMW approximately 117% percent of the conservative target for 2005 and a 50% increase over year-end 2004.
- Gas efficiency projects completed during the quarter will save 459,463 annual therms at a cost of \$3.94 per annual therm. Preliminary year-end savings of 1,519,347 annual therms represent approximately 115% percent of the conservative target for 2005 and are more than double the annual therms saved in 2004.
- Energy Trust and PGE signed a \$12.5 million Master Agreement to reserve funds for future PGE renewable energy projects over the next two years. Energy Trust and Pacific Power exchanged drafts of a similar agreement with the intention of completing negotiations in early 2006.
- Joint marketing and co-promotion efforts with all three utilities continue to work effectively, as does collaboration with the Oregon Department of Energy.
- Public purpose revenues received were \$12.1 million for the quarter and total expenditures were \$15.9 million. For the quarter, program expenditures are \$15.4 million under budget due to a number of factors. The largest component of this variance is in utility scale, representing about \$14.4 million in variance. Of that variance, however, \$12.5 million has been designated for use under the PGE master agreement. Lack of available turbines and new

- federal and state tax credits taking effect in 2006 (which delayed projects) have also contributed to a shortfall in spending.
- A total of \$10.3 million in incentive payments was made during the quarter, compared to \$6.3 million in Q1, \$10.4 million in Q2 and \$6.5 million in Q3.
- Overall spending in 2005, according to preliminary year-end financial results, reflects spending at about 65% of budgeted expectations.
- The Blue Heron Paper industrial process project completed in December. This project commenced in 2004 and accounts for 106 million megawatt hours of savings.

## 2. Residential programs

- Internet users completed 2,870 level-1, 1,687 level-2, and 104 level-3 online Home Energy Analyses.
- Energy Trust rebates helped fund the purchase of 5,884 energy-efficient clothes washers, installed in 2,278 homes with electric hot water and 3,606 homes with gas hot water.
- Energy-efficient measures such as sealed ducts, insulation, high-efficiency space heating
  equipment and energy-efficient windows were installed in 2,695 single-family homes, 947
  multifamily units, and 111 manufactured homes. Of these, 1,342 homes received electric
  efficiency measures, 1,073 received gas efficiency measures, with 1,338 sites saving both gas
  and electricity.
- Solar water heating systems were installed in 15 homes with electric hot water and 1 home with gas hot water.

# 3. Commercial programs

- High-efficiency measures such as energy-efficient lights and HVAC equipment were installed in 1,127 commercial buildings resulting in average incentive payment per site of \$3,029.49. Of this total, 400 buildings received electric efficiency measures, 655 buildings received gas efficiency measures, and 72 buildings saved both gas and electricity.
- Solar water heating systems were installed in 2 commercial sites with gas hot water.
- A total of 24 highly efficient new commercial buildings were completed this quarter, with an average incentive payment per site of \$10,682.66.
- Since 2002 Energy Trust has operated an award-winning incentive program for retrofitting traffic signals to LED signals. Research and program results indicate the LED traffic signal market in Oregon has been transformed due to the success of this program and incentives are no longer needed to encourage signal system operators to install LEDs. This program will not be offered in 2006.
- In the summer of 2005, Building Efficiency initiated a restaurant dishwasher pre-rinse sprayer Initiative with the goal of installing 800 sprayers. By year-end 860 sprayers were installed serving traditional and fast food restaurants, schools, business cafeterias, and coffee shops.

#### 4. Industrial programs

• Electric energy-saving projects were completed at 93 manufacturing firms, with an average incentive payment per site of \$31,400.

## 5. Renewable energy programs

• Solar electric systems were installed in 14 homes and 4 commercial buildings. Another 33 were approved for a total of 43 installations pending by the end of 2005.

- I new anemometer was installed for a total of 14 in Oregon since 2003. Three new, larger
  anemometers were purchased as part of a cost-share for federal grants for community wind
  feasibility studies.
- The Gresham wastewater 363 kW biopower project came on line.
- Five finalists from the 2005 Biopower RFP were selected, including a wastewater treatment plant in PGE territory (I.I aMW) and four sawmills in Pacific Power territory (I6.67 aMW total), and negotiations with each of them were begun.
- Leveraging the new tax credits, Energy Trust has lowered the residential and commercial solar electric incentives by approximately 1/3, reducing program cost while offering a higher total incentive package to more customers.

# 6. Revenues and expenditures

- \$12.1 million in public purpose funds were received during the quarter, with expenditures at \$15.9 million.
- A total of \$ 10.3 million in incentives were paid.
- Administrative and program support costs are at the 6.8% level based on preliminary year end figures.

## 7. OPUC performance measures

 Performance against the following 2005 Performance Measures agreed upon in September 2004 will be reported in the 2005 annual report.

Category	Measures
Energy Efficiency	At least 20aMW computed on 3-year rolling avg.
	Levelized savings at \$0.02/kWh
Natural Gas	700,000 therms computed on 3-year rolling avg.
	Levelized cost not to exceed \$0.30/therm
Renewable Resources	At least 15aMW
Financial Integrity	Unqualified financial audit
Administrative and Program Support Costs	Keep below 11% of revenues
Customer Satisfaction	Achieve reasonable rates
Benefit/Cost Ratios	Compare to ratios from 2004 reported in #8 below

## 8. Benefit-cost ratios for 2004 (year-end data)

Program	Utility system benefit-cost ratio	Societal benefit-cost ratio
I. Home Energy Savings	2.8	1.7
2. Production Efficiency	2.7	2.8
3. Building Efficiency	3.5	1.6

#### II. TABLES

#### I. Revenues

Source	Actual revenues received Q4	<b>Budgeted revenues Q4</b>		
Portland General Electric	\$ 6,523,276	\$ 6,513,663		
PacifiCorp	\$ 4,330,732	\$ 4,368,027		
NW Natural	\$ 1,295,371	\$ 1,863,599		
Total	\$ 12,149,379	\$ 12,745,289		

# 2. Expenditures

Туре	Actual Expenditures Q4	Budgeted Expenditures Q4
Energy Efficiency programs	\$ 14,603,478	\$ 13,499,995
Renewable Resources programs	\$ 800,351	\$ 17,053,859
Administration	\$ 541,106	\$ 776,004
Total	\$ 15,944,935	\$ 31,329,858

#### 3. Incentives Paid

	Energy Efficiency			Renewabl	Total	
	PGE	Pacific Power	NW Natural	PGE	Pacific Power	
QI	\$ 3,053,615	\$ 2,051,347	\$ 926,979	\$ 73,510	\$ 157,058	\$ 6,262,509
Q2	\$ 6,353,002	\$ 2,999,634	\$ 833,628	\$ 88,543	\$ 91,274	\$ 10,366,081
Q3	\$ 3,653,330	\$ 1,913,103	\$ 660,938	\$ 88,761	\$ 218,758	\$ 6,534,890
Q4	\$ 5,420,072	\$ 3,495,009	\$ 960,829	\$ 193,746	\$ 235,188	\$ 10,304,844
Total	\$ 18,480,019	\$ 10,459,093	\$ 3,382,374	\$ 444,560	\$ 702,278	\$ 33,468,324

# 4. Savings and Generation

**Electric efficiency savings.** In the fourth quarter of 2005, energy efficiency programs achieved 68% of the 2005 conservative goal of 31.86 aMW. Cumulatively since January 2005, electric efficiency programs have achieved 117% of this goal. Since March 1, 2002, these programs have cumulatively saved 87.63 aMW, or 29% of the Energy Trust's 2012 goal.

Electric Efficiency Savings Q4 2005	PGE aMW	Pacific Power aMW	Total Savings* aMW	Expenses	mil \$ / aMW	Levelized Cost/kWh
Residential	1.38	0.89	2.27	\$ 3,182,421	\$ 1. <del>4</del> 0	\$ 0.014
Commercial	2.31	1.07	3.38	\$ 4,963,441	\$ 1. <del>4</del> 7	\$ 0.015
Industrial	13.39	2.62	16.01	\$ 5,139,940	\$ 0.32	\$ 0.004
Total Energy Efficiency Programs	17.08	4.58	21.66	\$ 13,285,802	\$ 0.61	\$ 0.008

Gas efficiency savings. In the fourth quarter of 2005, efficiency programs saved 459,463 annual therms of natural gas, representing 35% of the conservative goal 2005 goal of 1,316,000 million annual therms. Since January 2005, the programs have achieved 115% of this goal. Since gas programs began in 2003, cumulative savings of 2,393,377 annual therms have been realized, accounting for 13% of the 2012 goal.

Gas Efficiency Savings Q4 2005	NWN Therms	Expenses	\$ / Therm	Levelized Cost/Therm
Residential	240,209	\$ 1,343,059	\$ 5.59	\$ 0.329
Commercial	219,254	\$ 467,462	\$ 2.13	\$ 0.185
Industrial				
Total Energy Efficiency Programs	459,463	\$ 1,810,521	\$ 3.94	\$ 0.270

**Renewable energy generation.** In the fourth quarter of 2005, renewable energy generation projects completed account for 1.80% of the 2005 goal of 26.60 aMW. This primarily reflects the lack of activity in utility-scale projects requiring Energy Trust above-market cost subsidy during the quarter.

Actual	PGE aMW	Pacific Power aMW	Total Generation aMW	Q4 2005 Expenses	mil \$ /	Levelized Cost/kWh
Utility Scale	0.0000	0.0000	0.0000	\$ 57,141	-	-
Solar Photovoltaic	0.0089	0.0056	0.0145	\$ <del>4</del> 01,625	\$ 27.83	\$ 0.214
Wind	0.0000	0.0000	0.0000	\$ 90,451	-	-
Open Solicitation	0.0000	0.0016	0.0016	\$ 71, <del>44</del> 6	\$ 44.93	\$ 0.340
Biopower	0.4243	0.000	0.4243	\$ 227,949	\$ 0.54	\$ 0.004
Total Renewable						
Programs	0.4332	0.0072	0.4404	\$ 848,612	\$ 1.93	\$ 0.015

## 5. Projects completed this quarter

Energy Efficiency Installed Projects	Total	Sites by M	1easures	Installed
	Sites	Electric-	Gas-	Both
		only	only	
Residential				
Single family homes retrofitted	2,805	577	1,008	1,220
Multifamily units retrofitted	1,639	1, <del>4</del> 60	179	-
Efficient Home Products rebates	5,525	2,2 <del>4</del> 7	0	3,278
Home Energy Reviews conducted	1,826	387	1, <del>4</del> 39	-
Efficient New Homes constructed	127	14	8	105
Manufactured homes retrofitted	159	155	4	-
SHOW CFL packages mailed	1 <del>4</del> 5	1 <del>4</del> 5	-	-
HEA CFL packages mailed	72	72	-	-
Residential Solar Hot Water installations	10	9	I	-
Commercial sites treated				
Building Efficiency sites treated	970	867	14	89
New Building Efficiency sites treated	35	29	2	4
Solar Hot Water Commercial installations	2	-	2	-
Industrial sites treated	257	257	-	-
TOTAL EFFICIENCY	13.572	6,218	2,657	4,697
Renewable Energy Installed Projects				
Utility-scale projects installed				
Solar Electric residential installations	14	14		
Solar Electric commercial installations	4	4		
Community wind projects installed				
Biopower projects installed	I			
Open Solicitation projects installed	1			
TOTAL RENEWABLES	19	19		

Table 5 and corresponding information in the narrative refer to numbers of efficiency and renewable energy projects. We define "projects" to be completed installations or services at one location ("site"), 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 project.