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# GROWING A SUSTAINABLE ENERGY FUTURE

**2008 ANNUAL REPORT** 





### **DEAR OREGONIANS,**

In a year marked by economic recession, Oregonians continued to look to Energy Trust of Oregon to help save energy and money and generate clean, renewable power in their homes, businesses and communities. In 2008, Energy Trust invested \$41 million to offset the costs of 59,000 energy-saving and renewable energy projects to benefit utility ratepayers.

Those investments deliver measurable results throughout the state. In 2008, Energy Trust incentives helped utility customers save nearly \$144 million a year and avoid emitting one million tons of carbon dioxide into our atmosphere. Our incentives, when combined with Oregon and federal tax credits, make energy solutions accessible to Oregon customers.

Equally important are the Oregon jobs created from our work. More than 1,200 contractors and energy service companies—most of them small local businesses—install the energy-saving and renewable power equipment supported by Energy Trust incentives. We thank everyone that contributes to making our efforts so successful—our customers, trade allies, Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas, Oregon Department of Energy and many others.

Oregon planted the seeds of this growth a decade ago. Seeing the wisdom of cleaner energy options, over cheaper alternatives to building new fossil fuel power plants, lawmakers created a public purpose charge on private utility ratepayer bills to provide stable funding for energy efficiency and renewable energy. With oversight from the Oregon Public Utility Commission, Energy Trust invests those funds to build a clean energy future for our state and bring the economic and environmental benefits of energy savings to Oregonians every day.

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Margie Harris, Executive Director



### GROWING IMPACT Energy Trust savings add up

Each year, Oregonians tap Energy Trust incentives and services to save tens of millions of dollars in energy costs. Those one-time investments will pay steady, reliable dividends far into the future. Today, after just seven years, Oregon utility ratepayers are reaping the benefits of \$440 million in savings. These savings will continue to grow, compounding for years to come.



### PLANTING SEEDS OF CHANGE

Since March 2002, Energy Trust has invested public purpose funds to help Oregonians improve energy efficiency, generate renewable energy, save money, protect the environment and strengthen our economy. Those investments have yielded an abundant harvest. At the end of 2008, we had helped Oregonians save and generate enough clean energy to power 221,000 Oregon homes and heat another 18,300 homes with natural gas. Over seven years, our programs have saved participants \$440 million.

### Money saved

Using less energy and generating power from the sun, wind or other renewable sources adds up to lower utility costs each year. In 2008:

- 200,000 households saved \$67.2 million
- 5,900 commercial sites saved \$38.1 million
- 730 industrial sites saved \$38.23 million
- Total savings of nearly \$144 million

#### Lower power prices

Energy Trust helps keep power costs as low as possible for all Oregonians. Saving energy costs ratepayers less than building fossil fuel power plants about 1/5 less for electricity and 1/3 less for natural gas. Utilities rely on these energy savings as a resource to meet future energy needs for their customers.

### Jobs and green economy growth

At a time when many companies are shedding workers, the clean energy industry is growing. Since 2002, Energy Trust investments have created more than 1,800 Oregon jobs, stimulated \$60 million in wages and \$9.1 million in new business income. Our 1,200 trade ally contractors that install energysaving and renewable power equipment play a pivotal role in Oregon's economy.

### **Environmental protection**

Three million tons of carbon dioxide are kept out of our atmosphere because of the energy saved and renewable power generated with Energy Trust programs thus far—the equivalent of removing 525,000 cars from our roads every year.

### **ABOUT ENERGY TRUST**

#### Who we are

Energy Trust of Oregon is an independent nonprofit organization dedicated to helping Oregonians invest in and benefit from energy efficiency and clean, renewable energy.

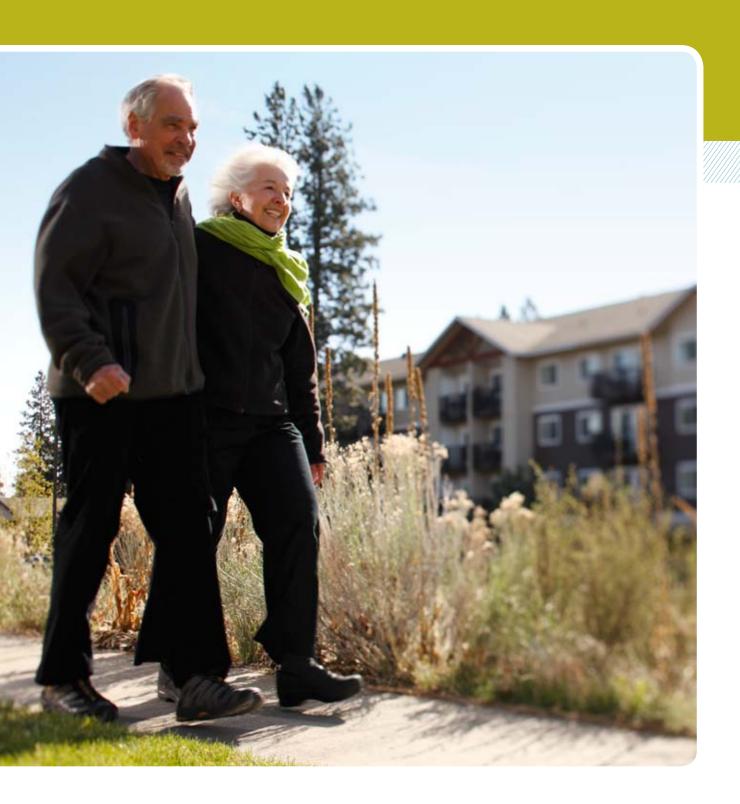
#### What we do

Our services and cash incentives help utility ratepayers make improvements to save energy and manage costs in their homes, businesses and communities

#### Who we serve

We serve 1.5 million Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas. These customers provide funding for our programs through a public purpose charge on their bills.

Learn more at www.energytrust.org/facts.





### MOUNTAIN LAUREL LODGE Bend, Oregon

Central Oregon sunshine helps power Mountain Laurel Lodge in Bend. The 54-unit affordable, independent living retirement community includes an 18.5-kilowatt solar electric system that received Energy Trust incentives and a Blue Sky Grant from Pacific Power. A solar water heating system also received incentives. Both systems serve the facility's common areas, minimizing utility costs to help keep rents affordable.



### REAPING RESULTS

In spite of the economic downturn, Oregonians completed a record number of residential, commercial and industrial energy-saving and renewable energy projects with help from Energy Trust. Total projects grew by 21 percent over 2007, and most Energy Trust programs exceeded annual goals.

### **2008 HIGHLIGHTS**

- Helped Oregonians implement 59,000 energy efficiency and renewable energy projects
- Saved 32 average megawatts (aMW) of electricity and nearly 2.6 million therms of gas; one aMW of electricity is enough to power 775 homes, one million annual therms of natural gas is enough to heat 1,972 homes
- Generated 33 aMW from renewable energy projects
- Maintained low administrative costs
- Supported the growth of 1,200 Oregon businesses that strengthen Oregon's economy as trade ally contractors in local communities
- Generated \$25 million in wages, \$4.1 million in new business income and 596 new jobs
- Offset more than 233,000 tons of carbon dioxide generated by fossil fuels, equal to taking 41,000 cars off the road
- Earned consistently high customer satisfaction rates for all programs

#### **PROGRESS TOWARD 2012 GOALS**

- Saved 207 aMW of electricity 69 percent of 300 aMW goal
- Saved 9.3 million annual therms of natural gas 44 percent of 21 million annual therms goal
- Generated 97 aMW of renewable energy 65 percent of aggressive goal of 150 aMW, 10 percent of Oregon electricity use

We continue to make progress toward our other goals to expand participation, help businesses thrive and encourage Oregonians to integrate energy efficiency and renewable energy in their daily lives.

See the full Energy Trust of Oregon 2008 Annual Report to the Oregon Public Utility Commission at www.energytrust.org/ar08.



### **SEASIDE CIVIC & CONVENTION CENTER** Seaside, Oregon

Energy-efficient lighting is saving the city-owned convention center approximately \$1,600 in annual energy costs. Energy Trust incentives helped make the upgrades affordable and dramatically improved light quality for the 43,000 people who attend trade shows, conventions and other events each year.

# HOME GROWN ENERGY SOLUTIONS



MIKE McOWEN
Dallas, Oregon

Building a custom ENERGY STAR home gave Mike McOwen the chance to incorporate features like high-efficiency windows, appliances and a heat pump. Energy cost savings paid back his upfront investment in just over a year. He plans to save even more with a solar electric system.

Oregonians are planting seeds of change right in their own yards. With help from Energy Trust, they're making changes as simple as switching to compact fluorescent light bulbs and ENERGY STAR® clothes washers, and as comprehensive as adding rooftop solar electric systems and undertaking whole-house energy makeovers.

Since 2002, we've helped nearly 200,000 Oregon households make energy-saving improvements and tap the power of solar energy. In 2008, utility ratepayers saved a total of \$67.2 million as a result of these energy solutions. Our services include online and on-site assessments, referrals to trade ally contractors and cash incentives for a variety of home improvements and energy-saving products. We also support construction and marketing of energy-efficient new homes and promote energy-efficient manufactured homes. This reduces utility costs for Oregon families, returning dollars for other necessities. Homeowners see that their energy-saving improvements pay for themselves through lower utility costs year after year.



### **2008 RESIDENTIAL HIGHLIGHTS**

- 6,346 Home Energy Reviews were completed, a 12 percent increase over 2007
- 31,600 households analyzed their energy use with the online Home Energy Analyzer
- 10,906 single-family households and 1,123 manufactured homes installed energy efficiency improvements
- 10,310 multifamily units were improved with energy efficiency upgrades, a 70 percent increase over 2007
- 1,177 ENERGY STAR new homes were built, a 15 percent increase over 2007
- 1,112 ENERGY STAR new homes and 212 new multifamily units benefited from high-efficiency upgrades
- 152 solar electric and 212 solar water heating systems were installed
- 57,580 tons of carbon dioxide emissions were offset by energy savings
- 21,101 ENERGY STAR clothes washers and 2,410 ENERGY STAR refrigerators were purchased and 2,109 inefficient, old refrigerators were recycled

### SARAH BEAUBIEN & KELLY RICHARDSON Portland, Oregon

Making their home more efficient is part of this Southwest Portland couple's plan to reduce their impact on the planet. Sarah and Kelly started with a Home Performance with ENERGY STAR assessment. Then Energy Trust incentives helped them install a high-efficiency gas furnace, windows and insulation, plus seal air leaks and ducts for annual energy cost savings of \$330.

# POWER TO THE BOTTOM LINE



### ROUGH & READY LUMBER CO. Cave Junction, Oregon

A high-efficiency boiler and generator produce steam and renewable power from this Oregon company's wood waste. The system, which generates enough electricity to power about 900 homes, helps Rough & Ready operate more efficiently and boosts the bottom line. An Energy Trust incentive helped make it possible.

A tile retailer in Astoria, a potato farmer in Klamath Falls and a city facility in Pendleton are among the businesses and organizations supported by Energy Trust's commercial and industrial energy solutions in 2008. Improvements such as a high-efficiency air compressor that reduces manufacturing costs, and a solar electric system that frees up tax dollars for vital city services, are examples of Oregon businesses and communities operating more sustainably.

Since 2002, we've helped Oregon businesses, organizations and municipalities make their buildings and operations more efficient and generate clean, renewable power at more than 6,600 sites. In 2008, annual energy savings resulting from these solutions totaled \$76.3 million. We provide technical assistance and cash incentives for improvements in existing buildings, new construction projects and manufacturing, industrial, agricultural and wastewater operations. Investments in renewable power, including solar, small wind, biopower, small hydropower and geothermal projects are also supported. By reducing the impact of energy costs, Energy Trust solutions help Oregon businesses compete and thrive.



### 2008 COMMERCIAL AND INDUSTRIAL HIGHLIGHTS

- 272 highly efficient new commercial buildings were completed, a 36 percent increase over 2007
- 382 production efficiency projects were completed at manufacturing, industrial, agricultural and water and wastewater treatment sites; this 70 percent increase over 2007 was driven by new services for smaller industrial operations and increased training and resources for lighting trade allies
- 1,378 commercial buildings installed high-efficiency improvements
- 51 solar electric systems were installed on commercial buildings, more than twice the number installed in 2007
- 18 commercial solar water heating systems were installed
- 64,354 tons of carbon dioxide emissions were offset by commercial and industrial energy savings
- One 3.2 megawatt hydropower project was completed
- Two biopower projects came online

### **LES SCHWAB TIRES** Bend, Oregon

At its new headquarters in Bend, Les Schwab Tires is generating electricity to power half of one wing and using 25 percent less energy than a standard new building. Energy Trust incentives helped the company invest in a 36-kilowatt solar electric system and high-efficiency lighting and equipment. Annual savings from the energy saved and generated is approximately \$34,972.





### **CORVALLIS FIRE DEPARTMENT** Corvallis, Oregon

Solar water heating systems at two fire stations are helping the City of Corvallis reduce energy costs. The systems, installed in 2008, qualified for \$1,338 in Energy Trust incentives and save the city approximately \$280 each year. High-efficiency lighting and other energy-saving improvements have also been installed. The city is continuing its commitment to efficiency by adding solar water heating to its three other fire stations.

### ROOTS IN OREGON COMMUNITIES

Energy Trust delivers energy solutions across Oregon with a dedicated staff, professional program service providers and a network of 1,200 trade ally contractors. To maximize the benefits of our services, we work closely with participating utilities, the Northwest Energy Efficiency Alliance, Oregon Department of Energy and other organizations around the state.

### **Contractor support**

Energy Trust works with trade ally contractors who install energy-saving improvements and renewable power systems throughout Oregon. As our ambassadors to homeowners and businesses, trade allies make it easy for customers to access Energy Trust incentives and tax credits.

We refer customers to our trade ally contractors via our Web site and our call center. Energy Trust investments created new jobs, wages and business income for trade ally contractors—pivotal players who are helping build Oregon's emerging green economy.

### **Community involvement**

In 2008, we launched a project to test the effectiveness of a collaborative, community-based energy efficiency and renewable energy campaign. In March 2008, the City of Corvallis formed a local group to spearhead a campaign with Energy Trust, and became the first community to participate.

By the end of 2008, 800 Corvallis homeowners and 50 local businesses had participated in the challenge. An analysis of energy saved and renewable power generated in the first phase of the project will be completed in 2009.

### **Northwest Energy Efficiency Alliance**

Energy Trust supports the work of NEEA through funding and collaboration. NEEA works throughout the region to support development of energyefficient technologies and encourage the availability of energy-efficient products and practices for consumers.



### **BERNARDS FARM** McMinnville, Oregon

Rising from a field outside McMinnville, a 10-kilowatt wind turbine now generates more than 10 percent of the electricity used by Bernards Farm. Energy Trust incentives helped make it happen, with help from turbine manufacturer Abundant Renewable Energy.

## SAVINGS, **GENERATION & PERFORMANCE**

### **2008 ELECTRICITY SAVINGS & COSTS**

Sector	Savings /aMW	Levelized Cost/kWh*	Levelized Cost Avoided**
Commercial	7.79	2.6 cents	8.3 cents
Industrial	9.40	2.0 cents	9.1 cents
Residential	14.93	1.8 cents	8.8 cents
Total	32.12	2.1 cents	8.8 cents

2008 savings are 90% of the 2008 best case projection.

### **2008 NATURAL GAS SAVINGS & COSTS**

Sector	Savings /Therm		Levelized Cost Avoided**
Commercial	1,207,316	33 cents	76 cents
Industrial	12,600	53 cents	69 cents
Residential	1,353,214	54 cents	74 cents
Total	2,573,130	45 cents	72 cents

2008 savings exceeded the best case projection of 2.3 million annual therms.

### **2008 RENEWABLE ENERGY GENERATION & COSTS**

Program	aMW Generated	Levelized Cost/kWh
Biopower	2.69	0.50 cents
Open Solicitation	0.10	19.70 cents
Solar Electric	0.41	13.00 cents
Utility Scale	30.10	0.00 cents
Wind	0.004	142.60 cents
Total	33.30	0.30 cents

2008 generation was more than double the 2008 best case goal.

### **2008 RESULTS BY UTILITY**

Utility	Savings	Generation
Portland General Electric	18.58 aMW	1.83 aMW
Pacific Power	13.54 aMW	31.47 aMW
NW Natural	2,429,534 therms	NA
Cascade Natural Gas	133,803 therms	NA
Avista	9,793 therms	NA

For additional information, see the full Energy Trust of Oregon 2008 Annual Report to the Oregon Public Utility Commission at www.energytrust.org/ar08.

<sup>\*</sup> Energy Trust's costs for each unit of energy saved, adjusted for when savings and costs occurred.

<sup>\*\*</sup> What it would cost the utility to provide and deliver each additional unit of energy in the absence of Energy Trust programs.



### **2008 PERFORMANCE MEASURES ESTABLISHED BY THE OREGON PUBLIC UTILITY COMMISSION**

Energy Trust Performance Results	OPUC Performance Measure	
Electric Efficiency		
31 aMW electricity saved ('06-'08 avg.)	At least 31 aMW electricity saved (3-year avg.)	
2.1¢/kWh average levelized life-cycle cost ('08)	Average levelized life-cycle cost not exceeding 3.5¢/kWh	
Natural Gas Efficiency		
2.4 million annual therms saved ('06-'08 avg.)	At least 1.8 million annual therms saved (3-year avg.)	
45¢/therm average levelized life-cycle cost ('08)	Average levelized life-cycle cost not exceeding 60¢/therm	
Renewable Resource Development		
25.6 aMW from utility-scale projects ('06-'08 avg.)	9 aMW new utility scale projects (3-year avg.)	
1.8 aMW from new small scale projects ('06-'08 avg.)*	3 aMW new small scale projects (3-year avg.)	
Financial Integrity		
Unqualified financial audit opinion	Unqualified financial audit opinion	
Program Delivery Efficiency		
Administrative and program support costs were 5.3% of annual public purpose revenues	Administrative and program support costs below 11% of annual revenues	
Customer Satisfaction		
Documented high levels of customer satisfaction	Reasonable customer satisfaction rates	
Benefit/Cost Ratios		
Value of energy saved exceeded cost	Value of energy saved must exceed cost	

<sup>\*</sup>Committed funds for renewable energy projects under construction or in development are projected to generate approximately 10 aMW/year.

## **FINANCIAL** HIGHLIGHTS 2008

### **BALANCE SHEET**

**December 31, 2008** 

Assets \$74,463,272 Liabilities 10,725,687

**Net Assets** \$63,737,585

### **NET ASSETS**

Board Designated \$11,178,066

Unrestricted \$52,559,519

### **EXPENSES BY UTILITY SERVICE TERRITORY**

Portland General Electric Pacific Power	\$37,641,205 22,703,312
NW Natural	14,272,452
Cascade Natural Gas	783,747
Avista	110,746
Total	\$75,511,462

### **EXPENSES BY TYPE**

Total	\$75,511,462
Renewable Energy	10,547,242
Energy Efficiency	\$64,964,220

### **PUBLIC PURPOSE REVENUE** BY UTILITY SERVICE TERRITORY

Total	\$77,570,232
Avista*	0
Cascade Natural Gas	967,082
NW Natural	9,282,857
Pacific Power	27,335,184
Portland General Electric	\$39,985,109

 $<sup>^{*}\</sup>mbox{In}$  2008, Energy Trust and Avista agreed to end services to Avista customers.

### **ACCOUNTABLE** TO OREGONIANS

Energy Trust is delivering on the Oregon Legislature's original intent to help utilities meet the energy needs of Oregonians with lower cost efficiency and clean, renewable energy. A volunteer citizen board of directors and two advisory councils guide Energy Trust's work, with oversight from the Oregon Public Utility Commission. Energy Trust provides the OPUC with quarterly reports, audited financial statements and annual reports showing actual performance measured against target metrics set by the OPUC. Independent reports on Energy Trust and all public purpose spending are completed by a third party and submitted biennially by the OPUC to the Oregon Legislature.

### 2008 Board of Directors\*

President: John Reynolds, FAIA, University of Oregon

Vice President: Rick Applegate,

City of Portland Bureau of Environmental Services Secretary: Debbie Kitchin, InterWorks, L.L.C.

Treasurer: John Klosterman

Jason Eisdorfer, Bonneville Power Administration

Dan Enloe, Intel

Tom Foley, Tom Foley Consultants (Retired from board in 2008)

Roger Hamilton, University of Oregon

Julie Hammond, Beecher Carlson

Al Jubitz, Jubitz Family Foundation

Vickie Liskey, Liskey Farms

(Retired from board in 2008)

Caddy McKeown, Oregon Student Assistance

Commission

Betty Merrill, Oregon Department of Energy

(Special advisor)

Alan Meyer, Weyerhaeuser Company

Preston Michie, Bonneville Power

Administration consultant

William Nesmith, Oregon Department of Energy

(Special advisor; Retired from board in 2008)

John Savage, Oregon Public Utility Commission (Ex-officio)

### **Conservation Advisory Council**

Steve Bicker/Holly Meyer, NW Natural; Jeff Bissonnette, Fair and Clean Energy Coalition; Gary Curtis, D&R International; Suzanne Dillard, Oregon Department of Energy; Bruce Dobbs, BOMA; Michael Early, Industrial Customers of Northwest Utilities; Joe Esmonde, International Brotherhood of Electrical Workers; Lisa Espinosa/Alison Spector, Cascade Natural Gas; Charlie Grist, NW Power Planning Council; Andria Jacob, City of Portland Bureau of Planning and Sustainability; Don Jones, PacifiCorp; Lori Koho, Oregon Public Utility Commission; Karen Meadows, Bonneville Power Administration; Mat Northway/Bill Welch, Eugene Water & Electric Board; Paul Olson/Paul Kase, Oregon Remodelers Association; Stan Price, Northwest Energy Efficiency Council; Lauren Shapton, Portland General Electric; Steve Weiss, Northwest Energy Coalition

### Renewable Energy Advisory Council

Doug Boleyn, Cascade Solar Consulting; Kyle Davis, Pacific Power; Carel DeWinkel, Oregon Department of Energy; Angus Duncan, Bonneville Environmental Foundation; Troy Gagliano, EnXco; Robert Grott, Northwest Environmental Business Council; Thor Hinckley, Portland General Electric; Jeff King, Northwest Power & Conservation Council; Lori Koho, Oregon Public Utility Commission; Suzanne Leta Liou, Renewable Northwest Project; Debra Malin, Bonneville Power Administration; Alan Meyer, Weyerhaeuser Company; John Reynolds, FAIA, University of Oregon; Sandra Walden, Oregon Solar Energy Industries Association; Frank Vignola, Solar Monitoring, University of Oregon

\* The OPUC appoints an ex-officio member to the board and Oregon Department of Energy appoints a special advisor. Other board positions are filled according to board development guidelines established by the OPUC.





### GILLESPIE GRAZING Pendleton, Oregon

In wheat fields outside Pendleton, Oregon, Gillespie Grazing's sheep feed on spring grasses. Cameron Gillespie works the family farm, which uses energy and water wisely with help from a new well pump with a high-efficiency variable frequency drive. An Energy Trust incentive helped offset the cost of the investment, allowing the company to trim annual electricity costs by approximately \$1,581.