



## Energy Efficiency

Staff has reviewed and discussed with Energy Trust staff the 2006 draft action plan and budget for energy efficiency. We understand that further changes are being made based on comments from interested parties. Following are highlights of the draft plan and budget:

### 2006 Energy Efficiency Goals (Electric)

<b>Residential Programs</b>	<b>Savings</b>	<b>Cost per aMW</b>
Home Energy Savings	0.75-1.0 aMW	\$4.3-5.8 million
Efficient Home Products	1.78-2.37 aMW	1.4-1.8 million
Efficient New Homes	0.61-0.81 aMW	3.5-4.7 million
Residential Market Transformation (Alliance)	2.75-3.67 aMW	0.3-0.4 million
Building Tune-Up & Operations	0.35-0.47 aMW	1.4-1.9 million
New Building Efficiency	1.07-1.42 aMW	2.7-3.6 million
Building Efficiency	1.38-1.84 aMW	2.6-3.4 million
Commercial Market Transformation (Alliance)	0.28-0.37 aMW	4.0-5.4 million
Production Efficiency	4.79-6.39 aMW	1.9-2.5 million
Industrial Market Transformation (Alliance)	0.39-.052 aMW	1.6-2.2 million

### 2006 Energy Efficiency Goals (Gas)

<b>Residential Programs</b>	<b>Annual Therms (Conservative)</b>	<b>Annual Therms (Best Case)</b>	<b>Cost per Therm</b>
Home Energy Savings	785,553	1,047,404	\$5.39-7.19
Efficient Home Products	117,427	156,569	5.25-7.00
Efficient New Homes	228,509	304,679	7.60-10.13
Building Tune-Up & Operations	117,847	157,129	1.56-2.08
New Building Efficiency	655,090	873,453	1.64-2.18
Building Efficiency	647,337	863,116	2.01-2.68

2006 Draft Budget (Electric and Gas Combined)

<b>Residential Programs</b>	<b>Budget</b>
Home Energy Savings	\$9.9 million
Efficient Home Products	4.1 million
Efficient New Homes	5.2 million
Residential Market Transformation (Alliance)	1.2 million
Building Tune-Up & Operations	0.9 million
New Building Efficiency	5.3 million
Building Efficiency	6.5 million
Commercial Market Transformation (Alliance)	1.5 million
Production Efficiency	11.9 million
Industrial Market Transformation (Alliance)	0.9 million

Levelized Cost per kWh (Electric)

<b>Residential Programs</b>	<b>Levelized Cost per kWh (Cents)</b>
Home Energy Savings	2.5-3.4
Efficient Home Products	1.9-2.5
Efficient New Homes	2.8-3.7
Residential Market Transformation (Alliance)	0.5-0.7
Building Tune-Up & Operations	3.9-5.2
New Building Efficiency	2.1-2.8
Building Efficiency	2.5-3.3
Commercial Market Transformation (Alliance)	3.9-5.1
Production Efficiency	2.4-3.2
Industrial Market Transformation (Alliance)	2.2-2.9

Levelized Cost per Therm (Gas)

<b>Residential Programs</b>	<b>Levelized Cost per Therm (Cents)</b>
Home Energy Savings	28-37
Efficient Home Products	44-59
Efficient New Homes	44-59
Building Tune-Up & Operations	53-71
New Building Efficiency	11-15
Building Efficiency	20-27

The 2006 budget for energy efficiency reflects greater demand for Energy Trust services than in prior years. Staff believes that the Energy Trust has to make significant choices in its budgeting process and reduce some programs due to funding constraints. Trade allies expressed concerns about these proposed reductions at the November 2, 2005, board meeting of the Energy Trust. Staff believes that the Energy Trust is trying to be responsive and will be making adjustments to its budgeting process and procedures to better manage expectations as circumstances change. Staff believes that the Trust can more effectively manage this by devising a system that informs its trade allies of budget constraints, prior commitments and obligations on an ongoing basis.

The 2006 budgets for some programs, such as the Home Energy Savings and Building Efficiency programs, are relatively unchanged from the forecasted levels for 2005. The budgets for the New Building Efficiency and the Efficient New Homes programs have been ramped up due to strong demand and the likelihood of lost opportunities without timely funding. There has been a significant reduction of funding for the Production Efficiency Program between the forecasted 2005 budget and projected 2006 budget primarily due to budget constraints. The 2006 cost for Production Efficiency projects is expected to be high due to higher incentive levels from as far back as 2004 that will be paid out during 2006.

Staff notes that levelized costs for a number of the electric and gas efficiency programs are higher than the Commission's performance measures. The Commission's levelized life-cycle cost measures (2 cents per kWh for electric and 30 cents per therm for gas) are not on a programmatic basis but are for efficiency programs as a whole. The aggregated costs of the efficiency programs in 2006 are projected to be between 1.8 cents and 2.4 cents per kWh for electric, and 23 cents and 31 cents per therm for gas. Staff has had a number of conversations with Energy Trust staff and has been assured that they are fully cognizant of the need to try to meet the Commission's performance measures. Given that the Commission expects the Trust to make every effort to meet these measures, and that a number of programs in the 2006 budget are projected to exceed the levelized cost measures specified, staff believes that the Trust should leave

flexibility in its planning. Specifically, the Trust should make adjustments to its programs during the fiscal year if it finds that the low-cost measures are not coming in at the expected cost.

Staff also notes that the Energy Trust will be employing three full-time employees (FTEs). One coordinator is being added to assist with the Home Energy Saving, Efficient Home Products and Efficient New Homes programs. The Trust believes that the program manager is unable to efficiently handle the volume of work in these areas without assistance. The Energy Trust has also hired on as FTEs two information technology (IT) specialists who have been working as consultants on the FastTrack system. The Trust believes that these IT specialists have developed valuable knowledge of the system that will be difficult to replace. By making them FTEs, the Trust expects to save \$40,000 after all benefits are included. Staff recognizes the rationale for the three new FTEs.

### **Renewable Resources**

Following are highlights of the Energy Trust's 2006 draft action plan and budget for renewable resources:

<b>Program</b>	<b>Generation</b>	<b>Levelized Cost per kWh</b>	<b>Budget</b>
Utility Scale	30-70 aMW	\$0.002-0.005	\$20.2 million
Biopower	2.3-3.1 aMW	0.009-0.012	3.4 million
Solar Electric	0.07-0.10 aMW	0.217-0.289	2.7 million
Community Wind	0.30-1.0 aMW	0.017-0.057	2.1 million
Open Solicitation	0.05-0.07 aMW	0.254-0.338	1.9 million

Commission staff indicated at the October 19, 2005, Renewable Advisory Council meeting that it believed too little funding for PacifiCorp's service area was allocated to the most cost-effective renewable resources – utility-scale projects, typically wind. Staff also questioned the level of funding for programs with the highest cost per average megawatt.

Only 35% of the draft 2006 budget and 24% of the draft 2007 budget (30% over two years) for PacifiCorp's service area is for utility-scale projects. By contrast, the budget for utility-scale projects in Portland General Electric's (PGE's) service area is 76% in 2006 and 35% in 2007 (65% for the two years). The disparity is only in part because of the Energy Trust's earlier funding of the Combine Hills wind project.

Biopower accounts for 24% of the proposed budget for 2006 and 40% for 2007 (31% over two years) for PacifiCorp, compared to only 7% in 2006 and 37% in 2007 (16%

over two years) for PGE. Similarly, solar takes up 20% of the 2006 budget and 18% of the 2007 budget (19% over two years) for PacifiCorp, compared to only 6% in 2006 and 12% in 2007 (7% over two years) for PGE. Community Wind accounts for 12% of the budget over two years for PacifiCorp, compared to 7% for PGE. Finally, 8% of the budget in PacifiCorp's service area is for the Open Solicitation program over the two years, versus 5% in PGE's service area.

Energy Trust staff noted that PacifiCorp's service area offers greater opportunities to achieve diversity in the types of renewable resources (wind, solar, etc.) the Energy Trust helps acquire statewide. While staff expressed support for maintaining a diversity of programs, we noted that in reviewing action plans and budgets, the Commission looks at how much renewable energy would be acquired in each service area, not just statewide, in order to achieve good results for ratepayers of each utility. Therefore, balancing programs statewide should not be the Energy Trust's only consideration. Programs also must be balanced within each service area.

PacifiCorp raised similar issues regarding funding for its service area. The company recommended a reduction in the amount of funding for the Energy Trust's Open Solicitation Program and the Community Wind Program. The Open Solicitation Program allows the Energy Trust to fund projects when they do not fit into one of the established programs. The Community Wind Program seeks to develop small clusters of large wind turbines in communities throughout the state. PacifiCorp states that such budget adjustments would make the allotment of funds for utility-scale projects more equitable between PGE and PacifiCorp.

On November 7, 2005, Energy Trust staff responded to these concerns by providing to the Renewable Advisory Council an alternative budget scenario for comment. Energy Trust staff is not recommending these cuts and asked for written comments on both the initial proposed budget it supports, as well as the alternative budget, for discussion at the November 16, 2005, Council meeting.

The alternative budget is responsive to comments from Commission staff and PacifiCorp. Compared to the budget Energy Trust staff recommends, the alternative budget reduces funding for more costly programs that do not hold promise of lowering costs for renewable resource projects in Oregon anytime soon, in order to provide more funding for the most cost-effective renewable resources. Thus, the alternative budget may enable the acquisition of a larger amount of renewable resources for PacifiCorp ratepayers, while still maintaining a strategy to acquire diverse resources.

The Oregon Solar Energy Industries Association believes that cost should not be an overriding factor for evaluating renewable resource programs at the Energy Trust, and

that such a position would be short-sighted. Instead, it recommends that a strategic energy portfolio take into account base-load vs. peak load resources, reliability, transmission and distribution system benefits, long-term availability and cost stability of the energy source, energy supplies, predictability of energy production, reduction in cost over the long term, and market infrastructure to support the strategy.

Staff does not disagree that the Energy Trust should consider such factors in developing its action plan and budget. However, we do not believe that our general recommendations to consider cost – and therefore how much renewable energy will be acquired on behalf of ratepayers – prohibit consideration of these factors.

Comparing the alternative budget with Energy Trust staff's proposed budget for 2006-07:

- Only \$190,000 would be cut from the Solar Electric Program over the two-year period. Staff notes that the proposed program budget is higher in 2006 than in 2005 because of a larger than normal carryover of committed funds, the result of customers delaying projects until federal incentives become available next year.
- The proposed budget for the new biopower program would be unaffected.
- Funding would continue to be available for the Sherman County community wind project. On-site assessments and feasibility studies to leverage federal funds for community wind projects also would be maintained.
- Commitments already made to projects under the Open Solicitation Program would be honored, but no new projects would be accepted in 2006-07. Among the downsides are that small-scale hydroelectric projects in PacifiCorp's territory would have no avenue for Energy Trust funding. Also, solar projects that are large or that use innovative approaches or new technologies – those which do not fit into the Solar Electric Program – may not be funded.
- An additional \$920,000 would be available for utility-scale projects for PacifiCorp ratepayers, compared to the budget Energy Trust staff recommends.

#### **PROPOSED COMMISSION MOTION:**

The Commission approve staff's comments on the 2006-07 Draft Action Plan and 2006 Proposed Budget of the Energy Trust of Oregon.