

The 2008-2009 Action Plan has been amended primarily to reflect the addition of supplemental electric energy efficiency funding authorized by the Renewable Energy Act (SB 838).

I. INTRODUCTION

Palpable shifts are evident in the environment in which Energy Trust operates. The first is broader acceptance that climate change is real and that, as a result, carbon regulation is expected. Time previously spent debating scientific evidence about climate change is now shifting to how to reduce carbon emissions 80% between now and 2050. A second change is the exponential growth in capital investment aimed at clean technology development. Related venture capital investments have increased 800% in four years time, with solar being a top priority category. Third, renewable energy equipment production is dramatically expanding. Demand for wind turbines is outstripping supply, and costs have increased 30% - 50%. The top five world wind manufacturers, representing 65% of the market, all are working to increase their output by 2010. Global supply of solar photovoltaic (PV) panels is expected to increase four-fold by 2010.

We appear to have reached the proverbial tipping point at which energy efficiency and renewable energy emerge as positive, viable, centerpiece solutions in a world where carbon reduction is a driver. Energy efficiency is seen as the first resource choice—the most available, affordable and carbon-neutral option. Like Oregon, other states with system benefit charges are pursuing more aggressive ways to acquire *all* the cost effective energy efficiency available as soon as possible. In 2007, Oregon became the 24th state with a renewable portfolio standard, and utilities are acquiring more renewable energy projects for their portfolios at a faster rate than ever before. The work Energy Trust does buys critical time, building a bridge to a bright and innovative energy future that is greener, cleaner and more sustainable.

2007 Energy Trust accomplishments move us further in this direction. Electric savings of 35.2 aMW significantly exceeded the best case goal of 32.8 aMW. Electric efficiency spending came within 83% of the total available budget, with the result that more savings were acquired at lower cost. Natural gas savings of 2.25 million annual therms exceeded the conservative 1.8 million annual therm goal while falling short of the best case goal of 2.4 million annual. Year-end renewable energy generation totaled 46.9 aMW, short of results forecasted in the adopted budget but nevertheless a dramatic increase over prior years.

As we look forward, heightened consumer awareness and marketplace interest translates to high growth in volume and demand for Energy Trust programs and services, for both efficiency and renewable energy opportunities.

This revised Action Plan and associated budget assume additional revenues and spending derived from utility supplemental energy efficiency plans. As of this writing, Oregon Public Utility Commission (OPUC) has approved the plan submitted by Pacific Power, with the plan submitted by PGE currently under review. Combined, the two plans are expected to add \$11.5 million more to the Energy Trust electric energy efficiency budget for 2008, and an anticipated total of \$23.1 million in 2009. As a result, the amended 2008-2009 action plan and 2008 budget

anticipate a new savings range of 24.9-33.2 aMW (previously 21.7-28.9 aMW) in electric energy savings and between 1.7 and 2.3 million annual therm savings (previously 1.7-2.2), representing the conservative to best case scenarios for both fuels.

OPUC minimum performance measures for 2008 remain under development. The current electric performance measure requiring average program levelized cost to be 2.0 cents/kWh is expected to increase to a higher level, reflecting a desire to acquire more cost effective savings. This amended budget contemplates a range of electric levelized costs from \$.022 - \$.030/kWh levelized. Levelized cost per annual therm, currently at 40 cents, is also expected to increase, adjusting for an increase in the discount rate from 3% to 5.2%. New renewable energy generation commitments in 2008 are expected to range between 9.5 and 17.3 aMW in new generation.

The following sections of the 2008-2009 action plan describe our emphases and strategies (section II), followed by detailed program/department descriptions and corresponding budgets (section III). The draft 2008 budget is consistent with these themes and approaches. Lastly, a summary of 2009 actions is included (section IV).

II. 2008-2009 DRAFT ACTION PLAN HIGHLIGHTS

Growth in demand for Energy Trust services and programs challenge us to acquire more savings and generation and to deliver greater benefits over time. Building upon existing programs, the 2008-2009 action plan is characterized by innovation and diversification. The plan expands into both current and new markets, adds insights through new market research, pursues different technologies, strengthens existing partnerships while seeking collaboration with new partners, and defines different Energy Trust roles. These and other new strategies and approaches are intended to build capacity and ultimately achieve more results.

The following specific themes spotlight what to expect in the coming two years:

- I. *Renewable energy program transition* - When the Oregon Renewable Energy Act took effect in January 2008, Energy Trust transitioned from programs historically emphasizing utility scale development to projects of 20 MW or less. Mature, successful and diverse renewable energy programs form a solid foundation for this transition while challenging the organization to meet growth in volume and demand across all renewable energy programs. 2008-2009 emphases include:
 - Fulfill 2007 project commitments and continue to provide diverse project opportunities across renewable technologies
 - Meet residential and commercial solar electric demand, with a special emphasis on large commercial installation opportunities in PGE service territory
 - Pursue several community scale wind projects
 - Focus on biopower/biogas projects for dairies and municipal sewage/water treatment facilities
 - Expand the open solicitation program to incorporate small-scale hydro and small geothermal projects

In addition, greater emphasis will be placed on non-profit/public sector opportunities using the successful third-party investor financing model. To meet changing customer expectations, Energy Trust will provide more technical assistance, market validation and

neutral reviews of proposed renewable energy projects. Lastly, with an exclusive role to develop smaller projects, Energy Trust anticipates longer lead times and more intensive work with customers to secure projects and bring them on line. Energy Trust will continue to monitor available funds and, should demand exceed resources, staff will work with interested parties on project timing.

2. *Energy efficiency program emphases* - The amended 2008-2009 action plan and budget are designed to capture more savings within existing markets and pursue new initiatives to reach more challenging and historically underserved, niche markets. Consistent with the resource assessment, the commercial sector holds the greatest market potential for accelerating savings and is the first tier for program growth. Overall energy efficiency strategies designed to first invest base (SB 1149) public purpose funding will:

- Concentrate on sub-markets for both existing and new commercial buildings, including food services, lodging, office buildings, healthcare facilities and informational technology (IT) server farms
- Emphasize lost opportunities, including new small to medium commercial construction, focused on the design-build market and integrating renewable energy
- Expanded service to industrial customers, with new staff managing the program in-house, resulting in more direct Energy Trust/Program Delivery Contractor communication and a new focus on small industrial manufacturing customers consuming <1aMW/year
- Go deeper into residential markets, continuing high value heating, ventilating, and air conditioning measures, ENERGY STAR® Home Performance, further integrating solar usage through home energy reviews and assessments, and renewed concentration in the multifamily/rental market

More research is planned to integrate new energy efficient technologies and measures. Investments and field testing will be pursued for high efficiency water heaters, advanced residential construction techniques and potentially also for select light-emitting diode (LED) applications. In addition, joint marketing of both efficiency and renewable energy opportunities is viewed as a key element of the overall strategy to successfully enter new markets.

3. *Utility Collaboration and Other Partnerships* - With the Renewable Energy Act in place, Energy Trust expects to coordinate even more closely with PGE and Pacific Power on their integrated resource plans (IRPs). This will include regularly engaging utility representatives in the design and review of updated Energy Trust resource assessments. New market opportunities and corresponding measures/technologies will also be identified and pursued. Mutual Energy Trust/utility priorities are expected to be reflected in utility IRPs, with Energy Trust acquisition targets and results included for both efficiency savings and renewable energy generation. In addition, the following important areas will be emphasized as Energy Trust further pursues cooperative relationships:

- Interconnection - The smooth and successful integration of smaller renewable energy projects into the electric utility grid is of special importance as Energy Trust continues to acquire smaller-scale, distributed generation
- New financial options - These include further exploration of utility bill and other

- financing options and potential purchase and ownership of efficiency and/or renewable energy products where this is critical to establishing viable markets
- Economic development - As interest in sustainable and green development continues, Energy Trust will strengthen its connections with utilities, state, regional and local economic development organizations, private investors and other organizations committed to sustainability
4. *Apply a customer-driven marketing strategy* - In 2008 Energy Trust is accelerating the evolution of its communications and marketing strategy from a generalized market approach (e.g. existing commercial buildings) to a customer-centric approach that also targets more specific customer groups and vendors (e.g., dry cleaners and nurseries). Beyond the promotion of specific individual programs, this approach will provide broader and more comprehensive ways for business and residential customers to address their energy opportunities. More in-depth market research, targeted outreach, website improvements and trade ally support activities are the keystones to this plan. Specific changes will:
- Add new research focused on market segmentation, an annual attitude and awareness survey and shared market research with utilities and other entities
 - Increase outreach, using more tailored messages for key target groups
 - Promote sector-wide marketing and communications strategies that work across both efficiency and renewable programs
 - Upgrade our website, adding more detailed energy information, interactive features and possibly videos
 - Progressively automate on-line program forms and put an easier application process in place, further simplifying participation
 - Centralize trade ally administration and support, adding capacity for more interaction and feedback, trainings, events and recognition
5. *Community energy* - Energy Trust has selected Corvallis as the community to test whether working with local leaders and organizations in a concentrated manner will result in more participation and greater savings and generation at lower cost. Corvallis presented a best-case opportunity to explore the full gamut of community-based strategies. The amended budget provides additional funding to support activities in Corvallis for a well-rounded campaign that launched March 1, 2008, and will continue through February 2009. The program entails:
- Partnering with the local grassroots Corvallis Sustainability Coalition, comprised of and driven by energetic leaders from 85 community organizations
 - Work closely with NW Natural, Pacific Power, Consumers Power, the mayor, and city council on planning and delivery

In addition to the Corvallis focus, Energy Trust will work to engage large employers to reach out to employees with information about Energy Trust opportunities through:

- Continued work with Nike to communicate Energy Trust Home Energy Savings information on its intranet sustainability site and through employee email "blasts"
- Future participation of larger employers to deliver targeted messages for both efficiency and renewables

6. *Continue process improvements* - In 2008, Energy Trust will act upon findings and recommendations from the IT Enterprise Architecture Study. Such actions will lead to a new IT strategic plan with elements that:
- Put a new IT staffing plan in place
 - Re-assess contact management system requirements and software
 - Evaluate current versus alternative accounting and finance packages
 - Develop new system implementation plans

These improvements are intended to further focus IT efforts on those system improvements that most benefit both internal and external customers and users. Additionally these improvements will provide Energy Trust the flexibility to more effectively address the complexities the organization encounters.

7. *Incremental energy efficiency funding* - This revised action plan, revised budget and corresponding updated electric energy savings targets assume incremental funding authorized by the Renewable Energy Act (SB 838) from Pacific Power and PGE. The OPUC has approved Pacific Power's request to acquire more cost-effective savings with funding above the 3% public purpose rate, and these funds began flowing to Energy Trust in February, 2008. PGE has filed for OPUC approval of supplemental funding. For the purposes of this revised budget, Energy Trust assumes PGE supplemental funds will become available starting in August, 2008. Incorporating incremental funds assumes a period of ramp-up and diversification, reaching steady state by 2010. In addition to gleaning more savings from existing programs and approaches, the following investments are planned:

- With the coordinated participation of utility representatives, accelerate efforts to target key sub-sectors of the existing commercial buildings market
- Expand efforts in small to medium new commercial construction
- Explore opportunities for zero net energy residential and commercial building design
- Expand market penetration to serve more customers across all sectors
- Add services for near low-income residential customers (60-80% of federal median income levels), expanding multifamily lighting emphasis and investigating the addition of new high efficiency technologies such as ductless mini-split heat pump units for heating
- Investigate capturing new energy improvement upgrades and financing opportunities at the time when existing residential and commercial buildings are sold or leased
- Expand funding and activity for measures such as lighting, compressed air and motor upgrades in specific small industrial segments, such as metal fabrication, horticulture and nurseries
- Add new pilots in the residential sector including refrigerator recycling and home energy monitors

III. 2008-2009 PROGRAM/DEPARTMENT SUMMARIES AND CORRESPONDING BUDGET DETAIL

The following section includes 1-page, 2-sided descriptions for every program and major department, including 2008 revised budget details. This information provides a short descriptive statement of purpose, a list of top strategies and actions anticipated, the revised 2008 budget, and—where applicable—projected savings/generation.

IV. 2009 PROJECTED HIGHLIGHTS

Energy Efficiency

- Develop new initiatives to fully utilize any additional revenues made available by utilities through the Renewable Energy Act
- Continue concerted natural gas efficiency marketing, investments and savings acquisition
- Promote viable new residential technologies such as non-condensing gas water heaters as equipment becomes available
- Begin promotion of the most advantageous niche applications of LED lighting and next generation compact fluorescent lighting (CFL) technologies, assuming new products are tested and proven reliable
- Continue to develop the capacity of architects, engineers and developers to integrate energy efficient practices into new commercial construction
- In collaboration with the Northwest Energy Efficiency Alliance (NEEA), implement a new ENERGY STAR home specification that will be 15% above the 2008 Oregon residential code
- Explore strategies to achieve low- to zero net energy homes and green communities
- Collaborate with Avista to expand Home Performance with ENERGY STAR in southern Oregon
- Continue to seek opportunities with electric utilities to develop transmission and distribution deferral projects
- By supporting NEEA programs, attract more companies to permanently incorporate energy management practices and actions
- Continue to work with the Consortium for Energy Efficiency and manufacturers to encourage the development of new gas appliances to fill market gaps (e.g., condensing heat for rooftop commercial space conditioning systems)
- Accelerate efforts to identify and quantify when we are transforming markets and how much we are consequently saving

Renewable Energy

- Accelerate pursuit of projects of 20 MW or less
- Monitor utility scale project operation and fulfill ongoing reporting responsibilities
- Expand the opportunities for more community wind developments
- Grow the small-scale on-site wind generation initiative
- Continue to support commercial biomass operations at Warm Springs to come on-line in 2009
- Focus on dairy, wood and innovative waste management biomass projects
- Support wave power projects if research and development efforts prove out
- Support more hydro electric developments and expand to small-scale geothermal
- Examine whether to create a separate hydropower program offering
- Adjust solar incentives and activities to respond to changes in federal tax credits after 12/31/08
- Quantify and demonstrate the value solar energy systems add to Oregon homes

Other

- Continue evolving effective communications and marketing strategies that are customer centric and go beyond promotion of individual programs
- Monitor results of the Corvallis community energy pilot and, if successful, replicate the approach in one or more other Oregon communities¹
- Focus research and planning on market acceleration and more hard-to-reach markets
- Begin implementation of financial and contact management systems changes selected in 2008
- Begin full implementation of the remainder of the IT strategic plan
- Update the five-year strategic plan
- Complete the five-year management audit

¹ The Corvallis pilot will continue into 2009 and final evaluation will not be possible until then.

Appendix I
Energy Trust of Oregon
Mission Statement and Strategic Plan Goals

Mission statement:

To change how Oregonians produce and use energy by investing in efficient technologies and renewable resources that save dollars and protect the environment.

Strategic Plan Goals:

- Goal 1:** By 2012, deliver programs to help consumers save 300 average megawatts (2.6 million annual megawatt hours) of electricity and 21 million annual therms of natural gas from long-lasting energy efficiency measures. Targets are for a weighted average measure life of 14 years for electric savings and 20 years for gas savings.
- Goal 2:** Provide 10% of Oregon's electric energy from renewable resources by 2012, (approximately 450 average megawatts for Pacific Power and PGE if Energy Trust programs are complemented by state, federal and other policies and programs, or 150 average megawatts by Energy Trust effort alone.)²
- Goal 3:** Extend energy efficiency and on-site renewable energy programs and benefits to underserved consumers.
- Goal 4:** Contribute to the creation of a stable environment in which businesses that promote energy efficiency and renewable energy have the opportunity to succeed and thrive.
- Goal 5:** Encourage and support Oregonians to integrate energy efficiency and renewable resources into their daily lives.

² Goal 2 was adopted before passage of the Oregon Renewable Energy Act, which takes effect in January 2008. In the course of updating the strategic plan during this same year, Energy Trust will revise this goal to reflect our new and exclusive focus on renewable energy projects of 20MW or less.

Appendix 2

2008 Anticipated OPUC Energy Trust of Oregon Performance Measures*

<u>Category</u>	<u>Measures</u>	<u>2008 Revised Budget</u>
Energy Efficiency	Obtain at least 20 aMW computed on three year rolling average Levelized cost not to exceed \$0.02/KWh	24.9- 33.2 aMW \$0.022 - \$.030/kwh
Natural Gas	Obtain at least 700,000 annual therms Levelized cost not to exceed \$0.40/therm	1.7-2.3 million annual therms \$0.33 - \$0.44/therm
Renewable Resource Generation	Secure at least 3 aMW computed on a three year rolling average from small scale projects	9.5 – 17.3 aMW
Financial Integrity	Receive an unqualified financial opinion from independent auditor on annual financial statements	Accounting conforms with Generally Accepted Accounting Principles (GAAP)
Administrative and Program Support Costs	Keep below 11% of annual revenue	7.1%
Customer Satisfaction	Achieve reasonable rates	Includes customer satisfaction research
Benefit/Cost Ratios	Report both utility system and societal perspective on an annual basis and report significant changes, if any, on quarterly statements	

*In light of increased Renewable Energy Act (SB 838) electric efficiency revenues, discussions are in progress with OPUC staff regarding increases in electric and gas levelized cost performance measures.