

# Quarter Four 2006 Report to the Oregon Public Utility Commission

October 1, 2006 through December 31, 2006

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This Energy Trust quarterly report covers the period October 1, 2006, through December 31, 2006, the fourth quarter of the year (Q4). The report addresses progress toward 2006 and 2012 energy saving and renewable energy generation goals and includes corresponding costs. Also included is the number of completed projects this quarter, the amount of incentives paid during the quarter, year-to-date cost-benefit ratios for the six largest Energy Trust programs and quarterly activity highlights.

## I. QUARTERLY HIGHLIGHTS

### I. General

- All numbers contained in this report are based on preliminary year-end unaudited results. There will be additional expenditures and minor changes to savings and renewable energy generation figures provided in the final audited year-end report.
- Approximately 49% of 2006 electric savings and 43% of gas savings were logged during the fourth quarter. In 2005 the percentages were 60% for electric savings and 40% for gas.
- The preliminary year-end acquisition of 25.2 average megawatts in electric energy savings exceeds our 2006 best case goal by 10%, though spending totaled only 90% of budget. Cumulative electricity savings of 121.6 average megawatts represents 41% of our 2012 goal.
- Preliminary gas savings for the year were 2.4 million annual therms, short of the 2.6 million annual therm conservative goal. We believe this performance results from setting very ambitious goals in 2006 driven by our intention to spend down gas funds. To date our programs have saved 4.6 million annual therms of natural gas.
- Overall electric efficiency expenditures for the quarter were within 6.7% of budget. Projects completed during the quarter are expected to save 12.3 average megawatts at an estimated cost of just under one million per average megawatt.
- Gas expenditures continued to be below budget, by about 17% for the fourth quarter and 28% year to date. Projects completed during the quarter are expected to save 1,056,272 annual therms at a cost of \$2.79 per annual therm.
- Work continued with Portland General Electric (PGE) to evaluate the above-market costs of the proposed Biglow Canyon 125 MW wind project in Sherman County.
- A Letter of Intent to fund the Mar-Lu 4.5 MW community wind project near Arlington, Oregon, was finalized.
- Negotiations continued on the 10 MW Gordon Ridge community wind project in Sherman County.
- In total, renewable energy projects committed for completion in 2007 are expected to generate 45 average megawatts.
- A number of renewable projects were delayed because of uncertainty regarding the production tax credit extension and a shortage of available wind turbines.

- Revenues were above budget by \$410,000 for the quarter, with 52% of this excess from PGE. Total quarterly expenditures were \$15.8 million. Overall spending rates for the quarter were below budget, with the single largest variance in renewable energy projects.
- \$10.4 million was paid in incentives, with \$4.5 million transferred from board-designated funds into an escrow account in the fourth quarter.

## 2. Residential programs

- During the fourth quarter Energy Trust incentives helped fund the purchase of 6,596 energy efficient clothes washers, installed in 2,907 homes with electric hot water and 3,689 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 2,475 single family homes, 1,685 multifamily units and 168 manufactured homes. Of these, 1,913 homes received electric efficiency measures and 2,139 received gas efficiency measures, with 276 sites saving both gas and electricity.
- Energy Trust incentives helped fund the construction of over 600 efficient new homes, 209 with electricity-saving measures, 62 with gas-saving measures, and 330 with both electricity- and gas-saving measures. Incentives helped purchase 114 electrically heated and 7 gas-heated new efficient manufactured homes.
- Solar water heating systems were installed in 26 homes with electric hot water and 17 homes with gas hot water.
- Electric savings from residential projects represent 20% of total savings acquired in 2006.
- Technical trainings with manufactured homes salespeople met the goal of all retail locations being trained by year end.
- Efficient Home Products worked with Sears on an ENERGY STAR® event sponsored in conjunction with National ENERGY STAR and Northwest Energy Efficiency Alliance on October.
- The ENERGY STAR Northwest program presented “House as a System” workshops in Bend and Portland in partnership with Earth Advantage and the Central Oregon Green Building Council, attracting over 100 attendees.
- The ENERGY STAR Northwest program trained 50 realtors on the benefits of ENERGY STAR and green building, offering a one-hour continuing education credit.
- The Savings with a Twist CFL buy-down promotion sold 283,524 CFLs in over 130 non-“big box” retail locations in Energy Trust territory, equal to nearly 25% of regional sales.

## 3. Commercial programs

- During the fourth quarter, high efficiency measures including energy efficient lights and HVAC equipment were installed in 644 commercial buildings, resulting in average incentive payments per site of \$1,835. Of this total, 264 buildings received electric efficiency measures, 33 buildings received gas efficiency measures, and 347 buildings saved both gas and electricity. Solar water heating systems were installed at two commercial sites.
- A total of 143 highly efficient new commercial buildings were completed this quarter, with an average incentive payment per site of \$10,514.
- The five average megawatts saved through commercial sector projects in 2006 represents 20% of electric savings for the year. Commercial therm savings account for 54% of gas savings for the year.
- BetterBricks and Energy Trust co-sponsored "Creating Financial Value through High Performance Building" in Portland, attracting over 100 building professionals. During the quarter,

BetterBricks Professional Education conducted or participated in nine public events in Oregon attended by over 300 people.

#### **4. Industrial programs**

- Electric energy-saving projects were completed at 90 manufacturing firms, with an average incentive payment per site of \$35,400.
- The 7.8 average megawatts saved by Production Efficiency projects in 2006 represents nearly one-third of overall efficiency savings for the year.
- The housing market slowdown has reduced the demand for wood products and, consequently, the availability of capital investment dollars for efficiency projects in the pulp and paper industry. In response, the program evaluated and proposed incentive changes designed to fill the pipeline for future projects.
- The Industrial Efficiency Alliance, coordinated by the Northwest Energy Efficiency Alliance, is working with a number of high profile industrial customers, including Norpac-Brooks, New Seasons Foods, Sabroso Bear Creek Operations and Weyerhaeuser, to identify potential participants for its Continuous Energy Improvement initiative.

#### **5. Renewable energy programs**

- Solar electric systems were installed in 32 homes and 8 commercial buildings during this quarter.
- The biopower program signed agreements to share the cost of feasibility studies with Hood River County, the Coquille Tribe, and Clean Water Services.
- A partnership with the Oregon Dairy Farmers Association was initiated to systematically explore dairy-based energy projects; and work began with the Oregon Department of Agriculture to develop collaborative solutions to the growing issue of animal byproduct disposal.
- Efforts to attract funding from the U.S. Department of Agriculture for feasibility studies and equipment grants for biopower or other renewable projects were expanded.
- The Portland Office of Sustainable Development collaborated with Energy Trust in developing their Solar Now! campaign to increase solar energy use in the city.
- Through joint Energy Trust, Oregon Solar Energy Industries Association and Oregon Department of Energy efforts, Oregon was one of six states selected by the Interstate Renewable Energy Council to host training for building inspectors on how to permit and inspect solar electric systems.
- The nonprofit Northwest Sustainable Energy for Economic Development (Northwest SEED) was engaged to survey small wind energy programs in other states; results will inform development of a small wind program for Oregon.
- The Open Solicitation program committed to co-funding hydropower feasibility studies with Astoria, the Talent Irrigation District, and Hood River County.
- Staff intensified efforts for small-scale renewable projects to attract additional capital along with more replicable and attractive financing models.

#### **6. Revenues and expenditures**

- \$13.2 million in public purpose funds were received during the quarter, with expenditures at \$15.8 million.
- A total of \$10.4 million in incentives was paid.

#### **7. OPUC performance measures**

- Performance against the following 2006 Performance Measures will be reported in the Energy Trust 2006 annual report.

Category	Measures
Energy Efficiency	At least 20 aMW computed on 3-year rolling average Levelized cost of not more than two cents per kWh
Natural Gas	700,000 therms computed on 3-year rolling average Levelized cost of not more than 30 cents per therm
Renewable Energy	At least 15aMW At least 9 aMW from projects in utility Integrated Resource Plans At least 3 aMW from a variety of small-scale projects Both computed on 3-year rolling average
Financial Integrity	Unqualified financial audit
Administrative & Program Support Costs	Keep below 11% of revenues
Customer Satisfaction	Demonstrate reasonable customer satisfaction rates through program evaluation customer surveys; report complaint statistics
Benefit/Cost Ratios	Compare to ratios from 2005 reported in #8 below

**8. Benefit-cost ratios for 2005 (year-end data)**

Program	Utility system benefit-cost ratio	Societal benefit-cost ratio
1. Efficient Home Products	2.4	3.8
2. Home Energy Savings	2.9	1.3
3. Building Efficiency	3.5	1.5
4. New Building Efficiency	2.5	1.4
5. Production Efficiency	4.1	2.8
6. NW Energy Efficiency Alliance	10.3	5.5

**II. TABLES**

**I. Revenues**

Source	Actual revenues received Q4	Budgeted revenues Q4
Portland General Electric	\$6,946,082	\$6,734,371
Pacific Power	4,405,207	4,396,725
NW Natural	1,459,959	1,343,163
Cascade Natural Gas	209,170	136,951
Avista	131,783	131,250
Total	\$13,152,201	\$12,742,460

**2. Expenditures**

Type	Actual Expenditures Q4	Budgeted Expenditures Q4
Energy Efficiency programs	\$14,555,845	\$16,102,036
Renewable Energy programs	620,818	9,441,354
Administration	582,253	683,750
Total	\$15,758,916	\$26,227,140

**3. Incentives Paid**

	Energy Efficiency					Renewable Energy		Total
	PGE	Pacific Power	NW Natural	Cascade Natural Gas	Avista	PGE	Pacific Power	
Q1	\$2,364,680	\$1,682,363	\$1,077,337	-	-	\$79,167	\$112,425	\$5,315,972
Q2	2,211,896	2,244,505	942,537	-	-	87,321	210,745	5,697,004
Q3	1,761,118	2,383,748	903,501	7,374	461	112,181	150,010	5,318,393
Q4	4,227,334	4,230,668	1,580,594	72,391	8,463	167,067	130,305	10,416,822
Total	\$10,565,028	\$10,541,284	\$4,503,969	\$79,765	\$8,924	\$445,736	\$603,485	\$26,748,191

**4. Savings and Generation**

**Electric efficiency savings.** In the fourth quarter of 2006, energy efficiency programs saved 12.27 average megawatts, representing 54% of the 2006 year-end best case goal of 22.9 average megawatts. Since March 1, 2002, these programs have cumulatively saved 121.6 average megawatts, representing 41% of Energy Trust’s 2012 goal.

Electric Efficiency Savings Q4 2006	PGE aMW	Pacific Power aMW	Total Savings* aMW	Expenses	mil \$ / aMW	Levelized Cost/kWh
Residential	3.62	2.42	6.04	\$3,251,716	0.54	0.5¢
Commercial	1.97	0.46	2.43	3,412,064	1.40	1.3¢
Industrial	1.62	2.18	3.8	5,466,853	1.44	1.6¢
Total Energy Efficiency programs	7.21	5.06	12.27	\$12,130,633	0.99	1.0¢

**Gas efficiency savings.** In the fourth quarter of 2006, efficiency programs saved 1,056,272 annual therms of natural gas, representing 40% of the conservative goal 2006 goal of 2.6 million annual therms. Since gas programs began in 2003, cumulative savings of 4.6 million annual therms have been realized, accounting for 24% of the 2012 goal.

Gas Efficiency Savings Q4 2006	NWN Therms	Cascade Natural Gas	Avista	Expenses	\$ / Therm	Levelized Cost/ Therm
Residential	310,594	20,277	4,148	\$1,969,991	5.88	26.1¢
Commercial	706,868	14,385		975,853	1.35	10.6¢
Industrial						
Total Energy Efficiency Programs	1,017,462	34,660	4,148	\$2,945,844	2.79	17.8¢

**Renewable energy generation.** In the fourth quarter of 2006, renewable energy generation projects completed account for 6% of the 2006 goal of 32.98 average megawatts. Committed projects to be built in 2007 are expected to generate 45 average megawatts, representing 30% of Energy Trust’s 2012 goal.

Actual	PGE aMW	Pacific Power aMW	Total Generation aMW	Q4 2006 Expenses	mil \$ / aMW	Levelized Cost/kWh
Utility Scale	0.0	0.0	0.0	\$74,504	0.00	N/A
Solar Photovoltaic	0.01	0.01	0.02	402,395	24.61	19.1¢
Wind	0.0	0.0	0.0	40,792	0.00	N/A
Open Solicitation	0.0	0.0	0.0	63,607	0.00	N/A
Biopower	0.0	1.9	1.9	101,141	0.05	0.0¢
<b>Total Renewable Programs</b>	<b>0.01</b>	<b>1.91</b>	<b>1.92</b>	<b>\$682,439</b>	<b>0.36</b>	<b>0.3¢</b>

**5. Projects completed this quarter**

Energy Efficiency Installed Projects	Total Sites	Sites by Measures Installed		
		Electric- only	Gas- only	Both
<b>Residential</b>				
Efficient Home Products appliance rebates	6,596	2,907	0	3,689
Efficient New Home enhancements	178	20	100	58
Efficient New Homes constructed	601	209	62	330
Efficient New Manufactured Homes purchases	121	114	0	7
Home Energy Reviews conducted	1,267	639	75	553
Manufactured Homes refitted	168	162	3	3
Multifamily units retrofitted	1,685	1,397	28	260
Promotional CFLs provided	205,636	205,636	0	0
Residential Solar Hot Water installations	43	26	17	0
State Home Oil Weatherization program CFL packs mailed	516	516	0	0
Single family homes retrofitted	2,475	354	2,108	13
<b>Commercial sites treated</b>				
Building Efficiency sites treated	644	264	33	347
New Building Efficiency sites treated	143	70	6	67
Solar Hot Water Commercial installations	3	0	3	0
<b>Industrial sites treated</b>	<b>90</b>	<b>90</b>	<b>0</b>	<b>0</b>
<b>TOTAL EFFICIENCY</b>	<b>220,166</b>	<b>212,404</b>	<b>2,435</b>	<b>5,327</b>
<b>Renewable Energy Installed Projects</b>				
Utility Scale projects installed	0	0	0	0
Solar Electric residential installations	32	32	0	0
Solar Electric commercial installations	8	8	0	0
Community Wind projects installed	0	0	0	0
Biopower projects installed	2	2	0	0
Open Solicitation projects installed	0	0	0	0
<b>TOTAL RENEWABLES</b>	<b>42</b>	<b>42</b>	<b>0</b>	<b>0</b>

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 projects.