Energy Trust of Oregon, Inc.
2004 Annual Report
April 15, 2005

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1 Message from the Executive Director

Energy Trust investments in energy efficiency and renewable energy help fuel our state's economy, strengthen businesses and keep Oregonians employed. Since opening our doors in March 2002, Energy Trust has helped 86,000 households and 3,200 businesses in over 200 Oregon communities manage their utility bills, increase the comfort of their homes, enhance business productivity, and enjoy a hedge against future rate increases. The energy saved and produced from Energy Trust programs is enough to power nearly 50,000 homes each year.

We treat energy conservation and efficiency as a resource to be acquired at about half the cost of generating energy in a fossil-fuel power plant. A typical home or business can recapture 20% or more of the energy used simply by installing more efficient equipment and energy saving measures.

Energy Trust programs and incentives are making it more affordable for utilities, individual businesses and residents to use renewable energy. While renewable energy requires added investment on the front end, power from the sun, wind and other clean and abundant resources has multiple, long-lived benefits for investors and their communities.

In our quest to bring these opportunities to Oregonians, Energy Trust set aggressive goals. By 2012, Energy Trust programs are geared up to help Oregonians save 300 average megawatts (aMW) of electricity and 19 million annual therms of natural gas and meet 10 percent of Oregon's energy needs through renewable sources. Combined, that's enough power to offset the need for at least one new large fossil-fueled power plant. To reach these goals, a diverse array of programs is gaining momentum and being well received in the marketplace. Participant rates are robust and continuing to rise.

This annual report reviews the progress the Energy Trust made in 2004 – a year in which we built upon our start-up efforts and made strong inroads into the markets we serve. Our accomplishments are noteworthy. Renewable energy results shone bright in 2004, delivering 122 percent of the 2004 annual target. More energy efficiency projects than expected will be carried forward for completion in 2005 rather than 2004, with the result that 76% of the 2004 electric energy efficiency goal was reached. These are larger, more complex projects requiring longer lead times before savings begin accumulating. Similarly, roughly half the anticipated gas savings were actually installed in 2004, with projects rolling over instead to 2005. With committed projects in the pipeline, I see our ability to reach efficiency savings targets as a forecasting challenge, more about when savings will be acquired and less about if we can achieve our goals.

To reach our long-term goals, Energy Trust must continue to be flexible, innovative and efficient in delivering energy savings and renewable power to the Oregonians we serve. In 2005, our program participation rates will continue growing, with the expanded involvement of our trade allies, Portland General Electric, Pacific Power and NW Natural and our colleagues at the Oregon Department of Energy.

My thanks to our dedicated board of directors, advisory councils, contractors and other collaborating organizations for taking us to a new level of service and accomplishment in 2004. Collectively, we are up to the challenge and our eyes are on the prize: an environmentally sound and sustainable energy future for Oregonians.

Sincerely,

Margie Harris
Executive Director

II Background, Mission and Goals

A. Background

The Energy Trust began work in March 2002 as an independent nonprofit organization dedicated to energy efficiency and renewable energy production. We serve and are funded by Oregon customers of Pacific Power, Portland General Electric and NW Natural.

We manage our programs with a small staff, deliver the majority of our programs through contracts with service providers, and provide services through a network of several hundred small business trade allies around the state. Our work is shaped by two advisory councils and overseen by a volunteer citizen board.

B. Mission

The Energy Trust's mission is to change how Oregonians produce and use energy. Through innovative programs, we invest in efficient technologies and renewable resources that:

- Develop new sources of clean energy
- Help Oregonians lower their energy bills
- Stimulate the economy
- Protect the environment

C. Goals

The Energy Trust is working to fulfill the State of Oregon's vision to meet future energy needs through environmentally sound, clean energy sources. We are investing in energy efficiency and renewable energy sources to meet the following goals by 2012:

- Save 300 average megawatts of electricity, enough to power two cities the size of Bend
- Save 19 million annual therms of natural gas – enough to meet the annual needs of 26,000 homes
- Meet 10 percent of Oregon's energy requirements (450 average megawatts)

III 2004 Highlights

A. General

- Helped nearly 29,000 Oregon homes and businesses save energy and money
- Saved and generated enough electricity to power 17,000 homes
- Saved enough natural gas energy to fuel over 1,000 gas-heated homes
- Leveraged resources by collaborating with our utility partners, organizations with similar missions and utility customer advocates
- Powered the growth of nearly 380 Oregon businesses and strengthened the state's economy through our trade ally program
- Generated $7.8 million in wages, $1.3 million in new business income and created 138 new jobs[1]
- Continued progress toward 2012 energy saving and energy generation goals
- Improved air quality by offsetting 11,000 tons of carbon dioxide generated by conventional fuels, the equivalent of 24 million miles not driven

[1] Source: ECONorthwest. March 2005. Economic impact numbers are in addition to what would have occurred without Energy Trust's investment of public purpose funds.

B. Residential efficiency programs

- Conducted 2,761 energy reviews and installed 26,784 compact fluorescent light bulbs in 773 electrically heated homes, 2,088 homes with NW Natural heat and electric power from PGE or Pacific Power, and 73 homes with oil heat and electric power from PGE or Pacific Power.

- Helped fund the purchase of 3,868 energy-efficient clothes washers and 1,153 energy-efficient dishwashers in 2,223 homes with electric hot water and 2,798 homes with gas hot water.

- Helped fund installation of high efficiency measures such as sealed ducts, insulation, high-efficiency space heating equipment and energy-efficient windows in 19,538 single-family, multifamily and manufactured homes. Of these, 11,204 are electrically heated, 7,075 are gas heated and 3 are oil heated.

- Installed solar water heating systems in 23 homes with electric hot water and 8 homes with gas hot water.

C. Commercial efficiency programs

- Helped fund installation of high-efficiency measures such as energy-efficient lights and HVAC equipment in 642 commercial buildings, with an average incentive payment of $5,220. Of these, 633 buildings installed electric efficiency measures and 78 buildings installed gas efficiency measures.

- Certified completion of 12 highly efficient new commercial buildings – 10 installed electric efficiency measures and 2 installed gas efficiency measures.

- Installed solar water heating systems in 3 businesses with electric hot water and 1 business with gas hot water.

D. Industrial efficiency programs

- Completed electric energy-saving projects at 220 manufacturing firms, with an average incentive payment of $28,516.

- Entered into a contract with Blue Heron Paper Company for an incentive payment of $5.4 million in 2005. Improvements will reduce the recycled paper company's energy consumption by 25% and save over 106 million kWh annually.

E. Renewable energy programs

- Helped fund installation of solar electric systems in 106 homes and 13 commercial buildings. These included solar electric demonstration projects at two Portland fire stations and a Bend high school. These projects increased the number of grid-tied solar electric systems in Oregon by more than five-fold since Energy Trust programs began.

- Worked with PGE to secure a 75 MW addition to the Klondike wind project near Wasco, Oregon. The project will come on line in 2005, providing 26.7 aMW of electric power.

- Approved a renewable-based combined heat and power facility at the Douglas County Forest Products stud mill in Winchester, Oregon.

IV. Revenues and Expenditures

- Received $50.6 million during the year.
- Spent $42.9 million.
- Provided $23.4 million in incentives to end users. Remaining funds were used to deliver programs and begin projects that will be completed in 2005 and 2006.

A. Revenues

Revenues received from each utility were very close to those projected for 2004.

Source	Actual revenues received in 2004	Budgeted revenues in 2004
Portland General Electric	$26.8 million	$ 27.2 million
PacifiCorp	17.5 million	17.7 million
NW Natural	6.4 million	6.2 million
Total	**$ 50.6 million**	**$ 51.1 million**

B. Expenditures

Efficiency spending fell short of budget. Larger projects in the industrial, new buildings and new homes sectors took longer to complete than anticipated, and program expenditures are not logged until project completion.

Renewable program expenditures are logged after solar projects are complete and when project agreements are signed for wind, biopower and other non-solar projects.

Type	Actual expenditures 2004	Budgeted expenditures 2004
Energy Efficiency programs	$ 37.6 million	$ 38.8 million
Renewable Resources programs	2.8 million	13.7 million
Administration	2.5 million	2.9 million
Total	**$ 42.9 million**	**$ 55.4 million**

Incentives paid 2004						
	Energy Efficiency			Renewable Energy		Total
	PGE	Pacific Power	NW Natural	PGE	Pacific Power	
Q1	$1,158,917	$ 1,022,493	$ 615,571	$ 72,314	$ 248,303	$ 3,117,598
Q2	1,132,553	1,412,966	409,894	74,369	364,547	3,394,329
Q3	998,548	1,767,608	328,874	33,871	313,963	3,442,864
Q4	3,202,751	9,177,156	530,002	72,773	431,313	13,413,995
Total	**$6,492,769**	**$13,380,223**	**$1,884,341**	**$253,327**	**$1,358,126**	**$23,368,786**

V. Savings and Generation

A. Electric efficiency savings

In 2004, Energy Efficiency programs achieved 23.77 aMW, which is 75.5% of the 2004 projection of 31.5 aMW. Since March 1, 2002, these programs have cumulatively saved 51.9 aMW, or 17.3% of the Energy Trust's 2012 goal. Many projects underway in 2004 will not be completed until 2005 and 2006, at which point the savings are "counted." For example, when a large efficiency project at Blue Heron Paper Co. is completed in 2005, cumulative savings will increase to 64.2 aMW. Energy savings are based on initial

projections of savings from each measure installed, adjusted to reflect performance evaluations, market research and other adjustments ("true-up").[2]

Electric Efficiency Savings 2004	PGE aMW	Pacific Power aMW	Total Savings* aMW	Expenses	mil $/ aMW
Residential	3.95	2.33	6.28	$ 7,203,601	$1.15
Commercial	3.63	2.54	6.17	9,992,255	1.62
Industrial	1.51	9.81	11.32	17,346,431	1.53
Administrative Costs				1,920,163	
Total Energy Efficiency Programs	**9.09**	**14.68**	**23.77**	**$36,462,450**	**$1.53**

* Includes transmission & distribution savings

B. Gas efficiency savings

In 2004, efficiency programs saved 737,730 annual therms of natural gas, representing 51.5% of the 2004 projection of 1.4 million annual therms. Significant increases in gas prices, long lead times for some projects, and adjustments to initial savings assumptions based on post-installation data ("true-up") help explain why savings came in below goal.[3] Since gas programs began in 2003, cumulative savings of 887,622 annual therms have been realized, accounting for 4.7% of the 2012 goal.

Gas Efficiency Savings 2004	NWN Therms	Expenses	$ / Therm
Residential	657,032	$2,608,722	$3.97
Commercial	80,698	486,067	6.02
Industrial	0	0	
Administrative Costs		260,190	
Total Energy Efficiency Programs	**737,730**	**$3,354,979**	**$4.55**

C. Renewable energy generation

In 2004, renewable energy generation projects completed and committed account for 122.4% of the 2004 goal of 22.134 aMW. To date, cumulative generation secured totals 44.0aMW, or 9.0% of the 2012 goal of 450 aMW.

Renewable Energy Generation	PGE aMW	Pacific Power aMW	Actual Plus Committed Generation aMW	2004 Expenses		Mil $/ aMW
				actual	actual plus committed	
Utility Scale	26.700[4]	0.000	26.700	$ 112,903	$ 112,903	$ 0.00
Solar Photovoltaic	0.015	0.059	0.074	1,989,039	1,989,039	27.05
Community Wind	0	0	0	183,719	183,719	0.00
Open Solicitation	0.002	0.317	0.319	385,458	909,882	2.85
Biopower	0	0	0	90,294	90,294	0.00
Geothermal	0	0	0	6,210	6210	0.00
Administrative Costs				282,725	282,725	
Total Renewable Programs	**26.716**	**0.376**	**27.093**	**$3,050,348**	**$3,292,047**	$0.12

[2] Beginning in 2005, Energy Trust annually applies the results of third-party evaluations of its programs, "as installed" engineering estimates and corrected tracking data to adjust measure savings and generation estimates from the previous year. The "trued-up" numbers are reflected in the annual report.

[3] See True-up note above

[4] Reflects Energy Trust work with PGE to secure a 75 MW addition to the Klondike wind project near Wasco, Oregon. The project will come on line in 2005, providing 26.7 aMW of electric power.

VI. 2005 Performance Measures

In September 2004, the Oregon Public Utility Commission established new performance measures for the Energy Trust. Performance measures for energy efficiency programs and renewable resource programs are set at an aggregated level rather than at a sector level. This allows the Energy Trust to pursue programs in different sectors as market forces and technological advances dictate.

The following performance measures apply effective January 1, 2005. While the measures do not apply to 2004 results, performance against the measures in 2004 is noted in italics.

Electric Efficiency Performance Targets

- Electricity efficiency savings of at least 20 aMW, computed on a three-year rolling average (*2004 performance 23.77 aMW).*
- Average levelized life-cycle cost should not exceed two cents per kWh *(2004 performance = 1.7 cents per kWh).*

Natural Gas Efficiency Performance Targets

- Natural gas efficiency savings of at least 700,000 therms, computed on a three-year rolling average *(2004 performance = 737,730 therms.)*
- Average levelized life-cycle cost should not exceed 30 cents per therm *(2004 performance = 25.5 center per therm).*

Renewable Resource Development Targets

- Annual new renewable resource development of 15 aMW, computed on a three-year rolling average, from a variety of renewable resources *(2004 performance = 27.093 aMW).*

Financial Integrity

- Demonstrate financial integrity by obtaining an unqualified financial audit opinion annually *(2004 performance =unqualified financial audit opinion).*

Program Delivery Efficiency

- Keep administrative and program support costs[5] below 11 percent of annual revenues *(2004 performance = 6.8 percent of annual revenues).*

Customer Satisfaction

- Demonstrate reasonable customer satisfaction rates with Energy Trust services. To measure, survey customers as part of program evaluations and allow for open-ended responses. Report salient statistics regarding complaints received directly and from utility customer services. *(2004 performance = NA).*

Benefit/Cost Ratios

- Report the benefit/cost ratio for larger conservation acquisition programs beginning with second quarter 2005. *(2004 performance = NA).*

[5] Program support costs are defined as all program costs except the following accounts: program management, program incentive, program payroll and related expenses, call center and program outsource services.

VII. Projects Completed

Energy Efficiency Installed Projects in 2004	Total	Electric	Gas
Residential			
Single family homes retrofitted	7,825	4,675	5,940
Multifamily units retrofitted	9,814	9,520	538
Home Energy Reviews conducted	3,139	2,951	2,370
Manufactured homes retrofitted	1,899	1,872	48
Efficient Home Products rebates	5,021	4,176	845
Promotional CFL packages sold	24,936	24,936	0
Residential Solar Hot Water installations	27	21	7
Efficient New Homes constructed	26	11	24
Utility transition projects completed	245	245	0
Commercial sites treated			
Commercial sites retrofitted	642	633	78
New commercial sites constructed	12	10	2
LED traffic signals installed	5,018	5,018	0
Utility transition projects completed	54	54	0
Commercial Solar Hot Water installations	4	3	1
Industrial sites treated	228	228	0
TOTAL EFFICIENCY	58,890	54,353	9,853

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.
- Some sites are both gas and electric customers and save gas and electricity.
- A CFL package counts as one project. A customer may purchase more than one CFL package.

Renewable Energy Installed Projects in 2004*	Total	Electric
Solar Electric residential installations	106	106
Solar Electric commercial installations	13	13
Open Solicitation projects installed	2	2
TOTAL RENEWABLES	121	121

* New projects completed and operating in 2004.

VIII. Projects by Region

Following is a breakout of the number of projects completed in 2004 by region, along with incentives paid and thumbnail sketches of projects that illustrate the range of people and businesses Energy Trust serves.[6]

PORTLAND AREA

Type	*Number*	*Incentives*
Residential	11,093	$2,414,859
Commercial	2,202	$2,355,201
Industrial	52	$678,680
TOTAL	13,347	$5,448,740

[6] Data by region does not include utility transition projects and incentives, nor incentives that cannot be tied to a specific region.

Reed/Harris Direct Marketing – Portland
Employees at Reed/Harris Direct Marketing now stay warm in the company's 25,000-square-foot printing and mailing facility, while energy bills stay low. The company installed a combination of high-efficiency, ceiling-mounted gas-fired radiant heating units and R-19 insulation in its 19-foot ceilings.

- Estimated annual energy savings: 22,877 therms, 5,445 kWh hours
- Energy Trust incentive: $12,025

"Installing the heating system was a big investment. But the incentives and tax credits made it possible to invest in high-efficiency equipment and insulation that will give us big savings over time."
- Mike Oberg, Reed/Harris Direct Marketing

Les Sturges Home – Lake Oswego
A Home Energy Review convinced this homeowner that an investment in insulating the floor, attic and ducts, offset by Energy Trust incentives, would make a difference in his home's comfort and his energy bills.

- Estimated annual energy savings 760 kWh, 699 therms
- Energy Trust incentive $638

Rosewood Specialty Care for the Memory Impaired - Hillsboro
Energy-efficient daylighting technology was installed as part of a National Institutes of Health study to determine if high light levels can reduce symptoms of Alzheimer's Disease. Four large skylights bring in natural light, which is supplemented as needed by high-intensity fluorescent fixtures controlled by photocells and dimmers.

- Estimated annual energy savings: 128,146 kWh
- Energy Trust incentive: $106,495

"The incentives from the Energy Trust allow us to create the best possible test for the effect of high light on Alzheimer's Disease residents, with the lowest energy cost."
- Eunice Noell-Waggoner, Center of Design for an Aging Society

WILLAMETTE VALLEY

Type	*Number*	*Incentives*
Residential	4,160	$1,004,358
Commercial	1,519	$542,038
Industrial	38	$522,921
TOTAL	5,717	$2,069,317

Phoenix Grand Hotel – Salem
More than 1,2000 light fixtures were changed to compact fluorescent technology in the stylish new headquarters hotel for the Salem Conference Center. The 193-room hotel expects to save as much energy as 75 average single-family homes use in one year.

- Estimated annual energy savings: 900,000 kWh
- Energy Trust incentive: $20,194

"We used the simple prescriptive incentive path from the Energy Trust's New Building Efficiency program and within a week, the project was approved for more than $20,000."
- Frank Cardoza, Phoenix Grand Hotel construction supervisor

Boys and Girls Club of Albany – Albany
Today, the four gymnasiums at the Boys and Girls Club of Albany are well-lit when they need to be, but never lit when empty. High-efficiency tubular fluorescent fixtures, which are turned on and off by occupancy sensors, now help conserve the nonprofit youth center's valuable resources.

- Estimated annual energy savings: 138,651 kWh
- Energy Trust incentive: $14,667

"We couldn't have done any of this without the incentives and tax credits. As a nonprofit, we have to be selective in how we spend our money. Every dollar we save in energy costs can be put right back into our programs."
- Michael Cripe, Boys & Girls Club of Albany

Stewart Aquatic Center – Eugene
The Stewart Aquatic Center is in hot water, thanks to a solar water heating system made possible through Energy Trust incentives and Oregon Business Energy Tax Credits. A 24-kilowatt solar electric array, funded without Energy Trust incentives, also generates electricity at the center.

- Estimated annual energy savings: 5,700 therms (hot water only)
- Energy Trust incentive: $23,108

"The solar systems will work for our facility for over 50 years. The state's energy tax credits and the incentives from Energy Trust allowed us to put renewable energy to work, and realize a good return on our investment."
- Sue Sherman, Stewart Aquatic Center

NORTH COAST & NW OREGON

Type	*Number*	*Incentives*
Residential	340	$76,574
Commercial	9	$97,997
Industrial	3	$49,952
TOTAL	352	$224,523

Boise Paper Solutions – St. Helens
This paper products plant installed variable frequency drives to control combustion air flow and blow heat warm water pumping, resulting in major energy savings.

- Estimated annual energy savings: 3,869,065 kWh
- Energy Trust incentive: $509,616

"This was a very easy process to deal with. Without Energy Trust's incentive, our projects would never have reached the rate of return we needed."
- Dave Albin, project engineer

Solar Beach Home – Cannon Beach
The owners of a new sustainably designed Cannon Beach home will never have to pay an energy bill. Their home is expected to generate more energy than it uses thanks to its energy-efficient design, a solar water heating system and a 5-kilowatt solar electric array. In March 2005 the home was named the National Association of Home Builders' Custom Green Project of the Year.

- Estimated annual energy generated: 3,967 kWh
- Energy Trust incentive: $12,750

"Our goal was to build a home that is healthy to live in using materials and systems with a dramatically reduced impact on the environment."
- Homeowner

Astoria Column – Astoria
Energy-efficient floodlights now illuminate the historic Astoria Column. The project was part of a$1.5 million renovation funded by many organizations, included Energy Trust incentives. Other improvements included new landscaping and a granite plaza.

- Estimated annual energy savings: 8,815 kWh
- Energy Trust incentive: $1,606

"Since 1926, the Astoria Column has been lit by sunlight, moonlight, snowfall and rain. For the first time, it now is lit by spotlights, making it visible at night from almost anywhere in town."
- Jordan Schnitzer, Friends of Astoria Column

SOUTHERN OREGON & SOUTH COAST

Type	*Number*	*Incentives*
Residential	970	$471,653
Commercial	417	$566,689
Industrial	55	$4,361,436
TOTAL	1,442	$5,399,778

Timber Products Company – Medford
Timber Products installed a 100-hp energy-efficient baghouse with high-efficiency motors at its Medford particleboard production facility. The system allows the company to reduce long-term operating costs, reduce particulate emissions and capture 296,800 pounds of dust for recycling back into products each year.

- Estimated annual energy savings: 386,458 kWh
- Energy Trust incentive: $51,950

"The Energy Trust incentives are allowing us to invest in projects that otherwise we would not be able to do. These improvements help us compete in a global market that is increasingly competitive."
- Brad Beavers, Timber Products Company

Pepsi Cola of Klamath Falls – Klamath Falls
With a 172-kilowatt solar electric system installed in three locations, Pepsi Cola of Klamath Falls will generate all the electricity it needs and export 50,000 kWh into the Pacific Power grid each year. The system is the largest solar electric system in the Northwest. A combination of tax credits, financial incentives and attractive loan terms made the project possible for the family-owned business.

- Estimated annual energy generated: 227,000 kWh
- Energy Trust incentive: $210,000

"The tax benefits of installing a solar electric system are substantial and the prospect of making all the electricity we need is appealing."
- John Bocchi, Pepsi Cola of Klamath Falls

Hirsch Multifamily – Medford
Dan Hirsch improved the comfort and affordability of his 11-unit apartment complex, built in 1949, with new windows and back doors, floor insulation and compact fluorescent light bulbs.

- Estimated annual energy savings: 54,000 kWh
- Energy Trust incentive: $6,000

"Some of the tenants have already commented on how much more comfortable their units are. We even noticed how much cooler the units stay in the summer heat."
- Dan Hirsch

CENTRAL OREGON

Type	*Number*	*Incentives*
Residential	516	$399,548
Commercial	342	$1,358,889
Industrial	11	$735,855
TOTAL	869	$2,494,292

Lowe's – Bend
Lowe's Bend home improvement warehouse store opened in September 2004 with high-efficiency fluorescent lighting systems and premium efficiency heating and ventilation units that will dramatically reduce its energy costs. The store is expected to exceed Oregon Energy Code by more than 15 percent.

- Estimated annual energy savings: 250,000 kWh
- Energy Trust incentive: $40,000

"We are very conscientious about building Lowe's stores to be as energy efficient as possible. The Energy Trust incentive dollars allowed Lowe's to install the most energy-efficient equipment available for the Bend store."
- Robin Nickles, Lowe's

Geiger Multifamily – Bend
Roy Geiger made his 13 rental units more comfortable, affordable and attractive for tenants with help from Energy Trust incentives. The Bend property owner installed energy-efficient windows and added ceiling insulation, and Energy Trust provided energy saving compact fluorescent bulbs.

- Estimated annual energy savings: 36,000 kWh
- Energy Trust incentive: $4,902

"I'd been reading articles about saving energy. Learning about the incentives was the carrot that got me motivated to actually make the improvements."
- Roy Geiger

Prineville Wastewater Treatment Facility – Prineville
Prineville's wastewater treatment facility is one of four in Oregon communities that have received Energy Trust incentives for installing BacGen Technologies system controls. In Prineville, the new controls all but eliminated the need for electrically powered aeration in the primary treatment lagoon.

- Estimated annual energy savings: 826,330 kWh
- Energy Trust incentive: $329,203

COLUMBIA GORGE & NE OREGON

Type	*Number*	*Incentives*
Residential	126	$28,756
Commercial	11	$115,411
Industrial	10	$874,337
TOTAL	147	$1,018,504

Apeasay Organic – Hood River
In May 2004, organic apple, pear and peach grower Apeasay Organic powered up a 22-kilowatt wind turbine to run the irrigation pumps for the 70-acre orchard. When the orchard doesn't use all the power produced, the excess flows into the Pacific Power grid and Apeasay receives a credit on its electric bill.

Estimated annual energy generated: 40,000 kilowatt hours
Energy Trust incentive: $23,119

"We use the grid as a virtual battery. When the wind is blowing so hard we can't use all the power, the surplus makes up for the days when there's no wind to power the pumps." - North Cheatham, Apeasay Organic

Mosier Community School – Mosier
A 4.3-kilowatt solar array on the grounds of Mosier Community School now generates about 15% of the school's electricity. The solar demonstration project, which consists of two pole-mounted arrays, contributes to the school's science curriculum and gives students a chance to monitor and measure how the system works.

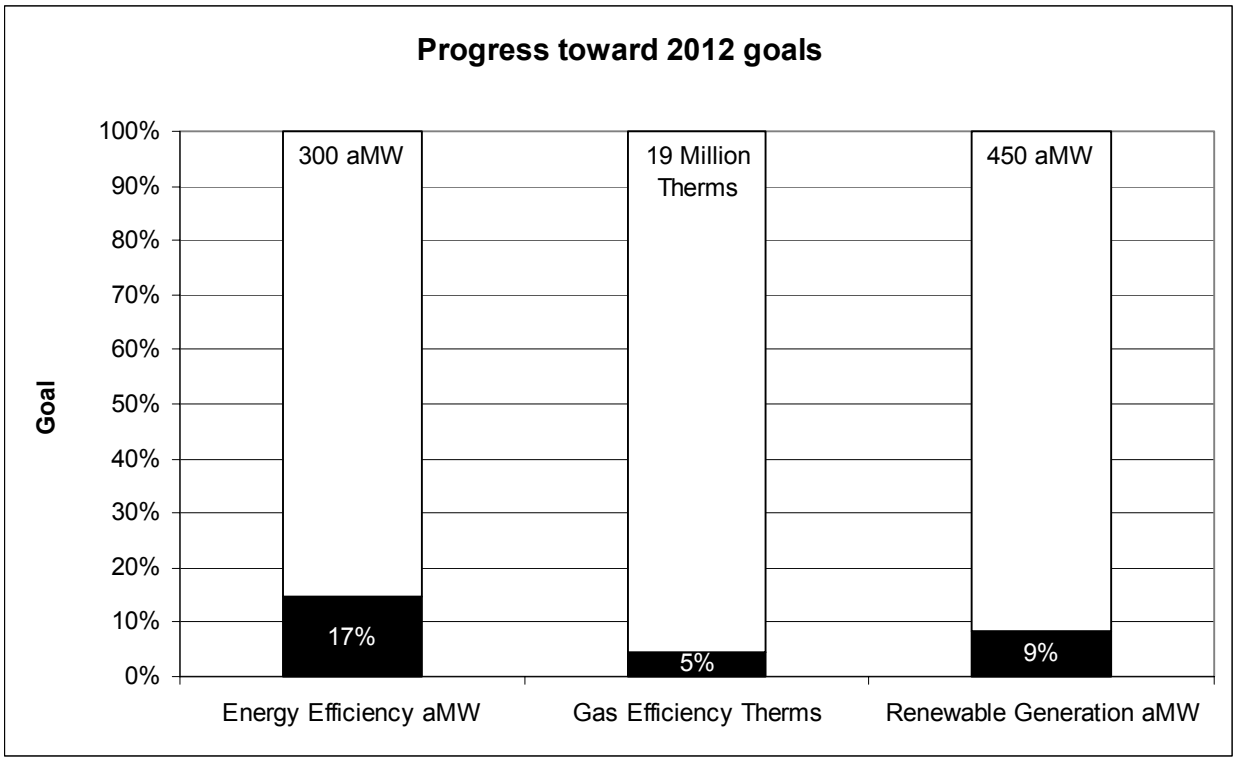
Estimated annual energy generated: 6,000 kWh
Energy Trust funding: $45,000

"This location offers excellent public visibility for the system, with thousands of visitors passing by car and bike each day in the summer."
- Mark Cherniack, Mosier School volunteer energy coordinator

Anheuser- Busch Warehouse – Pendleton
At the new Anheuser Busch Distribution Center, the energy bills will stay as cool as the beer. The 43,000-square-foot building, which includes office, warehouse, refrigeration, and event space, was built with energy-efficient lighting, motors and air conditioning units.

- Estimated annual energy savings: 46,810 kWh
- Energy Trust incentive: $9,502

Appendix


Progress toward 2012 goals
Goal
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
300 aMW
19 Million Therms
450 aMW
17%
5%
9%
Energy Efficiency aMW
Gas Efficiency Therms
Renewable Generation aMW

Energy Efficiency Program Descriptions

Home Energy Savings. Residential utility customers can take advantage of energy-saving recommendations, referrals to qualified contractors and cash incentives for qualified improvements from insulation to duct sealing to energy-efficient electric and gas water heaters. The program started in March 2003 and is managed by Ecos Consulting, Inc.

Efficient Home Products. This program offers cash incentives for purchase of ENERGY STAR® qualified clothes washers, dishwashers and lighting. The program began in January 2004, and is managed by Portland Energy Conservation, Inc.

Efficient New Homes. This program provides incentives and training to encourage builders and developers to build ENERGY STAR qualified new homes. Services include development of the HVAC infrastructure that serves residential new construction, as well as equipment and training incentives. The program began in April 2004, and is managed by Portland Energy Conservation, Inc.

Building Efficiency. This program provides a range of electric and gas energy-saving services and incentives for existing Oregon commercial facilities. Incentives are offered for qualified improvements such as lighting, HVAC, motors, controls and natural gas space and water heaters, restaurant equipment and insulation. Services include energy surveys and technical analysis, contractor referrals, project management and post-installation assistance. The program began in February 2003 and is managed by Aspen Systems, Inc.

New Building Efficiency. Financial incentives for high efficiency equipment, energy modeling, design assistance and building commissioning oversight help customers maximize efficiency of commercial and industrial new construction projects, major renovations and additions to existing buildings. This program was launched in October 2003 and is managed by Science Applications International Corporation.

LED Traffic Signals. This program replaces incandescent traffic signals with LED bulbs. These bulbs use 90 % less electricity and last more than 3 times longer than conventional incandescent green traffic lights.

Production Efficiency. This program provides technical assistance and incentives to improve the electrical process efficiency of manufacturing, water and wastewater treatment and agricultural systems. Measures include energy-efficient pumps, fans, refrigeration, controls and material transport. The program launched in May 2003 and is managed by Aspen Systems, Inc.

Solar Water Heating. This energy efficiency program uses the warmth of the sun to pre-heat water for domestic and commercial uses, offsetting the need for electric or gas power.

Northwest Energy Efficiency Alliance. The Energy Trust supports the market transformation work of the Northwest Energy Efficiency Alliance, and an Energy Trust representative serves on the Alliance board of directors. The Alliance influences energy-efficient design and purchasing practices and is funded by BPA, Energy Trust and regional utilities.

Renewable Energy Program Descriptions

Utility-Scale. The Utility-Scale renewables program facilitates partnerships between utilities and developers of wind and other large-scale projects and provides incentives to cover the above-market costs for generation. Projects are acquired through a competitive solicitation processes in partnership with PacifiCorp and Portland General Electric.

Solar Electric. This program provides cash incentives and referrals to qualified solar contractors to help homeowners and businesses tap into the pollution-free power of the sun.

Open Solicitation. The Open Solicitation program provides incentives for innovative applications of renewable technology. It was designed to support renewable energy projects that are not eligible for incentives through other established incentive programs, and to provide experience in renewable energy sectors that may in the future merit their own programs, such as the Biopower and Wind programs scheduled for launch in 2005.

Anemometer Loan. The wind anemometer loan program helps farmers and other landowners determine whether specific sites have potential for wind generation. It is a first step in identifying and evaluating locations for small-scale wind power installations. The program is managed by Oregon State University's Energy Resource Research Laboratory.

2004 Energy Trust of Oregon Board of Directors

PRESIDENT - Steven Schell is an attorney at Black Helterline who handles environmental, land use, real estate and construction issues. He served on the Land Conservation & Development Commission from 1973-1976 and on the Energy Facility Siting Council from 1990-1998.

VICE-PRESIDENT – Cheryl Perrin is the executive director of Campaign for America, a nonprofit organization focused on campaign finance reform. She served as a senior executive officer with Fred Meyer, Inc., for 22 years, where she was responsible for the company's government and political activities, news media relations, community and civic activities and environmental programs. She was a commissioner and vice-president of the Port of Portland, and serves on the board of STARS, the Willamette River Initiative, the Lewis & Clark 2005 Committee, Portland Public Schools Foundation and the Lewis & Clark College Board of Trustees.

SECRETARY – Rick Applegate is the superfund coordinator at the City of Portland Bureau of Environmental Services. He has worked for more than 18 years on energy and environmental issues as an advocate for salmon and their watersheds. Rick was the fish and wildlife director for the Northwest Power Planning Council from 1987 to 1995. Before that, he was the chair of the US Southern Stakeholders Pacific Salmon Treaty Negotiations, a member of the Pacific Northwest Comprehensive Energy Review, on the executive committee of For the Sake of Salmon, and on the board of directors for the Sustainable Fisheries Foundation. Currently Rick serves on the board of the Pacific Salmon Watershed Fund.

TREASURER - John Klosterman is vice-president of manufacturing at Rejuvenation Inc., and has been with the company for eight years. As part of a state pilot project, he led his company's implementation of an ISO 14001-based energy management system following the sustainability principles of The Natural Step. He serves on the board of Business for Social Responsibility and is responsible for implementing socially responsible policies and programs at Rejuvenation.

Jason Eisdorfer is legal counsel and energy program director for the Citizen's Utility Board. He served as the public interest representative in worksessions of the Oregon Legislature's House Committee on Power Deregulation in 1997, and in 1999 helped author Oregon's electricity industry restructuring legislation, which passed into law in July 1999. He is on the executive boards of the Fair and Clean Energy Coalition, the Northwest Energy Coalition and the Renewable Northwest Project.

Tom Foley has over 26 years of experience in the field of energy analysis and management, including 10 years as manager of conservation and generating resources analyses for the Northwest Power Planning Council and 10 years at Battelle Northwest. He presently runs Tom Foley Consultants, which provides resource planning and consultation with utilities throughout the country.

Julie Hammond is the vice president of operations at Sage Insurance Center in Bend. She has over 15 years experience in the insurance industry. Julie currently serves on the Safeco Advisory Council and Deschutes United Way. She brings a customer service orientation, small business perspective and regional representation to Energy Trust program delivery.

Debbie Kitchin is the co-owner of InterWorks, L.L.C., a construction company specializing in commercial tenant improvement and renovation and residential remodeling. Prior to joining the family business in 1996, Debbie served as Senior Economist for the Northwest Power Planning Council for 15 years and was a Regional Economist for the Bonneville Power Administration for 3 years. Debbie served on the Pacific Northwest Regional Economic Conference board of directors for 8 years. She serves on the board for Commercial Real Estate Women (CREW) and is also on the Executive

Committee of the Portland Metropolitan Small Business Alliance. ***Debbie was appointed to the board in April 2004 to fill the vacancy created by Christine Ervin's resignation***[7]**.**

Rick Kroon is the Oregon site corporate services manager for Intel Corporation. His broad responsibilities include utility management and energy conservation. Prior to moving to Oregon in 1992, Rick worked in California and New Mexico. Rick has an MBA in addition to an engineering degree from the University of Wisconsin. He also represents Intel on the International SEMATECH facilities council, whose members represent global semiconductor manufacturers and scope includes worldwide utility/energy management. ***Rick was re-elected to a new three year term in 2004.***

Vickie Liskey is a native of Klamath Falls and vice-president of Liskey Farms, a 1,500-acre ranch that uses geothermally heated water to heat ranch houses, greenhouses, tropical fish ponds, cattle watering ponds and irrigated pastures. She has 15 years experience managing commercial greenhouses and a degree in horticulture from North Dakota State University. Vicki brings a small business perspective and regional representation to the Energy Trust Board. ***Vickie was appointed to the board in September 2004 to fill a vacant position.***

John Reynolds is professor of architecture emeritus at the University of Oregon and has been involved in energy issues in Oregon since 1972, when he was elected to the Eugene Water and Electric Board. Since then he has served as the president of the Pacific Northwest Solar Energy Association and of the subsequent Solar Energy Association of Oregon. He also serves on the Energy Committee of the Building Codes Structures Board. ***John was re-elected to a new three year term in 2004.***

ex-officio

John Savage represents the Oregon Public Utility Commission. Now one of three OPUC commissioners, he joined the OPUC staff in 2003 as director of its utility program, after having served as director of the Oregon Department of Energy for the previous decade. He was administrator of the ODOE's policy and planning division from 1987-1993. John received a masters degree in natural resource economics from Oregon State University in 1979 and a bachelor of science degree from OSU in 1975.

Oregon Department of Energy Special Board Advisor

William Nesmith is the assistant director for conservation at the Oregon Department of Energy. Bill has a master of science degree and over 20 years experience in the field of energy efficiency. He has worked as a land use planner for local government, been a program manager with state government, and served as a public utilities specialist with the Bonneville Power Administration. In his current position he directs energy efficiency and renewable resource programs for Oregon homeowners, businesses, and public institutions that have a combined budget of over $10 million.

[7] Christine Ervin resigned in February 2004.

Board Development Guidelines

December 31, 2003

This appendix refers to board development guidelines as specified in the Oregon Public Utility Commission grant agreement with the Energy Trust, section 5, guideline 'k', referring to the Energy Trust retaining the skills, broad representation, and diversity necessary to achieve its mission. Background of board development is provided.

The initial board of directors included nine members and one non-voting ex-officio member from the OPUC. The nine diverse members represented a variety of perspectives on energy matters combined with business acumen. Of the nine voting members and one ex-officio member, six provided collective strength, insights and experience relevant to energy policy and planning, program implementation and evaluation, facility siting, consumer advocacy, renewable energy development and sustainable practices. The remaining four members were all business community representatives, reflecting a subset of future commercial and industrial program participants. This latter group provided complementary skills and financial perspectives as marketers, energy consumers and users of anticipated Energy Trust goods and services.

During the first year, the board evolved from a start-up organization to one focused on program delivery. Two of the four initial business representatives resigned for personal reasons. A board subcommittee initiated a broad recruitment effort to attract new members and fulfill board development guidelines. In addition to soliciting input through advisory councils and at public board meetings, over a dozen individuals and partner organizations were specifically asked to identify candidates with the following expertise: business experience and "bottom line" financial orientation, industrial/manufacturing expertise, marketing awareness and skills, familiarity with renewable energy and demographic and geographic representation.

At this same time, the board expanded its size to 11 voting members to allow further diversity and representation. Targeted recruitment efforts resulted in the selection of two new board members to fill vacancies, one of whom is employed by an international high tech manufacturing firm and brings a user/beneficiary industry perspective. The second member adds analytical skills appropriate to energy efficiency and renewable energy as well as relevant energy policy and program implementation experience.

Additional candidates were identified and are being pursued from outlying, smaller communities in eastern, central and southern parts of Energy Trust service territories. In 2003, Julie Hammond was appointed as a board member, bringing a customer service orientation, small business perspective, and regional representation. Additionally, OPUC Commissioner John Savage replaced Lynn Kittilson as the ex-officio board member from the OPUC.

The board created an additional non-voting position for an appointee of the Oregon Department of Energy. Bill Nesmith, ODOE Assistant Director for Conservation Programs, was appointed to fill this "special advisor" position. The board is currently recruiting to fill remaining vacancies. Anticipated membership will provide further geographic and demographic complements to existing members and further expand and reflect the true diversity of customers throughout the service areas.

All new board members and ex-officio members participate in an orientation session and are provided board handbooks containing historical information, policies, plans, budgets and program descriptions. The majority of board members also participate on the advisory councils and board finance and policy committees. All regular board and advisory council meetings are public, with relevant information accessible in advance on the Energy Trust website. Advisory council and board meetings are well attended, with public comment a standard part of all meetings.

In addition, all regular board members complete and sign conflict of interest forms, retained on file and updated annually. Ex officio board members from the Oregon Public Utility Commission and the ODOE do not receive confidential information. Once a year, board and staff members jointly participate in a planning session to review and update the strategic direction of the organization and to compare program accomplishments and goals to results. Board development is a part of this planning session, as needed.

2004 Advisory Council Members and Meetings

Conservation Advisory Council

Susan Anderson, Director Energy Office, City of Portland
Steve Bicker, NW Natural
Jeff Bissonnette, Fair and Clean Energy Coalition
Julie Brandis, Associated Oregon Industries
Carol Brown, Portland General Electric
Gary Curtis, D&R International
Suzanne Dillard, Oregon Department of Energy
Thomas Eckhart, UCONS LLC
Tom Eckman, Northwest Power Planning Council
Terry Egner, Micro Grid
Jason Eisdorfer, Energy Trust Board of Directors
Margie Gardner, Northwest Energy Efficiency Alliance
Don Jones, PacifiCorp
Ken Keating, Bonneville Power Association
Rick Kroon, Energy Trust Board of Directors
Dean Lemman, North Coast Electric Company
Mat Northway, Eugene Water & Electric Board
Paul Olson, Oregon Remodelers Association
Steve Weiss, Northwest Energy Coalition
Stan Price, Northwest Energy Efficiency Council
John Reynolds, Energy Trust Board of Directors

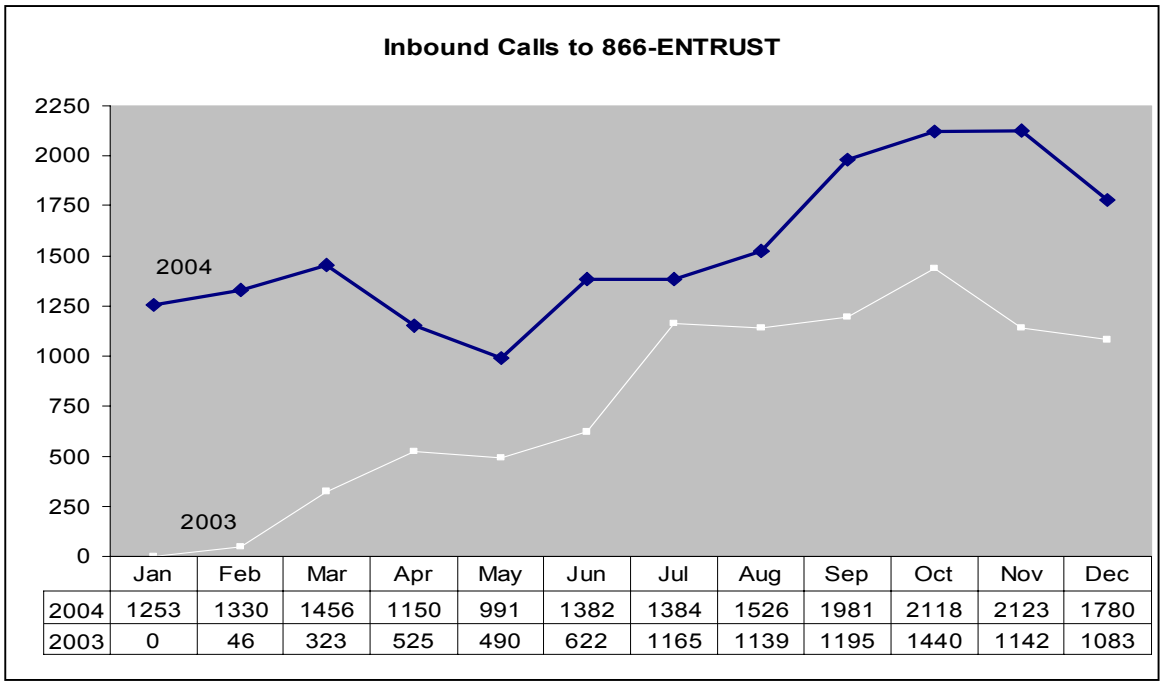
2004 Meeting Dates	CAC Major Discussion Topics
January 14	Program status reports; commercial HVAC initiative; project commitment exceeding program budget
February 11	Year End Savings Summary; equity and industrial program commitment funding increase; project commitment exceeding program budget; cogeneration policy
March 17	Proposed revisions to the New Home Energy Savings program estimate of savings and measure life
April 14	Program status reports; program policies; brand neutrality policy; cost-effectiveness-bundled vs. unbundled measure; refrigerator recycling initiative
May 12	Refrigerator recycling initiative; program evaluations, CAC role discussion
June 16	CAC – Board action update; CFL update; CAC role discussion; Blue Heron Paper industrial project; irrigation measure discussion
July 14	CFL recycling; program delivery contract renew – re-bid update; CHP policy; public schools EE project incentive offering; PE program enhancements; PUC performance benchmarks update
August 11	Program status reports; Board retreat updates; adoption of CAC meeting operating principles; preview of Portland Office of Sustainable Development Green Investment Fund funding proposal
September 15	Production Efficiency program enhancements; Green Investment Fund funding proposal; adoption of CAC meeting operating principles; dishwasher pre-spray measure;
October 13	Board meeting Energy Efficiency actions update; 2005 Action Plan and budget input; dishwasher pre-sprayer measure; industrial transition impact evaluation
November 17	Program status reports; RFQ for quality assurance contractors; Home Energy Savings re-bid RFP; 2005 Action Plan and Budget review
December 15	Two program management rule waiver; HES program re-bid RFP; New Building Efficiency contract extension

Renewable Resources Advisory Council

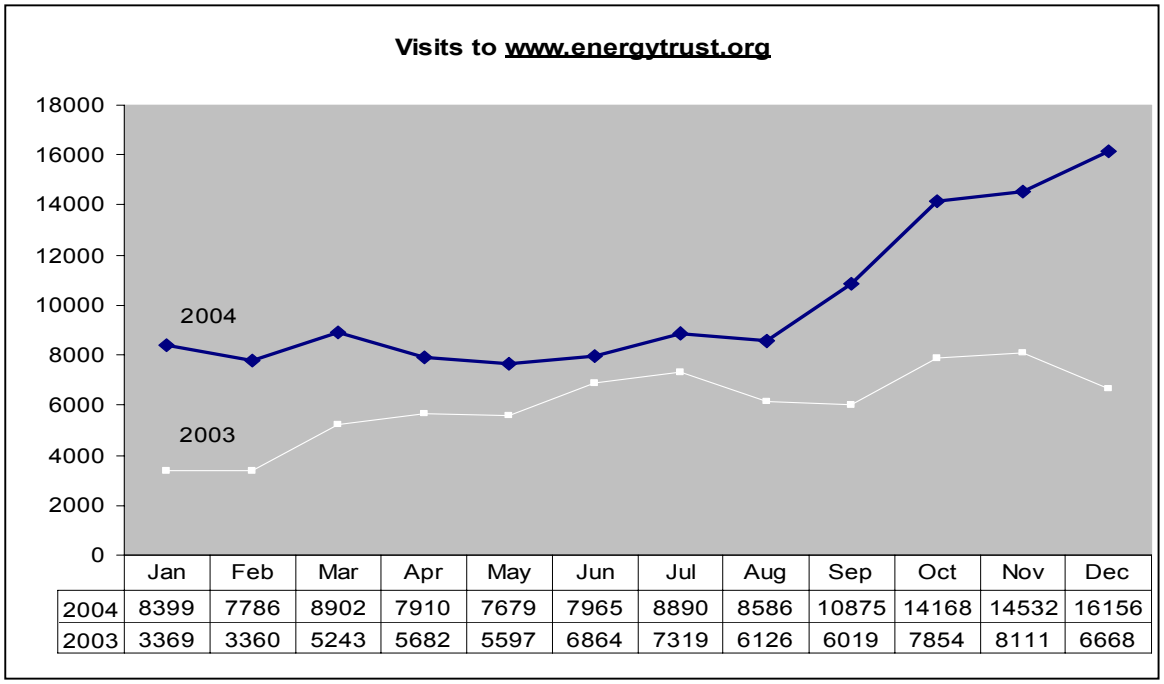
Rick Applegate, Energy Trust Board of Directors
Doug Boleyn, Consultant
Debra Malin, Bonneville Power Association
Angus Duncan, Bonneville Environmental Foundation
Janet Fairchild, Oregon Public Utility Commission
Thor Hinkley, Portland General Electric
Jeff King, Northwest Power Planning Council
Jack Breen, OPUC (temporary fill in until full time hire to replace Janet Fairchild)
Justin Klure, Oregon Department of Energy
Troy Gagliano, Renewable Northwest Project
Jim Maloney, Eugene Water & Electric Board
David McClain, Geothermal Consultant
John Reynolds, Energy Trust Board of Directors
Virinder Singh, Pacific Power
Lisa Schwartz, Oregon Public Utility Commission
Frank Vignola, Solar Monitoring, University of Oregon

2004 Meeting Dates	RAC Major Discussion Topics
February 11	Co-generation Policy, EE Demonstration Policy, PV Program Update, Small(er) Wind Program Design, PV RFP
March 17	PV Program Adjustments, PV Demonstration RFP, Small(er) Wind Program Design
June 16	Solar Thermal Market Assessment, City of Corvallis Biogas Proposal, OPUC Benchmarks, Review of Strategic Issues
August 12	Klamath Falls Solar Proposal, Energy Displacement, Fall Back Strategies, Community Wind Study
October 13	2005 Action Plan & Budget (Open Solicitation Program, Biopower, Solar Electric, Utility Scale, Community Wind, Renewable Energy Budget, Solar Water Heating), Open Solicitation Program Revisions, Solar Green Tag Revisions, Special Incentive for in-state products
November 17	Open Solicitation Projects Review (Hull Wind Turbine, Douglas County Forest Products Proposal) PGE RFP Terms, New RAC Format, Draft Action Plan

2004 Call Volumes and Web Visits



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004	1253	1330	1456	1150	991	1382	1384	1526	1981	2118	2123	1780
2003	0	46	323	525	490	622	1165	1139	1195	1440	1142	1083



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004	8399	7786	8902	7910	7679	7965	8890	8586	10875	14168	14532	16156
2003	3369	3360	5243	5682	5597	6864	7319	6126	6019	7854	8111	6668