2012 Annual Report to the Oregon Public Utility Commission

ENERGY TRUST OF OREGON
APRIL 15, 2013

UPDATED DECEMBER 3, 2013

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Energy Trust of Oregon

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FROM THE EXECUTIVE DIRECTOR: 2012 IN REVIEW

I am pleased to submit this comprehensive report to the Oregon Public Utility Commission detailing Energy Trust of Oregon 2012 annual results. This report highlights the breadth and depth of proven programs combined with innovative market solutions Energy Trust designed and delivered. This summary also contains important information about the costs and benefits of Energy Trust investments on behalf of Oregon utility customers, and highlights full achievement of the minimum OPUC annual performance measures established for us.

To summarize, Energy Trust 2012 results surpassed annual stretch savings goals for electric and natural gas efficiency, and exceeded contract Integrated Resource Plan goals for each utility we serve. While keeping administrative and program support costs at 5.4 percent of the year's revenue, we increased acquisition of the cheapest energy resources available by 12 percent for electric savings and 22 percent for gas savings compared to 2011. We also installed 3.4 times more renewable energy generation than in 2011, further diversifying Oregon's future energy sources through small-scale development of abundant solar, wind, hydropower, biopower and geothermal resources. I'm pleased to report that increased savings and generation came at a lower cost than anticipated in our 2012 budget, reflecting careful attention to cost-management throughout the year. For utility customers, this adds up to more affordable and cleaner energy being secured at a lower cost.

In 2012, Energy Trust further extended our diverse portfolio of program offerings for all types of customers through multiple innovative pilot approaches. We motivated residential customers to change energy consumption behaviors with Personal Energy Reports highlighting home energy use compared to nearby homes of similar size. Commercial and industrial customers were engaged through highly effective, low-cost Strategic Energy Management approaches, realizing savings through improved facility operations and maintenance. Support for on-bill financing and repayment of energy-efficiency upgrades continued through our working relationship with Clean Energy Works Oregon, while we also supported development of MPower Oregon, an on-bill repayment program for multifamily property owners. Working closely with the Oregon Department of Energy, we helped schools identify energy-saving projects and secure funding through Oregon's Cool Schools program.

Investments like these during the last five years have allowed us to increase annual electric savings by 84 percent and grow annual natural gas savings by 125 percent. Since 2009, when our renewable energy role shifted to smaller scale projects, annual generation increased 91 percent. I believe success like this increasingly stems from listening and responding to what customers say they need. Part of our effort in the last year was to make it even simpler for people to make clean energy decisions that unlock dollar and energy savings and renewable energy options for them. The information, technical assistance, financial incentives and opportunities we promote are more refined and targeted, leading to more customers stepping forward to take action than ever before.

These accomplishments create real benefits and lasting changes for our state. Clean and sustainable energy is now woven into the fabric of Oregonians' daily lives and demonstrated in their personal values and decision-making. Energy Trust is proud to participate as a leader in this change, working closely with our collaborating utilities and many others to deliver value to those we serve.

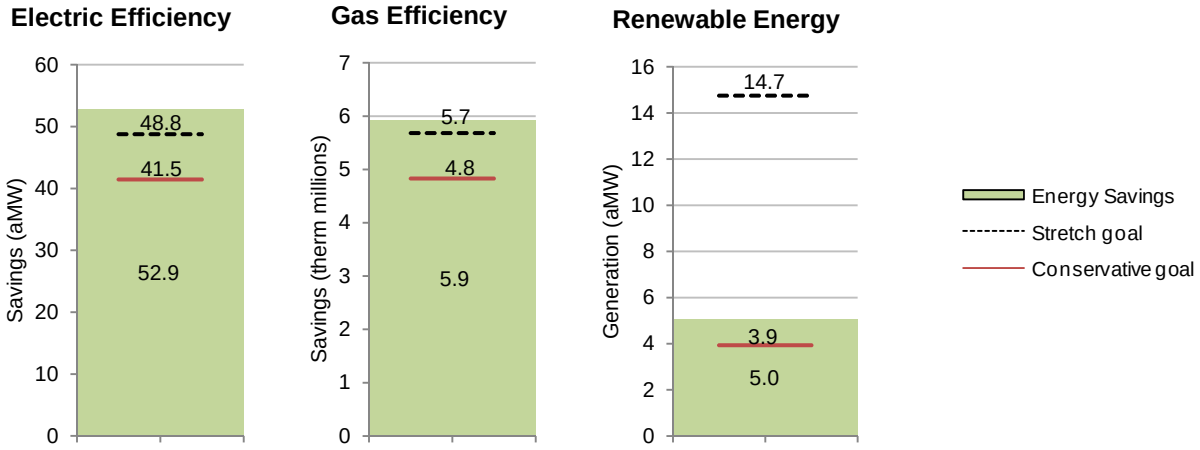
As we move into our second decade, we will continue emphasis on low-cost operations and maintenance improvements, expand financing opportunities to targeted audiences, grow market penetration of highly efficient new home and commercial building construction, achieve greater geographic diversity and participation, support program delivery through our contractors, advance adoption of new technologies and offer greater access to online tools. These and other new approaches are delivered with engagement and leadership from our board of directors, Conservation and Renewable advisory council members, Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas, OPUC, Oregon Department of Energy, Northwest Energy Efficiency Alliance and of course, our staff, our program contractors and our trade and program allies. We thank you all for the many ways you shape and strengthen our performance, making the record-breaking results of this past year possible.

Sincerely,

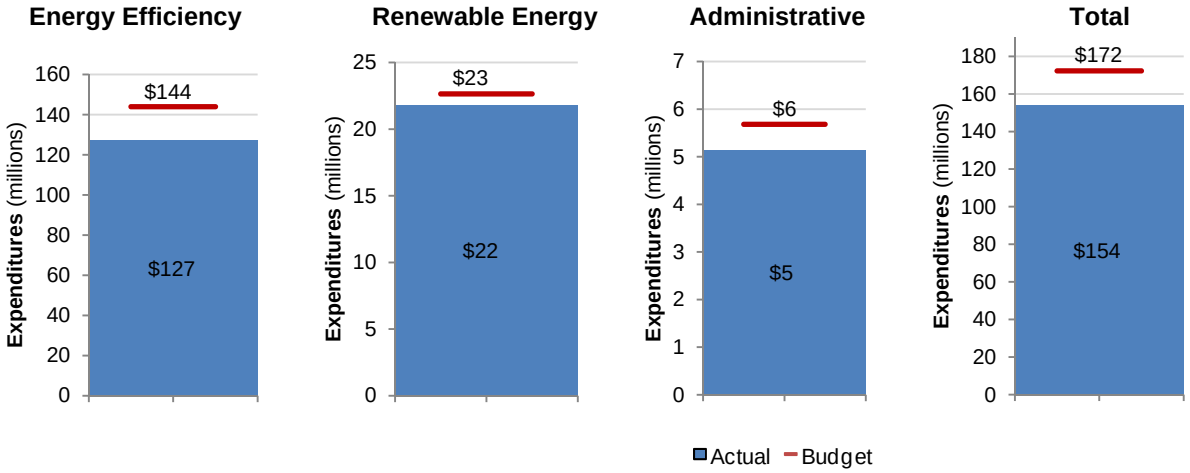
Margie Harris
Executive Director

I 2012 ACTIVITY AT A GLANCE

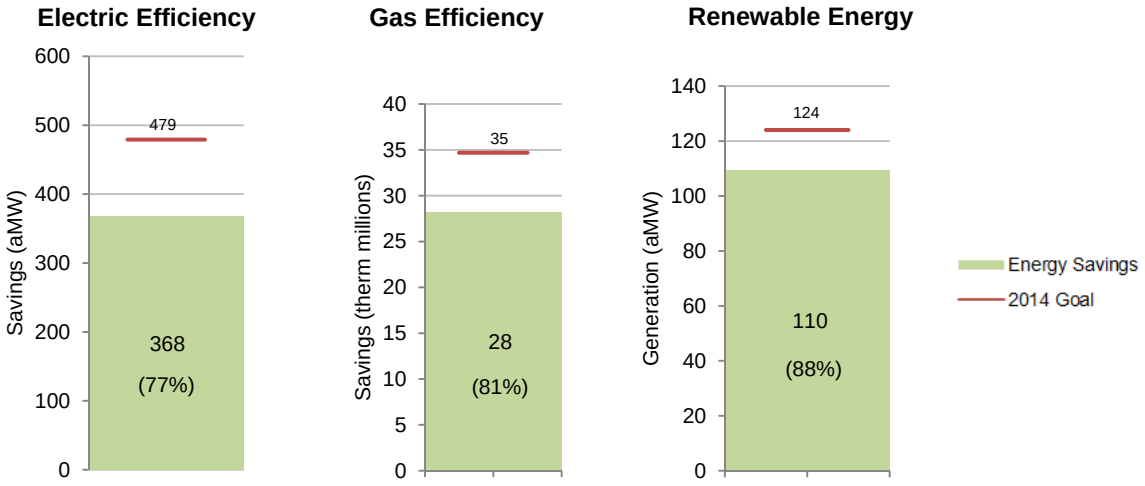
Savings and Generation



Expenditures



2002-2012 Progress toward 2014 goals



Residential activity in 2012

New homes and major remodels	**2,634**
New manufactured homes	99
Weatherization retrofits	**10,841**
Single-family site-built	8,025
Manufactured or mobile	2,816
Solar electric installations	1,112
Home Energy Reviews	**3,515**
Total Sites	**16,990**
Heating systems	**5,186**
Water heaters	**1,284**
Solar	64
High-efficiency products	**32,496**
Washing machines	20,954
Dishwashers	573
Refrigerators and freezers	10,969
High-efficiency lighting*	**825,646**
Refrigerators, freezers recycled	**20,271**
Energy Saver Kits provided	**48,257**
Total Other Activity	**107,494**

* Lighting excluded from totals

Commercial activity in 2012

New Buildings sites served	**317**
New construction	193
Major renovation	76
Tenant improvement	33
Existing Buildings sites served	**3,215**
Operations and maintenance	646
Custom[1]	214
Lighting	1,589
Prescriptive/standard[2]	766
Existing multifamily sites served	**1,080**
Solar water heating sites served	**9**
Sites with technical assistance	**890**

[1]The most common custom improvements are building controls and HVAC.
[2]The most common prescriptive/standard improvements are foodservice and grocery equipment

Industrial/agricultural activity in 2012

Projects with savings	**972**
Custom capital[1]	109
Custom O+M[2]	20
Strategic Energy Management (SEM)[3]	17
Industrial lighting	314
Small industrial[4]	145
Prescriptive[5]	286
Studies	**84**

[1] Top improvements are compressed air system improvements, process upgrades

[2] Equipment modifications to improve efficiency

[3] Savings from no-cost or low-cost operational steps (i.e., turning off equipment when not in use) identified through trainings in SEM approaches/disciplines

[4] Targets users with gas or electric costs under $25,000/year; top improvements are irrigation system improvements, compressed air system improvements, HVAC

[5] Top improvements are sprinklers, replacement gaskets, nozzles

Renewable Energy activity in 2012

Biopower projects	**5**
Solar electric installations	**1,243**
Residential	1,112
Commercial	131
Other renewable projects	**6**
Wind projects	2
Hydropower projects	4
Geothermal projects	--
Total	**1,254**

Other activity in 2012

Calls	**34,752**
Website visits	**574,900**
info@energytrust.org inquiries	**1,704**
Customer complaints	**9**
Trade ally roundtable meetings	**18**
Attendance	850
News stories in print, broadcast	**380**

II BACKGROUND, MISSION AND GOALS

A. Background

Since March 2002, Energy Trust has invested public purpose funds from utility customers so all can benefit from energy-efficiency improvements and renewable energy generation. Our work reduces energy waste, delivers the lowest cost energy resource utilities can buy to meet customer needs, and builds a cleaner, more sustainable energy future that helps our local and state economy. We are funded by and provide services to Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas, along with NW Natural customers in southwest Washington.

An independent 501(c)(3) nonprofit organization, Energy Trust serves the residential, commercial and industrial customers of our affiliated utilities. We offer information, technical assistance and financial incentives, motivating customers to select higher efficiency products and equipment, install and develop renewable energy systems, make building improvements and better manage their energy use. Our customers derive direct benefits from these clean energy investments and activities, often seeing immediate cost savings on their utility bills.

Energy Trust's approach to program management, design and delivery supports innovation while providing value for ratepayers and maintaining low administrative and program support costs. Most of our energy-efficiency programs are competitively bid and managed by contractors. Our Production Efficiency program for industrial and agricultural customers and all renewable energy programs are internally managed by our staff. For most programs, Energy Trust leverages specialized local businesses already serving customers in the marketplace. Energy Trust supports and leverages a network of more than 2,700 trade ally contractors, allied professionals and participating retailers throughout the state who are familiar with Energy Trust incentives and can help customers access them. This approach supports our region's energy services sector and fuels green jobs within the region.

Our work is shaped with advice from two advisory councils comprised of stakeholders and is led by an independent, diverse board of directors whose members volunteer their time and expertise. We comply with legal requirements set forth in our contract with the Oregon Public Utility Commission and consistently achieve the minimum performance measures established to guide our operations and results. Our inclusive and transparent approach includes open meetings and published agendas, minutes, evaluations, budgets and financial statements.

Each year, in developing the next year's budget and action plan, we establish goals for electric and natural gas energy savings and renewable energy generation in consultation with PGE, Pacific Power, NW Natural and Cascade Natural Gas. Our annual goals are linked to the integrated resource plans, or IRPs, established by each of our collaborating utilities and acknowledged by the OPUC.

B. Purpose Statement

Energy Trust provides comprehensive, sustainable energy efficiency, conservation and renewable energy solutions to those we serve.

C. Vision Statement

Energy Trust envisions a high quality of life, a vibrant economy and a healthy environment and climate for generations to come, built with renewable energy, efficient energy use and conservation.

D. 2014 Strategic Plan Goals

1. Save 479 average megawatts of electricity
2. Save 34.7 million annual therms of natural gas
3. Produce 124 average megawatts of electricity from new renewable generation

E. Five-year Activities 2010-2014

1. Accelerate energy-efficiency investments
2. Support a variety of renewable energy technologies
3. Encourage innovative technologies
4. Support industry and business infrastructure to deliver energy efficiency and renewable energy
5. Provide excellent customer service
6. Consider overall balance and equity among programs and initiatives
7. Communicate the value of energy savings and renewable resource generation
8. Maintain an efficient, effective and transparent organization

III HIGHLIGHTS OF 2012 ACTIVITIES

A. General highlights

Annual results[1] [2]

- **2012 annual results exceeded Energy Trust's annual stretch goals** for both electric and gas efficiency savings and exceeded the renewable energy generation conservative goal.
- **Energy Trust met every OPUC performance measure in 2012**. Electric and gas efficiency savings exceeded OPUC performance measures, along with annual levelized life-cycle costs.
- **Savings results exceeded contracted Integrated Resource Plan targets** for all four collaborating utilities and surpassed utility-specific stretch goals for PGE, Pacific Power and NW Natural. Energy Trust achieved 99 percent of its stretch goal for Cascade Natural Gas.
- **Electric efficiency projects completed in 2012** saved 52.9 aMW of electricity at a levelized cost of 2.7 cents per kilowatt hour. This savings is 8 percent above the 2012 stretch goal and 28 percent over the conservative goal. Compared to 2011, 2012 electric savings are greater by 12 percent. At 2.7 cents per kilowatt hour, the 2012 levelized cost of obtaining such high savings was well within the OPUC's performance measure of 4.4 cents per kilowatt hour.
- **Gas efficiency projects completed in 2012** saved more than 5.9 million annual therms of natural gas[3] at a levelized cost of 37 cents per therm. Gas savings exceeded the 2012 stretch goal by 4 percent and the conservative goal by 23 percent. Gas results for 2012 are 22 percent higher than 2011 gas savings. At 37 cents per annual therm, the levelized cost of 2012 gas savings is well within the OPUC measure of 52 cents per therm.
- **Renewable energy projects achieved 5.05 aMW in new generation in 2012.** This volume exceeds the annual conservative goal by 28 percent and is 3.4 times higher than renewable generation installed in 2011. A record 3.3 aMW came from solar electric projects.
- **Energy Trust maintained low administrative cos**ts at 5.4 percent of total revenue, in full compliance with the OPUC performance measure of 9 percent. It obtained an unmodified (previously "unqualified") financial audit opinion and strong customer satisfaction ratings in 2012, meeting additional OPUC performance requirements.
- **Kick-Start bonus offers to help offset declining state energy tax credits were in place for the first half** of 2012. Activity remained strong after they were discontinued, as did the notable growth in EPS™-rated new homes, suggesting some improvements in the economy.
- **Strategic Energy Management initiatives continued to diversify, engage more participants** and produce more results. Building on the success of SEM for industrial customers, this strategy was offered for the first time to commercial customers in 2012.
- **The OPUC approved a two-year exception to cost-effectiveness requirements** requested by Energy Trust for several specific gas and electric measures, stemming from the low cost of natural gas.

[1]This document reports net savings, which are adjusted gross savings based upon results of current and past evaluations.

[2]This report includes the best available energy savings data as of the date of submission. Energy savings reported here for periods prior to January 1, 2012, may be different than previously reported as a result of applying updated evaluation factors to Energy Trust funded program savings in Oregon through our annual true up process. The full True Up 2012 Report is available online at www.energytrust.org/library.

[3]The gas savings do not include NW Natural results in Washington. These results are reported in Appendix 5, pages 53-63.

- **The OPUC issued new rules permitting Energy Trust and its collaborating utilities (**PGE, Pacific Power, NW Natural and Cascade Natural Gas) to revise their data sharing agreements. The new rules allow Energy Trust and utilities to share information that will enable Energy Trust to better serve customers.
- **Energy Trust continued supporting pilots to test innovative financing and enhanced service** approaches, including behavior-focused Personal Energy Reports to motivate homeowners to save energy, Clean Energy Works Oregon and Oregon Cool Schools, the latter involving collaboration with the Oregon Department of Energy.
- **During 2012 approximately 2,700 Oregon and Washington trade ally contractors**, allied professionals and retailers participated in Energy Trust's Trade Ally Network. Three hundred trade and program allies were added in 2012. Attendance at quarterly roundtable meetings and trainings around the state continued to grow.
- **In 2012 the net economic impacts of Energy Trust** expenditures, energy savings and renewable energy generation added $230 million to the local economy, including $64 million in wages, $19 million in income to small businesses and employment equivalent to 1,370 full-time jobs lasting a year.[4]

Cumulative and total annual results

- **Since 2002, annual savings total** 368 aMW of electricity and 28.2 million annual therms of natural gas, equal to 77 percent of our 2014 electric goal and 81 percent of the 2014 gas goal. (Totals include 21 aMW of savings from self-direct customers.)
- **Since 2002, annual generation equals** 110 aMW of renewable energy, approximately 88 percent of the 2014 goal of 124 aMW.
- **Total electric savings and generation since 2002** represent enough clean energy to power nearly 370,000 Oregon homes. Total gas savings represent enough fuel to heat approximately 55,600 Oregon homes with natural gas for a year.
- **Since 2002, Energy Trust has cumulatively added $2.7 billion to the local economy,** including $793 million in wages, $155 million in small business income and employment equivalent to 22,400 full-time jobs lasting a year.[5]
- **Air quality improvements stemming from Energy Trust investments** have kept more than 8.4 million tons of carbon dioxide out of the atmosphere, the equivalent of removing nearly 1.5 million cars from Oregon roads for one year.

B. Residential sector highlights

- **Combined residential sector savings exceeded the sector's 2012 electric stretch savings goal** by 5 percent and met its gas savings goal.
- **Residential sector savings represented 30 percent and 43 percent, respectively, of Energy Trust's electric and gas savings** in 2012. Nearly 17,000 new and existing homes received Energy Trust services in 2012. In addition, approximately 39,000 efficient heating equipment and other appliances were purchased in 2012, and more than 20,000 old refrigerators and freezers were recycled.

[4] [5] The net economic benefit of Energy Trust expenditures, savings and generation is calculated from an independent analysis by ECONorthwest completed in 2012.

- **In 2012, six Personal Energy Reports were sent bimonthly to 60,000 residential customers** served by both PGE and NW Natural, completing the second year of this behavior change pilot. The reports provide data on the recipient's home and similar homes nearby, motivating the recipient to take energy-saving actions.
- **Recipients of the Personal Energy Reports collectively have saved** more than 17 million kWh and 344,000 therms by reducing household energy use. Additional testing is planned in 2013 to assess the persistence of these savings over time and to expand the offering to targeted Pacific Power customers with high annual usage. Average savings per participating household in 2012 were 184 kWh and six therms.
- **Expanded outreach to trade allies in 2012** included—in addition to quarterly roundtable sessions—the formation of trade ally stakeholder groups and a Home Performance with ENERGY STAR® conference attracting more than 100 attendees. An offer to supply compact fluorescent light bulbs and water conservation devices for trade allies to install in their customers' homes drew 26 participating contractors, resulting in additional cost-effective savings at sites served by these trade allies.

Existing Homes

- **Existing Homes surpassed 2012 stretch savings goals for three utilities**—PGE, Pacific Power and NW Natural—and achieved 95 percent of the stretch savings goal for Cascade Natural Gas.
- **Shifting more program delivery to trade allies** was a focus in 2012. Energy Trust increased its support for business development, cooperative marketing, equipment reimbursement, training and online enrollment and incentive forms. This empowered the program's 560 trade allies to reach more customers at lower cost to Energy Trust. Support for this transition will continue in 2013.
- **The program supported weatherization retrofits for approximately 8,000 homes** in 2012, including 1,650 comprehensive, whole-house retrofits through the Home Performance with ENERGY STAR track. Approximately 1,250 of the Home Performance retrofits were provided through Clean Energy Works Oregon—which works with Energy Trust to demonstrate financing and other enhanced services for whole-home energy retrofits.[6]
- **Key single measures driving overall savings** were gas hearths, ENERGY STAR gas tank water heaters and ductless heat pumps. Approximately 1,200 efficient gas hearths were installed in 2012, compared to 1,000 in 2011. The gain is attributed to successful marketing through utility communications and retail point-of-sale materials.
- **Customized Energy Saver Kits were introduced in 2012,** a strategy to address the transition from incandescent lamps to CFLs that is being accelerated by the Energy Independence and Security Act of 2007, which sets new federal efficiency standards for light bulbs, necessitating a shift toward specialty bulbs. In place of the standard kit with four CFLs previously in use, customers now receive a customized assortment of CFLs, specialty bulbs and water-saving devices based on answers to a short online questionnaire about their home. More than 48,000 kits were delivered in 2012.
- **Online Home Energy Reviews proved popular in 2012, the first full year they were promoted** along with in-home and phone reviews. More than 65 percent of Home Energy

[6] Energy Trust totals vary from Clean Energy Works Oregon's due to data entry timing.

Reviews in 2012 were completed through use of the online tool, reducing program costs and speeding customer connection to trade allies.

- **Savings Within Reach, serving moderate-income homeowners, continued to grow** in 2012. Nearly 640 homes participated, a 41 percent increase over 2011. Matching incentives up to $1,000 per home from the Energize Clackamas initiative were a significant factor in this growth.
- **Energy Trust supported energy-efficiency education in 331 Oregon schools** during 2012 through delivery of the LivingWise educational kits with a curriculum developed by Energy Trust, provided free to sixth-grade teachers. Using the curriculum, more than 20,000 students studied energy-efficiency opportunities and installed CFLs and water-saving devices in their homes, resulting in corresponding energy savings.
- **The program developed a methodology and approach for an Existing Home EPS,** working with Energy Trust's Conservation Advisory Council and key stakeholders to design an energy performance rating product that maintains fuel neutrality and is technically credible. In fall 2012, the program worked with Earth Advantage to deliver "Introduction to EPS" trainings to Home Performance with ENERGY STAR trade allies, and to customize the Earth Advantage software tool to electronically submit customer projects for Energy Trust paperless incentive processing.
- **Existing Homes began transitioning to a new Program Management Contractor, Fluid,** in fall 2012, following a competitive proposal solicitation and review. The transition will continue through Q1 2013.

New Homes and Products

- **New Homes and Products achieved 80 percent and 91 percent**, respectively, of its 2012 electric and gas stretch savings goals. Results in Cascade Natural Gas territory exceeded stretch goal.
- **In 2012 the program supported 1,320 highly efficient new homes with EPS**, an energy performance score developed by Energy Trust**—**nearly double the program goal. Thirty-nine percent of these homes were submitted in Q4. The total number of EPS-rated new homes since inception in 2009 now exceeds 3,000.
- **EPS-rated homes gained a 25 percent market share in 2012,** same as in 2011, even though a new, more stringent code taking effect in 2012 raised energy-efficiency specifications by 10 percent. The slowly recovering economy gets some credit for this success, along with Energy Trust market support for builders and verifiers.
- **SolAire Homes built a residence in Central Oregon with a best possible EPS of zero**, the lowest score the program has seen. The home is the first "net-zero energy" home to receive an EPS.
- **By the end of 2012, most EPS-rated homes were scored by independent verifiers** rather than the program. Energy Trust collaborated with NEEA to recruit and train 30 independent verifiers during 2012—one example of Energy Trust work to transition elements of the program to the market.
- **The 2012 air sealing pilot treated 340 new homes that did not participate in EPS.** The pilot is expected to transition to a regular offering in 2013 and continue supporting insulation

and drywall subcontractors to decrease the air leakage in new homes that do not pursue an EPS.

- **Savings from efficient home products were lower than expected in 2012,** reflecting a slowdown in CFL retail sales and the conversion by a major retailer of specialty CFLs to LED lamps in the last quarter of 2012. Although selling in lower volumes, LED sales accounted for about 8 percent of fourth quarter savings from retail lighting.
- **"Carry Home Energy Savings" kits and CFLs were distributed through strategic collaborations.** Community action agencies serving Oregonians in need distributed approximately 5,400 kits in 2012. In addition, PGE distributed CFLs and efficient showerheads through its community offices.
- **Energy Trust participated in the Western Regional Utility Network,** in which utilities from seven states and the Bonneville Power Administration, BPA, seek to align their work with retail and manufacturers on point-of-sale lighting messaging, instant rebates and efficiency specifications for refrigerators and clothes washers.

C. Commercial sector highlights

- **Commercial sector savings** achieved 120 percent of the 2012 electric stretch savings goal and 127 percent of the gas stretch savings goal.
- **Commercial savings represented 42 percent of Energy Trust electric savings and 42 percent of gas savings** in 2012. Approximately 4,600 sites were served during 2012, representing a wide variety of business types and widely dispersed locations throughout areas served by Energy Trust. Since 2009 commercial sector savings have more than doubled.
- **Considerable penetration into small commercial markets** was achieved in 2012 across both commercial programs. Recognizing the potential, programs focused their offerings for smaller commercial enterprises by specific market type.
- **Existing multifamily sites served in 2012 is more than double the number in 2011.** The growth is attributed to incentives paid to distributors to buy down the cost of high-efficiency appliances and equipment marketed to multifamily property owners and managers.
- **Programs focused on tools and training to help customers make a business case** for energy efficiency and prioritize possible projects, supported by Program Management Contractors.
- **While the economy remains a factor for this sector, programs are gaining traction.** More participants are returning with follow-on projects. Both Existing Buildings and New Buildings are employing account management with larger customers to sustain relationships and support repeat participation. Programs are focusing on tools and training to help customers make a business case for energy efficiency and prioritize possible projects.
- **Energy Trust supported Oregon's Cool Schools initiative**, in collaboration with the Oregon Department of Energy, providing schools with audits and project assistance. Energy Trust reached out to approximately 30 districts in 2012. Eight of these districts completed projects in 2012, and more are expected to complete in 2013.
- **Overall, the commercial sector served 90 K-12 school facilities in 2012,** and 33 additional school projects initiated in 2012 are scheduled to complete in 2013.
- **Energy Trust continued engagement in MPower Oregon**, an on-bill financing pilot developed in collaboration with local, regional and national organizations. The first capital projects from this initiative are expected to begin during the second half of 2013.

Existing Buildings

- **The program met its 2012 electric stretch goal and exceeded its gas stretch goal** by 38 percent.
- **The pipeline for 2013 is stronger than ever** before in the program's history, representing potential savings of 50 million kWh and 1.1 million annual therms. Energy Trust attributes the robust pipeline to the combined effect of expanded business development outreach and customers' growing confidence in a stabilizing economy.
- **Existing Building's Kick-Start bonus attracted 1,385 projects in 2012** by offering a 20 percent bonus for projects enrolled by June 29, 2012, intended to help counter uncertainty about Oregon business energy tax credits. Savings from these projects represent 14 percent of 2012 commercial sector gas savings and 26 percent of annual electric savings.
- **Operations and maintenance projects accounted for a growing portion** of 2012 results, 26 percent of gas savings and 6 percent of electric savings. These included rooftop HVAC unit tune-up projects, which increased by 29 percent in 2012 compared to 2011. Additional savings came from SEM participants.
- **In 2012, its first year, seven of the commercial SEM pilot's** nine participating companies completed projects, achieving combined savings of 6 million kWh and 127,000 therms. These results represent an average of 5 percent electric savings and 7 percent gas savings from behavioral and operations improvements at each site, aligning well with SEM results in the industrial sector.
- **A large share of activity in 2012 came from sites less than 10,000 square feet—**30 percent of measures and 44 percent of the sites participating in Existing Buildings.
- **Other important contributions to 2012 Existing Buildings savings** came from Building Operator Certification scholarships and the Plug Load initiative, which provides incentives to computer manufacturers to produce more energy-efficient models of computer desktops, monitor and servers.
- **Four projects in a comprehensive lighting pilot, managed in coordination with NEEA,** completed in 2012. The pilot offers richer incentives and helps building managers install projects with comprehensive upgrades to lighting and lighting controls. The four projects saved 213,000 kWh—72 percent more savings than would have been expected had they followed the typical practice of incremental lighting upgrades.
- **Savings from retrofit of multifamily properties grew** in 2012. Compared to 2011, electric savings increased 33 percent and gas savings increased 106 percent, reflecting the continued growth in custom opportunities identified through studies conducted in 2011.
- **High-performance showerheads and faucet aerators** were installed in more than 21,000 multifamily housing units and accounted for the majority of multifamily savings in 2012. Compared to 2011, the proportion of these installations declined, reflecting growth in custom track projects, common-area lighting and distributor incentives intended to lower appliance retail prices.
- **Relationships with major multifamily property management owners and companies**, along with instant-savings measures, custom measures and incentives paid to distributors, resulted in historically high savings from multifamily projects with minimal growth in 2012 incentive expenditures.

- **The program selected a new Program Management Contractor, ICF International,** in 2012. The transition to ICF will be complete by the end of Q1 2013. Multifamily efforts continue being managed by Lockheed Martin under a separate contract.

New Buildings

- **New Buildings closed the year at or ahead of stretch goals**—190 percent of the program's 2012 stretch electric savings goal and 100 percent of its 2012 stretch gas savings goal.
- **The program closed 317 projects in 2012**, a 4 percent increase over 2011, and enrolled another 385 projects for future completion.
- **Data centers were a significant source of highly cost-effective savings in 2012** and are well represented in the pipeline for completion in future years. In response to Oregon's unprecedented growth in data centers over the past several years, New Buildings launched a data center offer that streamlines the process for obtaining incentives and meets the needs of projects ranging from office buildings using less than 10 kW to server "farms" drawing power in excess of 10 MW.
- **Small buildings represent a relatively large portion of projects and savings**—85 percent of all projects in 2012 were small commercial buildings—accounting for 30 percent of electric savings (excluding small data centers) and 50 percent of gas savings. Small commercial buildings are 70,000 square feet or less in size; many small commercial properties served by Energy Trust are less than 20,000 square feet.
- **Four projects from the 2009 Small Commercial Pilot completed in 2012.** Results from the pilot informed the development of new offers described below.
- **To better serve the most common types of small commercial buildings,** the program developed and began offering market-specific packages with tiered incentives for restaurant, multifamily, office, school and retail buildings. The offers are comprehensive packages of measures with modeled savings that eliminate the need for more costly integrated design for small projects, which typically use a design-build approach.
- **As the economy strengthens, New Buildings is assisting a growing number of industrial** projects. New Buildings often assists with the building shell, while Production Efficiency supports manufacturing processes and equipment.
- **A solar-ready initiative, designed in 2012 for launch in 2013, will help train** architects and engineers in designing buildings for easier retrofit with solar electric and water heating systems.
- **The number of program allies has grown to 71 firms,** broadening the program reach to more easily serve new customers. Program allies include architects, engineers, green building consultants, developers and others.
- **New Buildings helped prepare the market to meet more stringent requirements** of the Oregon Energy Efficiency Specialty Code and future code upgrades through work with trade and program ally networks and organizations such as the American Institute of Architects and Cascadia Green Building Council.

D. Industry and agriculture sector highlights

Production Efficiency

- **Production Efficiency ended 2012 at 92 percent of its stretch electric savings** goal and 76 percent of its stretch gas savings goal. Gas savings for 2012 were lower than expected because delays in two large gas projects moved completion into 2013.

- **Industrial savings represented 28 percent and 15 percent, respectively, of Energy Trust's** electric and gas savings in 2012. Participating sites represent a broad range of industry types and sizes and are well distributed across the state, with strong participation from both rural and urban areas.
- **The number of projects completed in 2012 equaled last year's high volume**, reflecting the strength of the program's increasingly diversified and streamlined, packaged offerings. Custom projects continued to provide the majority of the sector's 2012 savings, representing 53 percent of electric and 46 percent of gas savings. Streamlined projects, delivered through trade allies, provided 25 percent of electric and 42 percent of gas savings. Strategic Energy Management initiatives provided 22 percent of electric and 12 percent of gas savings for 2012.
- **The Kick-Start bonus, offered in the first half of 2012**, incented companies to quickly approve and begin to implement projects, despite uncertainty about state energy tax credits, by offering a 20 percent higher payment for ordering equipment within 90 days of project approval. Approximately one-third of the program's 2012 savings benefitted from this offer.
- **The program has seen six years of continuous growth of savings in the high-tech sector**, with more than 30 million kWh saved in 2012. A large part of those savings came from the first phase of a large new construction project, approved by the Energy Trust Board of Directors, which brought in more than 15 million kWh in savings in 2012.
- **The first 10 Scientific Irrigation Scheduling projects completed in 2012**, helping farmers across the state save energy and water by using soil monitors and weather station data to understand evaporation rates and fine-tune irrigation.
- **In their fourth year in 2012, behavior-based SEM offerings** have reached maturity, continuing to attract more participants and produce growing results. Industrial Energy Improvement is the program's longest running SEM offering, providing year-long intensive training and technical support through a peer network, or cohort, model. Corporate SEM provides similar training, technical support and incentives and is delivered one-on-one. The Core Improvement pilot is a scaled version of IEI for smaller industries.
    - **Eight manufacturers participating in the fourth IEI cohort**—ranging from metal producers to wastewater treatment facilities—secured more than 16 million kWh and over 80,000 annual therms. Direct savings from IEI derive from low- and no-cost operational changes, while additional savings are expected from an improvement in customers' motivation and execution of larger projects. A preliminary analysis of the first two years of IEI (2009 and 2010) suggests participating sites doubled the number of capital energy-efficiency projects implemented after completion of the effort compared to prior years.
    - **Corporate SEM served six sites in 2012.** Corporate SEM is well suited for larger sites located in areas of the state that lack the critical mass of participants for a cohort based approach, or for single companies with multiple sites seeking to create their own smaller cohort.
    - **The first cohort of the Core Improvement pilot enrolled 12 small to mid-sized** industries during the fall. During the recruitment process, another 15 companies expressed strong interest in participating in the next cohort tentatively planned for 2013. In addition to the operations and maintenance savings some participants are already seeing, several capital projects have spawned from the first cohort. Energy Trust is one of the first in the nation to offer SEM for small manufacturing.

- **Semiannual Breakfast of Champions events helped create a learning community** among current and former participants in SEM offerings. The Breakfast of Champions brings together energy champions and executive sponsors from more than 40 companies for ongoing training, networking and peer-to-peer coaching. These events help keep participants focused on their SEM programs, deepen their understanding of SEM practices and provide new ideas for continuous energy improvement.

- **Drawing upon results of the sector's first market research study**, in 2012 the program implemented a detailed plan to increase participation and savings by improving ongoing communication between the program and participants, including:
  - **Distributed the first two issues of a quarterly customer e-newsletter, The Champion**, to 2,500 program participants and others. The newsletter provides information about program changes, new opportunities, technical updates, a calendar of training events, customer success stories and project case studies. The Champion had high open and click-through rates and engaged readers as distant as Europe and China.
  - **Expanded communication generally**, recruited customer champions as speakers at events and trainings, and leveraged customer referrals to help drive participation among other industries.
  - **Co-sponsored the second annual Oregon Leaders Awards for industrial energy efficiency** with the Oregon Department of Energy, NEEA and BPA.
- **Energy Trust continued its collaboration with the Oregon Association of Clean Water** Agencies, ACWA, to educate wastewater treatment staff on SEM practices and promote energy independence, including efficiency and renewable energy opportunities.

E. Renewable energy highlights

- **The preliminary 2012 annual total of 5.05 aMW in new generation exceeds** the annual conservative goal by 28 percent—and is 3.4 times higher than 2011 renewable energy generation.
- **A record 3.29 aMW of 2012 installed generation came from solar electric projects**—both from large-scale installations with power purchased by utilities and from standard residential and commercial systems. More than 5,000 solar electric systems have been installed with Energy Trust support since 2003.
- **The sector utilizes a portfolio approach and manages limited funding to support a range of technologies.** This approach allows the sector to remain flexible enough to respond to changing markets and pursue successful projects.
- **Two requests for proposals were issued in 2012 for non-solar projects in Pacific Power** territory. Two projects from the first RFP received funding commitments. No viable proposals resulted from the second RFP.
- **In 2012 Energy Trust committed funding for 1.12 aMW of generation from 85 projects** expected to complete in 2013 and beyond.
- **Energy Trust provided project development assistance to 18 projects across the range of non-solar technologies** in 2012. The funding was used for feasibility studies, grant-writing, permitting and project design.
- **OPUC, in collaboration with Energy Trust, developed a multifaceted renewable energy performance metric** for 2013.

Solar

- **In 2012 1,240 standard solar projects received an Energy Trust incentive**, resulting in 10 percent more new generation than in 2011—even though Energy Trust's average solar incentive rate dropped by 45 percent.
- **Three large ground-mounted solar projects were completed in 2012:**
  - The 1.8 MW Baldock project, sponsored by the Oregon Department of Transportation and located at an I-5 rest area near Wilsonville, provides power to PGE.
  - The 5.7 MW Outback project in Lake County generates power for PGE.
  - The 2.6 MW Black Cap project, also in Lake County, produces power for Pacific Power.
- **Community-led bulk buy projects featured less prominently in 2012 compared to 2011** and 2010. There were 517 bulk-purchase installs in 2010, 315 in 2011 and 243 in 2012.
- **Meanwhile, the number of residential third-party owned systems grew to 55 percent** of residential systems installed, compared to 38 percent in 2011 and none in 2010. In this model, a third-party business owns and maintains solar electric systems on residential rooftops. Homeowners lease the systems and receive the energy benefit, while the business receives the lease payments, tax credits and depreciation.
- **Another financially focused model, a production-based incentive,** is administered by Oregon investor-owned electric utilities and permits a limited number of customers to be paid directly for solar generation, without support from Energy Trust. Energy Trust helps customers understand this option through information on the website and monitors projects in this program to assure they do not receive Energy Trust incentives.

Biopower

- **Dairy gas biopower moved forward in 2012.** Energy Trust supported Revolution Energy Solutions projects at two dairies in the Willamette Valley.
- **Municipal wastewater treatment facilities increasingly turned to biopower** and are a key market segment for the Biopower program. With support from Energy Trust, Medford and Pendleton installed biogas generation at their wastewater treatment plants in 2012. Pendleton accepts grease trap waste from the surrounding area to augment the fuel from its treatment plant.
- **Energy Trust partners with ACWA in reaching out to municipal wastewater treatment** managers. The collaboration has borne fruit. In Oregon,10 out of 28 wastewater treatment plants use anaerobic digestion for electricity production, including three supported by Energy Trust, while nationally only one in 10 do so.
- **A demonstration of a wood waste gasifier**, which creates synthetic gas from biomass without combustion, was installed in Wallowa County, in combination with an organic Rankine cycle power generator.
- **Commitments were made in 2012 to 0.69 aMW of new biopower generation in future** years. In addition, Energy Trust expects 2.32 aMW of generation from biopower projects receiving commitments in past years but not completed as of the end of 2012.
- **Energy Trust hosted a Biogas Working Group meeting in April.** This was a valuable opportunity for different market players to share their successes and challenges and to learn about business opportunities in the biogas community.

Other Renewables

- **The Small Wind offering underwent several significant changes in 2012** designed to improve the ability to predict system performance and to encourage optimal turbine siting and hub height. Incentives were refocused on higher production, not capacity.
- **Although the redesign was underway, two small wind projects completed in 2012** totaling 30 kW in capacity. Both were installed in PGE service territory and are owned by small agricultural producers.
- **Outreach to prospective small wind turbine customers—on hold during program revisions—restarted** by the end of the year with a series of Energy Trust wind seminars in wind-prone locations like Pendleton and Coos Bay, and Energy Trust presence at several farm fairs.
- **Energy Trust collaborated with similarly focused organizations across the country** to form the Interstate Turbine Advisory Council, which has issued a unified list of certified and proven small wind turbines eligible for incentives.
- **The hydropower initiative supported four projects that completed in 2012**: a small project on an Eastern Oregon ranch, a municipal water project and two projects at irrigation district sites.
- **New commitments were made in 2012 for projects that will produce 0.98 aMW of new generation** when completed in future years, including a geothermal electric project at the Oregon Institute of Technology campus in Klamath Falls. An additional 0.35 aMW of power will be generated by yet-to-complete projects with earlier commitments.

IV REVENUES AND EXPENDITURES

- Received $144.8 million in Oregon public purpose and incremental revenues during 2012.
- Invested $154.1 million (including carryover funds from prior years), 11 percent more than in 2011. Of this amount, $90.8 million, or 59 percent, was for incentives.
- Paid $90.8 million in incentives for energy-efficiency and renewable energy projects.

A. Revenues

Oregon Energy Trust revenues for 2012 were below budget by $9.3 million, or 6 percent. Most of the shortfall is in gas and indicates the lower cost of gas, which is reflected in rates and therefore in public purpose revenues.

Source	Annual Actual Revenues	Annual Budgeted Revenues
Portland General Electric	$ 36,153,224	$ 34,426,653
PGE Incremental	$ 39,630,039	$ 42,722,373
Pacific Power	$ 25,168,039	$ 26,790,600
Pacific Power Incremental	$ 23,533,277	$ 24,891,198
Cascade Natural Gas	$ 1,369,612	$ 2,936,997
NW Natural	$ 17,375,847	$ 18,983,061
NW Natural Industrial DSM	$ 1,614,516	$ 3,420,205
Total	**$ 144,844,553**	**$ 154,171,087**

***Incremental revenues are those authorized under SB 838 to support capturing additional cost-effective energy efficiency savings.

B. Expenditures

Electric efficiency spending was below budget by $14.6 million for 2012, or 12 percent. Gas expenditures for 2012 were $2.6 million, or 10 percent, below budget. Savings results for 2012 were greater than the budget had assumed, while the cost per unit saved was below budget assumptions. Renewable energy program spending was $0.8 million, or 4 percent, below budget for the year.

Type	Actual Annual Expenditures	Annual Budgeted Expenditures
Energy Efficiency Programs	$ 127,170,657	$ 143,927,826
Renewable Energy Programs	$ 21,817,901	$ 22,642,985
Administration	$ 5,135,474	$ 5,682,716
Total	**$ 154,124,032**	**$ 172,253,527**

Source	Actual Annual Expenditures	Annual Budgeted Expenditures
Portland General Electric	$ 82,558,328	$ 92,410,385
Pacific Power	$ 46,489,608	$ 52,138,735
Cascade Natural Gas	$ 1,912,771	$ 2,686,656
NW Natural	$ 21,258,786	$ 22,156,478
NW Natural Industrial DSM	$ 1,904,540	$ 2,861,273
Total	**$ 154,124,032**	**$ 172,253,527**

C. Incentives paid

	Energy Efficiency				Renewable Energy		Total
Quarter	PGE	Pacific Power	NW Natural	Cascade Natural Gas	PGE	Pacific Power	
Q1	$ 4,157,072	$ 3,968,024	$ 1,680,134	$ 102,078	$ 3,879,801	$ 1,172,015	$14,959,123
Q2	$ 6,555,714	$ 4,272,000	$ 2,580,331	$ 129,716	$ 2,431,195	$ 1,042,570	$17,011,526
Q3	$ 6,211,712	$ 2,969,153	$ 2,296,724	$ 158,309	$ 1,884,030	$ 833,089	$14,353,018
Q4	$ 19,702,000	$ 9,509,360	$ 5,922,672	$ 682,248	$ 6,518,700	$ 2,096,974	$44,431,955
Total	**$ 36,626,498**	**$ 20,718,537**	**$ 12,479,862**	**$ 1,072,350**	**$ 14,713,726**	**$ 5,144,648**	**$90,755,622**

V SAVINGS AND GENERATION

A. Electric efficiency savings

In 2012, electric efficiency programs saved 52.9 aMW, 8 percent above Energy Trust's 2012 stretch goal of 49 aMW. From 2002 through 2012, these programs have achieved total annual savings of 368 aMW, including 21 aMW of savings from self-direct customers—representing 77 percent of Energy Trust's strategic 2014 goal.[7] This is equivalent to powering 285,450 Oregon homes for a year. The 52.9 aMW were acquired at a levelized cost of 2.7 cents per kilowatt hour.

2012 Electric Efficiency Savings	PGE aMW	Pacific Power aMW	Total Savings aMW	Expenses	Levelized Cost/kWh
Commercial	12.97	9.11	22.08	$ 46,055,710	2.6 ¢
Industrial	9.28	5.41	14.70	$ 26,237,111	2.6 ¢
Residential	9.98	6.11	16.09	$ 34,185,277	3.0 ¢
Total Electric Efficiency Programs	**32.23**	**20.63**	**52.86**	**$106,478,099**	**2.7 ¢**

B. Gas efficiency savings

In 2012, gas efficiency programs saved 5.9 million annual therms of natural gas, 4 percent more than Energy Trust's 2012 stretch goal of 5.7 million annual therms. Since gas programs began in 2003, total annual savings of 28.2 million annual therms have been realized, accounting for 81 percent of the 2014 goal of 34.7 million annual therms. This is equivalent to providing gas heat to about 55,600 homes for a year. The 5.9 million annual therms were acquired at a levelized cost of 37 cents per therm.

2012 Gas Efficiency Savings	NW Natural Therms	Cascade Natural Gas Therms	Total Savings Therms	Expenses	Levelized Cost/Therm
Commercial	2,315,126	161,154	2,476,280	$ 9,084,321	34 ¢
Industrial	758,325	121,062	879,387	$ 1,879,381	25 ¢
Residential	2,411,197	148,853	2,560,050	$ 14,112,395	44 ¢
Total Gas Efficiency Programs	**5,484,647**	**431,070**	**5,915,717**	**$ 25,076,096**	**37 ¢**

C. Renewable energy generation

Renewable energy generation totaled 5.05 aMW for the year, exceeding Energy Trust's 2012 conservative goal of 3.9 aMW by 28 percent. Results for 2012 are 3.4 times higher than new generation from 2011. To date, annual renewable energy generation from 2002 through 2012 totals 110 aMW, or 88 percent of the 2014 generation goal of 124 aMW.[8] This is equivalent to powering 84,550 Oregon homes for a year.

[7] Savings from self-directed efficiency projects count toward the goal of achieving 479 aMW of electric savings by 2014. To date, 21 aMW of savings have been achieved by large commercial and industrial customers via self-directed funding. Electric savings also include transmission and distribution savings.

[8] Renewable energy generation numbers include transmission and distribution savings, where appropriate.

2012 Renewable Energy Generation	PGE aMW	Pacific Power aMW	Total Generation aMW	Expenses	Levelized Cost/kWh
Biopower	0.34	0.98	1.32	$ 1,714,204	1.2 ¢
Solar Electric Program	2.32	0.97	3.29	$ 19,202,942	5.4 ¢
Other Renewable Programs	0.00	0.43	0.44	$ 1,652,691	3.5 ¢
Total Renewable Programs	**2.66**	**2.39**	**5.05**	**$ 22,569,837**	**4.2 ¢**

D. Progress toward annual efficiency goals by fuel type

	Expenditures	Savings	Levelized cost	Energy Trust Annual Goal		
					Goal	% Achieved
Electric	$106,478,099	52.86 aMW	2.7 ¢ per KWh	Conservative	41.45 aMW	128%
				Stretch	48.77 aMW	108%
Natural Gas	$25,076,096	5,915,717 therms	37.3 ¢ per therm	Conservative	4,828,295 therms	123%
				Stretch	5,680,346 therms	104%

E. Progress toward annual efficiency goals by utility

	Expenditures	Savings	Levelized Cost	Energy Trust 2012 Annual Goal			Annual IRP Goal	
					Goal	% Achieved	Goal	% Achieved
Portland General Electric	$66,325,264	32.23 aMW	2.8 ¢ Per kWh	Conservative	26.77 aMW	120%	26.11 aMW	123%
				Stretch	31.50 aMW	102%		
Pacific Power	$40,152,835	20.63 aMW	2.6 ¢ Per kWh	Conservative	14.68 aMW	141%	15.33 aMW	135%
				Stretch	17.27 aMW	119%		
NW Natural	$23,163,325	5,484,647 therms	37.1 ¢ Per therm	Conservative	4,457,803 therms	123%	4,221,268 therms	130%
				Stretch	5,244,474 therms	105%		
Cascade Natural Gas	$1,912,771	431,070 therms	38.8 ¢ Per therm	Conservative	370,492 therms	116%	368,445 therms	117%
				Stretch	435,872 therms	99%		

F. Electric efficiency results for SB 1149 and SB 838 funds

Energy Trust will complete an analysis of the allocation of 2012 savings and related costs to SB 1149 vs SB 838 funding sources, along with the summary of SB 838 expenditures by utility, in summer 2013. We will then issue an addendum to the 2012 Annual Report with three SB 1149 and SB 838 tables:

1. 2012 SB 1149 savings and costs (total and by sector)
2. 2012 SB 838 savings and costs (total and by sector)
3. 2012 SB 838 utility expenditures (total and by utility)

As in past years, Energy Trust has engaged a third party to review energy consumption data provided by utilities and determine whether a project should be funded by SB 1149 (all sites using electricity from PGE or Pacific Power are eligible) or SB 838 (limited to sites using less than one average megawatt annually). In future years, with the benefit of access to utility data permitted under the new 2012 data-sharing rules and subsequent Energy Trust-utility agreements, we will be able to perform this analysis internally.

See Appendix p. 41 for a report prepared by Pacific Power on utility activities funded through SB 838. See Appendix p. 47 for a report on the same topic prepared by PGE.

See Appendix, p. 64, for the 2012 electric efficiency results for SB 1149 and SB 838 funds; information appended to the report December 3, 2013.

VI 2012 PERFORMANCE MEASURES

The Oregon Public Utility Commission establishes minimum performance measures for Energy Trust in a variety of categories. Minimum savings and generation figures for energy-efficiency programs and renewable energy programs are set at an aggregated level rather than at an individual program or sector level. This allows Energy Trust to pursue different program strategies in the residential, commercial and industrial sectors as market forces and technological advances change.

The following OPUC minimum performance measures apply to Energy Trust 2012 results.

Electric Efficiency Performance Targets

- Electricity efficiency savings of at least 41 aMW in 2012

  Exceeded, with 52.9 aMW saved in 2012

- Levelized life-cycle cost should not exceed 4.4 cents per kWh

  Well within requirement, with 2012 average levelized life-cycle cost = 2.7 cents per kWh

Natural Gas Efficiency Performance Targets

- Natural gas efficiency savings of at least 4.5 million annual therms in 2012

  Exceeded, with 5.9 million annual therms saved in 2012

- Average levelized life-cycle cost should not exceed 52 cents per therm

  Well within requirement, with 2012 average levelized life-cycle cost = 37 cents per therm

Renewable Energy – *no renewable energy metric for 2012*

Financial Integrity

- Receive an unqualified financial opinion from an independent auditor on annual financial statements

  Full compliance, with an unmodified (unqualified) financial audit opinion for 2012

Administrative/Program Support Costs

- Keep administrative and program support costs[9] below 9 percent of annual revenues

  Well within requirement, with 2012 administrative and program support costs at 5.4 percent of annual revenues

[9] 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.

Customer Satisfaction

- Demonstrate greater than 85 percent satisfaction rates for:
    - Interaction with program representatives
    - Overall satisfaction

Energy Trust calculated customer satisfaction from telephone surveys of participants soon after project completion. Results for major programs are averaged to determine satisfaction rates. This analysis determined a 95 percent satisfaction rate for interaction with program representatives and a 96 percent overall satisfaction rate. See Appendix p. 39; information updated December 3, 2013, to reflect New Buildings satisfaction rates determined through a program process evaluation.

Benefit/Cost Ratios

- Report benefit/cost ratios for larger conservation acquisition programs for 2012[10]

Program	Combined Utility System Benefit/Cost Ratio	Combined Societal Benefit/Cost Ratio
New Homes and Products	1.8	2.0
Existing Homes	2.2	1.8
Existing Buildings	2.4	1.7
New Buildings	3.5	2.5
Production Efficiency	3.0	2.0
NEEA	3.7	1.2

[10] By law, Oregon public purpose funds may be invested only in cost-effective energy efficiency measures—that is, efficiency measures must cost less than acquiring the energy from conventional sources. Cost-effective programs therefore have a ratio greater than 1.0.

APPENDIX

Energy Trust Program Descriptions

Existing Buildings. Helping the wide range of businesses in existing commercial buildings manage their energy costs requires an equally broad selection of technical services and financial incentives. Existing Buildings offers incentives for improvements including lighting, HVAC, controls, boilers, solar water heating, foodservice equipment and insulation, as well as customized solutions and operations and maintenance improvements. Technical services include energy surveys, project planning and technical analysis, contractor referrals, project facilitation and post-installation assistance. Portions of the program are offered to NW Natural customers in Washington. Existing Buildings began in 2003 and was implemented in 2012 by Lockheed Martin Services, Inc.

Multifamily property managers have a menu of offerings for financial and service incentives for both in-unit and common-area improvements. Technical services include direct-installs of compact fluorescent light bulbs and faucet aerators in the tenant spaces, energy surveys and custom incentive solutions, as well as cash incentives for common-area lighting, appliances, insulation, windows and HVAC. Multifamily moved to the commercial sector in 2010 and was implemented in 2012 by Lockheed Martin Services, Inc.

New Buildings. This program provides incentives for energy-efficient design and equipment to support construction of high-performance commercial new buildings and major renovations of all sizes and types of buildings. Participants can leverage a comprehensive set of services and incentives. These include early design and energy modeling assistance and a wide array of standard and customized equipment incentives, including modeled savings incentives for whole-building approaches. Incentives are offered for projects that achieve Leadership in Energy and Environmental Design (LEED) certification or save energy in excess of the 2010 Oregon Energy Efficiency Specialty Code requirements. Pilot efforts in 2012 supported net-zero energy design and small commercial projects, and led to developing simple, streamlined “good, better, best” incentive packages for small retail spaces, offices, schools, multifamily properties, groceries and restaurants. Post construction, Energy Trust can help cover costs of earning ENERGY STAR® certification. New Buildings began in 2003 and is implemented by Portland Energy Conservation, Inc.

Existing Homes. Homeowners and renters can take advantage of energy-saving recommendations, referrals to qualified trade ally contractors and cash incentives for qualified improvements including weatherization; electric, gas and solar water heaters; and heating equipment. The program supports market-based Home Performance with ENERGY STAR, a diagnostic assessment conducted by Building Performance Institute-certified contractors, and Savings Within Reach, designed to provide greater assistance for moderate-income homeowners. The program offers a web-based home energy profile for residential customers, as well as phone-based and in-home energy reviews. Customized Energy Saver Kits may be ordered online. The program is testing behavior change strategies through a pilot sending quarterly Personal Energy Reports to a sample of customers. Existing Homes supports referrals to Clean Energy Works Oregon, an initiative offering financing and repayment options for comprehensive home retrofit projects. Portions of the program are offered to NW Natural customers in Washington. Existing

Homes has been offered since 2003. The program was implemented in 2012 by Conservation Services Group.

New Homes and Products. New Homes seeks to expand the market share of energy-efficient homes in Oregon by creating homebuyer demand and training the contractors who build them. Qualified new homes Energy Trust supports receive an EPS™ rating. EPS is an energy performance score useful in guiding homebuyers, just as a miles-per-gallon rating helps consumers shop for cars. New Homes provides builders with tiered incentives tied to increased efficiency levels and incentives for integrating solar. In addition to builders, the program works with architects and real estate professionals, and encourages the sale of energy-efficient manufactured homes by local retailers. Products offers include cash incentives for purchase of ENERGY STAR qualified clothes washers, refrigerators, freezers, lighting and showerheads, and for the recycling of old refrigerators and freezers. The program also promotes the Change a Light, Change the World CFL fundraiser for schools and nonprofits, provides energy-saving kits to food pantries to deliver to their clients, and distributes showerheads through water bureaus and districts throughout the state. Portions of the program are offered to NW Natural customers in Washington. New Homes and Products began in 2004 and is implemented by Portland Energy Conservation, Inc.

Production Efficiency. Industrial and agricultural businesses of all types and sizes look to Production Efficiency for technical services and cash incentives to help them identify and implement electric and natural gas energy-efficiency projects and practices. Energy Trust engages highly skilled industrial energy engineers to advise Oregon businesses on how to make the most of opportunities to reduce energy-related operating costs while improving productivity, product quality and environmental performance. The program works closely and consultatively with industries long-term, helping these businesses employ best practices and continuously improve their energy performance. Production Efficiency began in 2003 and is managed internally.

Solar Electric. This program helps homeowners, businesses and governments supplement their electricity needs with on-site solar generation. The program provides cash incentives for net-metered solar electric installations, educates consumers about solar purchasing and financing options and ensures high-quality installations through design review and verification. When additional funds are available, the program also supports custom, large-scale solar projects. The program aims to develop a long-term, stable market for solar in Oregon by building consumer awareness, sponsoring technical training for the trades and supporting state and local efforts to reduce costs and streamline permitting practices for solar. Solar Electric began in 2003 and is managed internally.

Biopower. The Biopower program provides financial incentives, cost-shared grants for feasibility studies, technical assistance and other support for projects that generate electric power from organic residues. Eligible fuels include biogas from sewage treatment facilities, food processing and agriculture, and the organic fraction of municipal solid waste; solid organic fuels from mill waste, forest and field residues, and urban wood waste; landfill gas; and dedicated energy crops available on a renewable basis. The goal of the program is to expand Energy Trust's portfolio of biopower projects and to improve market conditions for the development of these projects. Biopower began in 2005 and is managed internally.

Other Renewables. This program provides support for renewable energy projects that generate electricity using wind, hydropower and geothermal technologies. The program provides custom incentives for projects with generating capacities of 20 megawatts or less and a standard incentive program for small wind systems up to 50 kilowatts in capacity. Custom incentives are calculated after a thorough, multi-disciplinary technical and financial review of project applications. To ensure projects are well executed, incentives are paid upon successful project completion and inspection. In addition to incentives, the program offers various kinds of project development assistance for the early stages of projects. This includes financial and technical assistance for feasibility studies, resource characterization, site assessments, anemometers, grant-writing, initial design, permitting and interconnection cost development. The goal of the program is to expand Energy Trust's renewable energy portfolio across a range of technologies and to improve market conditions. Other Renewables started in 2003 and is managed internally.

Northwest Energy Efficiency Alliance. NEEA is a nonprofit organization working to maximize energy efficiency to meet our future energy needs. In 2012, Margie Harris, Energy Trust executive director, served as vice chair of the NEEA board of directors. Beginning mid-year, she stepped in as acting chair to fill a vacancy. NEEA is supported by and works in partnership with Bonneville Power Administration, Energy Trust and more than 100 Northwest utilities for the benefit of more than 12 million energy consumers. NEEA uses the market power of the region to accelerate innovation and adoption of energy-efficient products, services and practices. NEEA has delivered market transformation savings under contract to Energy Trust since 2002.

NW Natural Industrial Demand-side Management Program

Since 2009, Energy Trust has provided service to NW Natural's Schedule 31 and 32 non-transport customers, funded through a special rate adjustment mechanism rather than through the public purpose charge. Program costs and therm savings for these customers in 2012 are included in the body of this annual report as a portion of NW Natural savings and reported separately below.

Program/Customer Type	2012 Annual Therms Saved	2012 Expenditures	2012 Levelized Cost
Production Efficiency	625,287	$ 1,158,969	22.9 ¢
Existing Buildings	275,501	$ 620,472	21.8 ¢
New Buildings	63,895	$ 125,099	14.5 ¢
Grand Total	**964,683**	**$ 1,904,540**	**21.4 ¢**

2012 Energy Trust of Oregon Board of Directors

PRESIDENT—John Reynolds, Eugene, is a professor of architecture emeritus at the University of Oregon and a fellow of the American Institute of Architects. He 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 chair of the American Solar Energy Society, president of Solar Energy Association of Oregon and member of the board of the International Solar Energy Society. He has served on the Oregon Alternate Energy Commission and the Energy Committee of the Building Codes Structures Board. *John has served as president since 2008 and has served on the board since Energy Trust's inception 11 years ago.*

VICE PRESIDENT—Debbie Kitchin, Portland, is the co-owner of InterWorks LLC, a construction company engaged in commercial tenant improvement and renovation and residential remodeling services. InterWorks is an award-winning contractor specializing in sustainable building practices. 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 three years. Debbie is treasurer of the Portland Business Alliance, vice president of the Central Eastside Industrial Council and a board member of the Portland Building Owners and Managers Association. She is a past president of the Portland Commercial Real Estate Women. *This is Debbie's second term as vice president.*

SECRETARY—Rick Applegate, Portland, is the principal at Applegate Consulting, specializing in natural resource policy, environmental banking and restoration, strategic planning and facilitation. During the 10 years he served as Portland Harbor Superfund administrator for the City of Portland, Rick was responsible for coordinating the city's work on the lower Willamette River clean up. He served as administrative assistant and in senior legislative positions in the U.S. Senate and House of Representatives. Since then he has worked for more than 30 years on energy and environmental issues, principally as an advocate for salmon and their watersheds. He was the fish and wildlife director for the Northwest Power Planning Council, West Coast conservation director for Trout Unlimited, assistant regional administrator of the Habitat Conservation Division and senior policy advisor at the National Oceanic and Atmospheric Administration's National Marine Fisheries Service. He was the chair of the U.S. Southern Stakeholders Pacific Salmon Treaty Negotiations and a member of the Pacific Northwest Comprehensive Energy Review. *Rick has served as secretary since November 2011.*

TREASURER— Dan Enloe, Portland, is supply chain manager at Intel Corporation in Hillsboro, where he has worked in varying capacities since 1984. Prior to 1984, he was on active duty in the U.S. Navy and served as a nuclear submarine officer. Since leaving active duty, he served with the Naval Reserve, completed six reserve command tours and retired as a captain in 2009. He is a member of the Naval Reserve Association, the American Legion and the Navy League. A graduate of the U.S. Naval Academy with a degree in electrical engineering, Dan holds two patents. *Dan has served as treasurer since November 2011.*

Joe Benetti, Coos Bay, is a long-time restaurant owner and civic leader. He is chair of the Southwest Oregon Regional Airport Commission and a board member and past chair of the Oregon Restaurant and

Lodging Association. He served three terms as mayor of Coos Bay, 12 years as a Coos Bay city councilor and six years as city council chair. In other public service positions, Joe served on and chaired the Coos Bay-North Bend Promotions Committee, the Coos Bay Urban Renewal Agency and the Coos County Urban Renewal Agency. He also has served on the executive board of the Bay Area Chamber of Commerce and currently represents the airport commission on that board. His restaurant, Benetti's Italian Restaurant, is located on South Broadway in Coos Bay.

Julie Brandis, Corvallis, is the director of corporate relations for the Oregon State University Foundation. She connects local, regional and national companies to the university through its first comprehensive fundraising effort, The Campaign for OSU, by matching their research and employment needs with internationally recognized researchers and high-achieving OSU students. Previously, she spent 17 years as the energy lobbyist for Associated Oregon Industries, Oregon's largest business advocacy organization, including during the period of time when SB 1149 was negotiated and enacted.

Ken Canon, Myrtle Creek, founded in 1981 the Industrial Customers of Northwest Utilities, a regional trade association focused on electric energy issues. Since retiring from that role in 2005, Ken chaired a committee that examined the performance of the Northwest Energy Efficiency Alliance and also managed the Northwest Energy Efficiency Task Force. Earlier in his career, while working for Associated Oregon Industries, he drafted and helped enact Oregon's Business Energy Tax Credit. Later, he helped implement a comprehensive energy-efficiency program at an International Paper mill. He has a long history of organizing, managing and advising nonprofit organizations. Applying his expertise to residence, Ken built the first ENERGY STAR® home in Douglas County. Ken, a life-long Oregonian, was born and raised in Medford and graduated from Southern Oregon University and Willamette University College of Law.

Jason Eisdorfer, Portland, is a greenhouse gas policy strategist for the Bonneville Power Administration, a federal agency serving the Pacific Northwest. He serves as the senior technical consultant and advisor to BPA on the development and implementation of strategic objectives, policies and programs related to global, national and state greenhouse gas and carbon dioxide issues. He served as legal counsel and energy program director of the Citizens' Utility Board of Oregon from 1994 - 2008. At CUB, he represented residential consumers in numerous rate cases and policy dockets before the Oregon Public Utility Commission. He has co-authored legislation related to electric utility operations and to climate change, including the Oregon Renewable Energy Act and the Climate Change Integration Act, both of 2007. He is an adjunct professor at Lewis and Clark Law School and the University of Oregon School of Law. Prior to joining CUB, he was an attorney with the U.S. Department of Agriculture, Office of General Counsel, and served an appointment as a special assistant U.S. attorney. He received his law degree from the University of Oregon School of Law and received certificates of completion in the Environment and Natural Resources Program and the Ocean and Coastal Program. He received his Bachelor of Arts degree from the University of Chicago. *Jason resigned from the board in May 2012 after accepting a position with the OPUC.*

Roger Hamilton, Eugene, is a consultant with Western Grid Group, an organization that promotes transmission access for renewable energy projects across the West. He also consults with The Resource Innovation Group on climate change adaptation and mitigation. He owns and operates a cattle and hay ranch in south-central Oregon. He has spent many years in public service as a Klamath County

commissioner, an advisor on energy and watersheds to Governor John Kitzhaber and an Oregon Public Utility commissioner. He has also served on the Oregon State Parks Commission and the National Association of Public Utility Commissioners. He currently serves on the board of directors of the Regulatory Assistance Project.

Julie Hammond is the branch manager of Beecher Carlson in Bend. She has more than 20 years experience in the insurance industry. Julie recently served Deschutes United Way as campaign chair. She brings a customer service orientation, small business perspective and regional representation to her service for Energy Trust. *Julie resigned from the board in March 2012.*

Anne Haworth-Root, Medford, is co-owner and general manager of EdenVale Winery and Eden Valley Orchards, a destination winery, historic pear orchard and events center in southeast Medford. A second tasting room called Enoteca is located in Ashland. An award-winning entrepreneur, she developed the concept and helped found the Oregon Wine and Farm Tour, an agritourism coalition of Southern Oregon wineries, historic farms and specialty food and cheese companies. Haworth-Root is a graduate of Southern Oregon University, where she was student body president and chair of the Oregon Student Lobby. She pursued postgraduate studies in the Master of Commerce program at Wollongong University in Australia.

Mark Kendall, Salem, has more than 33 years of experience in energy management and renewable resource development in Oregon. Prior to founding his own consultancy, Kendall Energy, in 2009, he spent 19 years with the Oregon Department of Energy working in commercial and industrial energy management policy, including serving as the governor's appointee to the Northwest Energy Efficiency Alliance board from 2001-2006. Before working for the state, he spent 11 years with the Eugene Water and Electric Board. He also served on the Oregon Low Carbon Fuel Standard Advisory Committee, and facilitated the 2009 Industrial Greenhouse Gas Reduction subcommittee of the Oregon Global Warming Commission. He received his bachelor's degree from Linfield College with an emphasis in communications and energy management, and his master's degree in organizational development from the Leadership Institute of Seattle City University. *When Jason Eisdorfer resigned from the board in May 2012 after accepting a position at the OPUC, Mark was elected to the board in August 2012 to serve the remainder of the three-year term, which will expire in February 2015.*

Jeff King, Portland, has a long history in the energy industry, including more than 25 years with the Northwest Power and Conservation Council. At the council, Jeff analyzed issues associated with the development and operation of electric power generation resources; prepared the council's forecasts of regional power prices, generation development and carbon dioxide production; and staffed the Northwest Wind Integration Forum. While at the council, Jeff engaged with utilities, government agencies, power project developers and public interest groups, including service as the council's representative on the Energy Trust Renewable Energy Advisory Council. Prior to his position at the council, Jeff worked as a staff engineer at the U.S. Department of Energy Pacific Northwest Laboratories. Following retirement, Jeff continues part-time consulting on energy related issues. Jeff joined the Energy Trust Board of Directors in 2011.

Alan Meyer, Salem**,** is director of energy management for Weyerhaeuser Company, a diversified forest products manufacturing company. He is responsible for coordinating energy management activities at

numerous manufacturing facilities throughout North America. Prior to joining Weyerhaeuser, he was director of energy for Willamette Industries, holding similar responsibilities. He also worked for PacifiCorp as the Oregon large industrial accounts manager. He serves on the board of directors of Industrial Customers of Northwest Utilities, a nonprofit advocacy organization focused on energy policies. He has also served for more than 20 years on the City of Salem Morningside Neighborhood Association board.

Dave Slavensky, Bend, is chief operating officer for Structus Building Technologies, a Bend manufacturing company specializing in construction products. Prior to Structus, he worked as a manufacturing consultant with Oregon Manufacturing Extension Partnership, as vice president of operations at KVP in Sacramento and as a consultant with the California Manufacturing Technology Center. He also spent five years working for Aircon Energy, Inc., an energy management and HVAC service company founded by his father. In 2007 Dave co-founded the High Desert Enterprise Consortium, a group of companies in Central Oregon committed to employing Lean Manufacturing principles to improve their businesses. He has conducted professional seminars in numerous process improvement techniques including Lean, Kaizen and Just-in-Time. Dave has been a member of the Bend Economic Development Advisory Board since 2009, and was the president of the Cascades Mountaineers in Bend from 2008 - 2010. *Dave was elected to a standard three-year term on the board in May 2012.*

ex-officio

John Savage, Salem, is one of three Oregon Public Utility Commissioners. He joined the staff of the Commission in 2002 as Director of its Utility Program, after serving as Director of the Oregon Department of Energy from 1993 - 2002. He was Administrator of the Department of Energy's Policy and Planning division from 1987 - 1993. He received a master's degree in natural resource economics from Oregon State University in 1979 and a Bachelor of Science degree from Oregon State University in 1975.

Oregon Department of Energy Special Board Advisor

Bob Repine, Salem, then acting director of the Oregon Department of Energy, served as special advisor until December 2012, when **Lisa Schwartz** was appointed the Oregon Department of Energy director. Lisa has more than 25 years of experience in energy policy, regulation and education. She began state service in 1987 as assistant administrator of the Oregon State University Extension Energy Program. Joining the Oregon Department of Energy for the first time in 1995, she helped establish oversight mechanisms for the state's new third-party administrator for energy efficiency and renewable energy—Energy Trust. At the OPUC from 2002 through early 2009, she directed analysis of electric utility resource plans and competitive bidding processes, and helped develop the state's Renewable Portfolio Standard. Before re-joining the Oregon Department of Energy, she was senior associate at the Regulatory Assistance Project and recently served on the Western Electricity Coordinating Council's Transmission Expansion Policy Committee.

Board Development Guidelines

Energy Trust's board of directors is a non-stakeholder, volunteer board. The board oversees Energy Trust management, provides strategic and policy direction and approves the organization's budget and major expenditures. The board carries out its oversight role collectively and through several committees. The board's bylaws ensure that Energy Trust board meetings and other processes are clear, open and accessible to the public.

The Oregon Public Utility Commission grant agreement with Energy Trust calls for the Energy Trust board to include the skills, broad representation and diversity necessary to achieve the nonprofit's mission.

The initial board of directors included nine members from a variety of energy and business backgrounds, and one non-voting *ex-officio* member from the OPUC. As board openings arise, the board consults advisory councils, individuals and collaborating organizations to identify candidates with appropriate experience from throughout the state. To allow further diversity, the board expanded its size to 13 voting members.

The 2012 board includes voting members with background in business (agriculture, industry/ manufacturing, construction/remodeling, restaurant), private consulting, nonprofit and higher education. Members come from Bend, Coos Bay, Corvallis, Eugene, Medford, Myrtle Creek, Salem and the Portland area. Of the 13 voting members at the end of the year, three were women. The board's OPUC *ex-officio* member is Commissioner John Savage. The board created an additional non-voting position for an appointee of the Oregon Department of Energy. Bob Repine, acting director of the ODOE, occupied this "special advisor" position for most of 2012. He was succeeded in December by the newly appointed ODOE director, Lisa Schwartz.

All new members participate in an orientation session and are provided handbooks containing historical information, policies, plans, budgets and program descriptions. The majority of board members also participate on advisory councils and board committees. All regular board and advisory council meetings and background information are public. Advisory council and board meetings are well attended, and public comment is included in every meeting.

All regular board members complete and sign disclosure of economic interest forms each year. The OPUC *ex-officio* board member and the special advisor from the Oregon Department of Energy do not receive confidential information. Once each year, board and staff members participate in a planning session to review progress and discuss Energy Trust's strategic direction. Board development is a part of this public planning session, if warranted.

2012 Advisory Council Members and Meetings

Conservation Advisory Council

Jim Abrahamson, Cascade Natural Gas
Brent Barclay, Bonneville Power Administration
Jeff Bissonnette, Fair and Clean Energy Coalition
Bruce Dobbs, Building Owners & Managers Association
Joe Esmonde, IBEW 48
Wendy Gerlitz, Northwest Energy Coalition
Charlie Grist, Northwest Power and Conservation Council
Karen Horkitz, NEEA
Scott Inman, Oregon Remodelers Association
Juliet Johnson, Oregon Public Utility Commission
Andria Jacob, City of Portland
Don Jones, Jr., PacifiCorp
Don MacOdrum, Home Performance Guild
Holly Meyer, NW Natural
Stan Price, Northwest Energy Efficiency Council
Anne Snyder-Grassman, Portland General Electric

2012 Meeting Dates	Major Discussion Topics
February 15	2011 preliminary results; 2012 program initiatives and pilots; EPS for Existing Homes
April 18	New incentive changes for Existing Homes; Industry and Agriculture 2011 trends, measures, markets and sources of savings; EPS for Existing Homes
May 16	Program Management Contractor RFPs for Existing Homes and Existing Buildings; trends in commercial sector programs; evaluations of SEM offerings; scaling up for program innovations in New Buildings
June 6	Residential trends, residential HVAC market study, Home Performance with ENERGY STAR process evaluation; MPower Oregon pilot; NEEA gas market transformation
July 25	Mid-year update; 2013 preliminary budget concepts by sector; heat pump incentive qualification; 2011 fast feedback survey results; gas weatherization cost-effectiveness exceptions
October 24	2012 savings forecast; draft 2013 budgets; gas cost-effectiveness exceptions revisited; planned incentive changes
November 28	Final draft 2013-14 budgets, gas cost-effectiveness exceptions revisited; planned incentive changes; residential awareness study; New Buildings impact and process evaluations

Renewable Energy Advisory Council

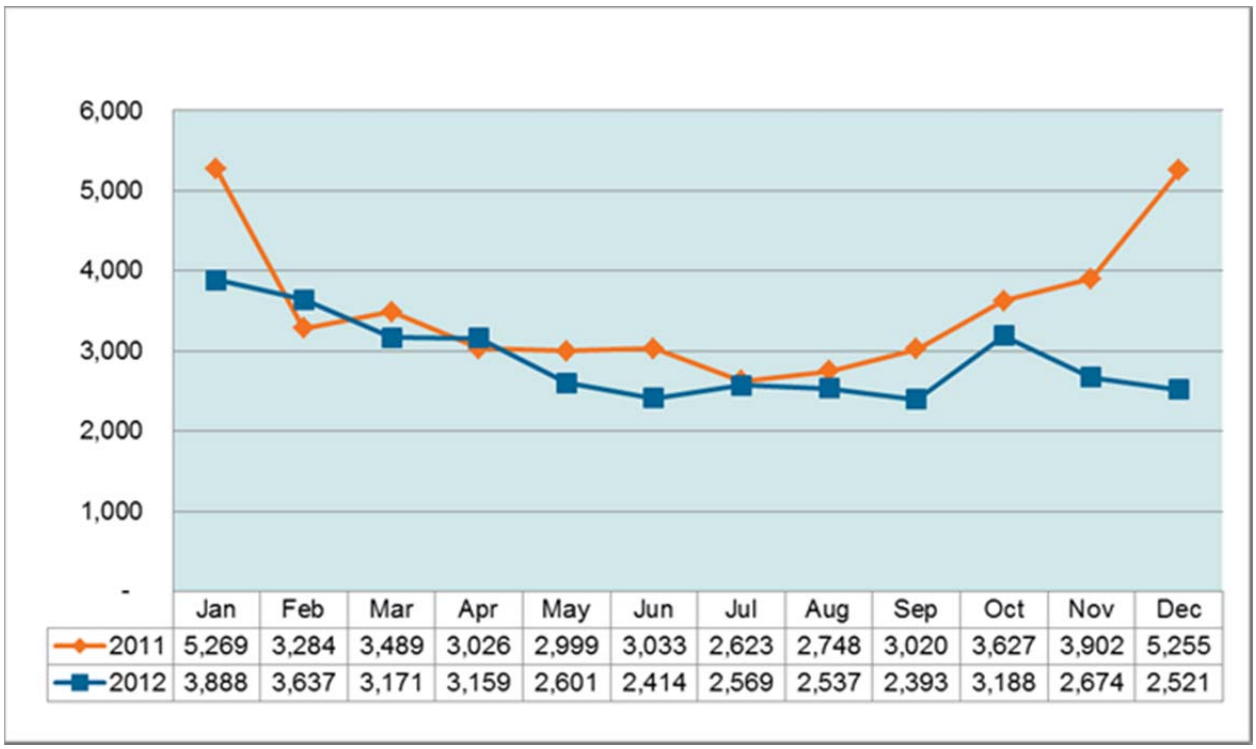
Jason Busch, Oregon Wave Energy Trust
Megan Decker, Renewable NW Project
Troy Gagliano, EnXco
Robert Grott, Northwest Environmental Business Council
Thor Hinckley, Portland General Electric
Juliet Johnson, Oregon Public Utility Commission
Suzanne Leta Liou, RES Americas
Glenn Montgomery, Oregon Solar Energy Industries Association
Vijay Satyal, Oregon Department of Energy
Frank Vignola, Solar Monitoring, University of Oregon
Dick Wanderscheid, Bonneville Environmental Foundation
Tashiana Wangler, Pacific Power

2012 Meeting Dates	Major Discussion Topics
February 15	Oregon Institute of Technology geothermal project; competitive process for custom projects in Pacific Power territory; fish passage issues for small hydro projects
April 18	Competitive process for custom projects in Pacific Power territory; Revolution Energy Systems biogas project completion; Farm Power Misty Meadow project; Monroe Drop hydropower project; solar budget update
June 6	Lessons learned from the competitive process; solar market update; changes to small wind program
July 25	Black Cap 2 MW solar project
September 12	2013-2014 budget themes; wave power update; fall competitive process; update on solar water heating cost effectiveness
October 24	2013-2014 budget; proposal for increasing early stage project assistance; concept for solar RFP in PGE territory
November 28	Final 2013-2014 budget presentation; early stage project assistance; preview of 2013 legislation

2012 Customer Service Data

Call volumes

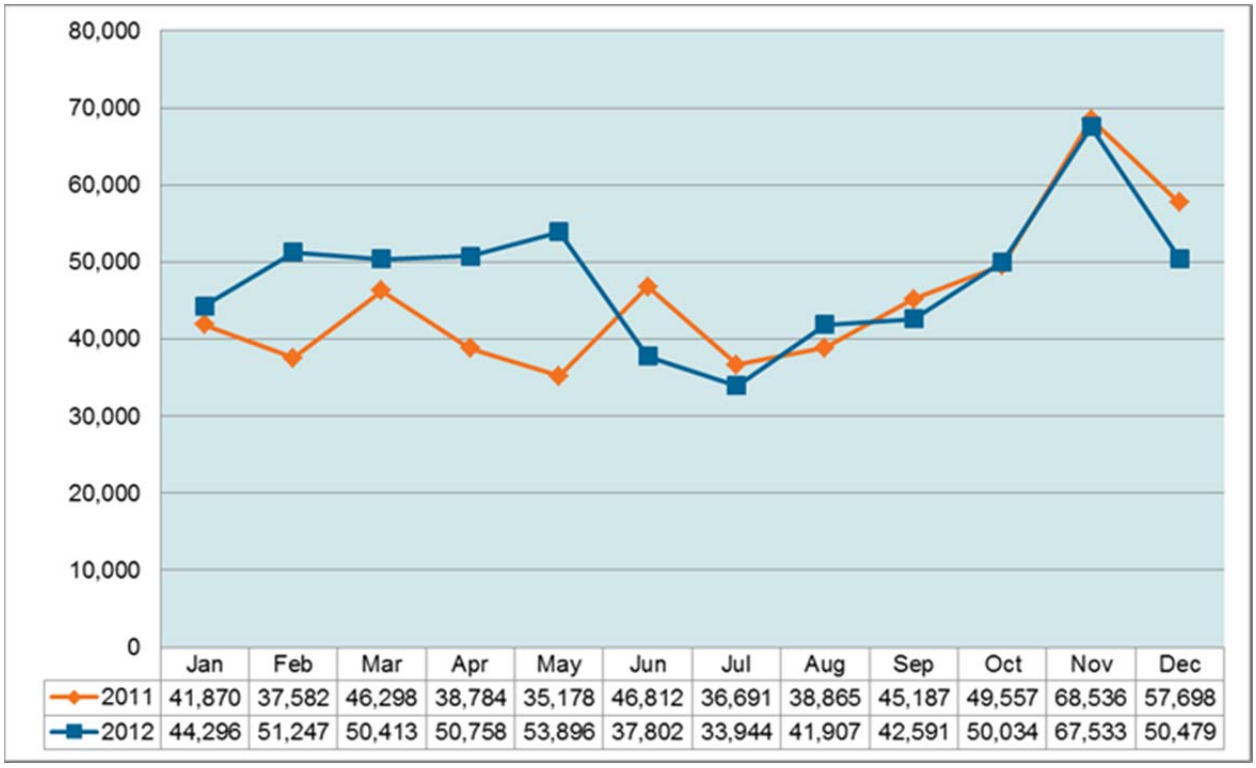
Energy Trust's call center received 34,752 calls in 2012, a 9 percent decrease from 42,275 calls in 2011. Call volumes have been trending down since 2009 as Energy Trust has released more online forms and other web-based customer services.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	5,269	3,284	3,489	3,026	2,999	3,033	2,623	2,748	3,020	3,627	3,902	5,255
2012	3,888	3,637	3,171	3,159	2,601	2,414	2,569	2,537	2,393	3,188	2,674	2,521

Website visits

Energy Trust's website, www.energytrust.org, received 574,900 visits in 2012, a 6 percent increase over the 543,058 website visits in 2011. Web traffic has increased nearly 40 percent in the past four years, reflecting Energy Trust's increasing use of online applications and forms, as well as online advertising and social media. During 2012, call center staff responded to 1,704 inquiries via info@energytrust.org, most from residential customers, an increase of 16 percent over 2011.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	41,870	37,582	46,298	38,784	35,178	46,812	36,691	38,865	45,187	49,557	68,536	57,698
2012	44,296	51,247	50,413	50,758	53,896	37,802	33,944	41,907	42,591	50,034	67,533	50,479

Customer satisfaction

Information updated December 3, 2013, to reflect New Buildings satisfaction rates determined through a program process evaluation.

Energy Trust calculated customer satisfaction from telephone surveys of a sample of participants administered soon after they received incentive checks. In 2012 the average rate of overall satisfaction with Energy Trust was 95 percent, and the rate of satisfaction with Energy Trust program representatives was 96 percent.

Table 1. 2012 Overall Satisfaction

	2012 Satisfaction
Existing Buildings and Existing Multifamily	92%
Home Products	93%
Existing Homes	91%
New Buildings and New Multifamily	100%
Production Efficiency	97%
Solar	94%
Unweighted Average	**95%**

Table 2. 2012 Satisfaction with Program Representative

	2012 Satisfaction with Program Representative
Existing Buildings and Existing Multifamily	93%
New Buildings and New Multifamily	100%
Production Efficiency	97%
Commercial Solar	94%
Unweighted Average	**96%**

Note: Energy Trust's regular customer feedback survey does not ask residential participants about satisfaction with program representatives. Residential participants interact with Energy Trust representatives to a varying degree—some have in-home Home Energy Reviews, some call the contact center and others may not interact with a program representative. In general, commercial and industrial participants have more interaction with Energy Trust representatives.

Complaint report

Energy Trust recorded nine escalated customer complaints in 2012, 14 fewer than in 2011. This is a very small number, considering the tens of thousands of customers served. Of the nine complaints, six were from residential customers and three were from commercial participants. One of these complaints came to Energy Trust through the Oregon Public Utility Commission. The dramatic decrease in escalated complaints in 2012 is attributed to Energy Trust's continuing work to improve customer experience. Customer service representatives have developed greater skill in responding to customer complaints and resolving issues without the need for escalation.

2012 Utility Activities Supported by SB 838-authorized Funding

Per agreement with the OPUC, Pacific Power and Portland General Electric report their SB 838 program support activities in Energy Trust's quarterly and annual reports. Content and format were developed by the utilities, following a sector outline suggested by Energy Trust, and appear here as received.

1. Pacific Power SB 838 Annual 2012 Energy Efficiency Activities and Results

Pacific Power / Energy Trust Year End Report - 2012

Pacific Power utilized several approaches to support and deliver energy efficiency communications, advertising and outreach to residential and small- and mid-size commercial customers.[11]

Voices **residential newsletter insert**

- **Q1**
  - Start the year right – save energy
  - Smart power strips
  - Hold on to your heat and stay warm / Energy Trust
  - Choosing a better bulb / Energy Trust
  - LED lighting
- **Q2**
  - Save with Earth Day actions / Energy Trust
  - Free Energy Saver Kit / Energy Trust
- **Q3**
  - Home is where the savings are / Energy Trust
  - Recycle your old fridge / Energy Trust
  - No money down energy upgrades / CEWO
  - One kilowatt-hour, so many possibilities
  - Weatherize your home / Energy Trust
- **Q4**
  - Be ***watt***smart / Green Gifts
  - Enjoy the season in a new light / CFLs / Energy Trust

Energy Connections **commercial e-newsletter**

- **Q1**
  - Your Energy Plan for 2012
  - Save Now: Eight Low-Cost Ways to Reduce Energy Use
  - Fact or Fable? When a Device is Turned Off, It is Off
  - Be ***watt***smart with Building Maintenance
  - Energy Management Systems: Putting You in Control
  - Common Energy Myths Exposed
  - Do You Have Energy Hogs in the Office?
  - Programmable Thermostats: An Affordable Way to Save Energy
  - Real Savings: Local Businesses Improve Lighting, Cut Costs
    - New lighting lifts fitness center / Energy Trust
    - Irrigation supplier pumps up savings, productivity / Energy Trust
  - Fact or Fable? Daylight Saving Time Saves Energy

[11] Some activities are funded outside of SB 838 funds.

- **Q2**
  - Can Saving Energy Increase Worker Productivity?
  - Your Electric Bill: The Difference Between Demand and Usage
  - Ten Low-Cost Strategies to Reduce Your Energy Bill
  - Does Your Big Screen TV Equal Big Power Consumption?
  - Spring Air Conditioning Maintenance Tips for Businesses
  - LED Lighting: A Growing Bright Spot for Energy Savings / Energy Trust
  - Fact or Fable? Energy-Efficient Refrigerators Use Less Power Than a 100-Watt Bulb
  - Strategies to Reduce Demand Charges
  - Unloading Your Plug Load
  - Get Your House in Shape for Summer
  - TV Set-Top Boxes Get Poor Ratings in Energy Efficiency

- **Q3**
  - Preventive Maintenance Checklist for Air Conditioning Systems
  - Benefits of Motor Soft-Start Devices
  - Cut Energy Waste in the Office
  - How Do They Do That? Light-Emitting Diodes (LEDs)
  - While You're Away…
  - Your Electric Bill: The Difference Between Demand and Usage
  - Energy Efficiency: Your Competitive Edge
  - Lighting Controls: Technology Takes Flight at Local Airport
- **Q4**
  - Building Controls: Stay Tuned for Energy Savings
  - Ten Ways to Improve Heating System Performance
  - Employee Personal Appliances Erode Energy Efficiency Efforts
  - Compare the Energy Costs of Holiday Lighting
  - Annual Energy Reviews: Seven Things to Look For
  - Making the Business Case For Efficiency
  - Shrink Your Big Screen TV's Power Usage

Energy Insights **large C&I / communities newsletter**

- **Q1**
  - J&J Snack Foods enjoys savings / Energy Trust
- **Q2**
  - Helping customers save energy at home
  - Helping shape energy policy
  - Local mill cuts energy waste / Energy Trust
- **Q3**
  - Plan focuses on changing energy picture
  - Pacific Power executive visits historic Oregon company / Energy Trust
  - Energy Efficiency goes high tech / Energy Trust
- **Q4**
  - Dairy milks savings through energy efficiency / Energy Trust
  - Get your ***watt***smart open sign / Energy Trust

Bill inserts

- **Q1**
  - Resolve to save with energy-efficient improvements / Energy Trust
  - Stay comfortable and save energy with a new heat pump / Energy Trust
  - Make it your home. Get cash incentives for weatherization / Energy Trust
- **Q2**

- Free Energy Saver Kit. Delivered to your front door. / Energy Trust
- Be ***watt***smart workshops
- Summertime and the saving is easy
  - Free Energy Saver Kit / Energy Trust
  - Other cool resources / Energy Trust
  - Home Energy Review / Energy Trust
  - Get cash for your old fridge / Energy Trust
  - Energy-saving tips for summer efficiency / Energy Trust

- **Q3**
  - Turn Mr. Sunshine into Mr. Hot Water (solar thermal) / Energy Trust
  - Refrigerator Recycle / Energy Trust
- **Q4**
  - wattsup insert
  - Energy Trust Energy Saver Kit

Direct mail

- **Q1**
- **Q2**
  - Clean Energy Works Oregon – Southern Oregon
  - Clean Energy Works Oregon – Central Oregon
  - Be ***watt***smart workshops
- **Q3**
  - Advanced Controls Heat Pump / Energy Trust
  - Solar Water Heater / Energy Trust
  - Clean Energy Works Oregon – Hood River
  - Clean Energy Works Oregon – Lane County
  - Clean Energy Works Oregon – Marion/Polk Counties
  - Clean Energy Works Oregon – Benton County
- **Q4**
  - Clean Energy Works Oregon – Klamath and Lake Counties
  - Energy Trust Ductless Heat Pump postcard

Direct email

- **Q1**
- **Q2**
  - Be ***watt***smart workshops
- **Q3**
- **Q4**

Mass media

- **TV - Bend, Medford, Eugene and Albany/Corvallis DMAs**
  - **Q1**
    - "Bike shop"
    - "Cookies"
    - "Motel"
    - "Little Hero"
    - "Porch Light"
    - "Small Changes"
    - "Sweet Savings"
    - "Remodel your energy bill"

- **Q2**
  - "Little Hero"
  - "Porch Light"
  - "Small Changes"
  - "Sweet Savings"
  - "Contractor" / Energy Trust
  - "Cookies" / Energy Trust
  - "Motel" / Energy Trust
  - "Home sweet home" / Energy Trust
  - "Porch Light" / Energy Trust
  - "Remodel your energy bill" / Energy Trust
  - "Washing machine" / Energy Trust
  - "Small changes" / Energy Trust
  - "Little hero" / Energy Trust
- **Q3**
  - "Contractor" / Energy Trust
  - "Cookies"
  - "Motel"
  - "Little hero"
  - "Porch Light"
  - "Remodel your energy bill" / Energy Trust
  - "Small changes"
- **Q4**
  - "Baker/Cake"
  - "Contractor-ETO"
  - "Cookies"
  - "Motel"
  - "Little Hero"
  - "Porch Light"
  - "Small Changes"

- **Radio – Bend, Eugene and Medford DMAs**
  - **Q1**
    - "Marty Home Improvement Answers"
    - "Phil Seal and Secure Answers"
    - "Lori Lightbulb Answers"
    - "Jess Conserve Energy Answers"
    - "Bob Energy Efficiency Answers"
    - "Home Energy Review" / Energy Trust
    - "Refrigerator recycling" / Energy Trust
    - "Upgrade incentives" / Energy Trust
  - **Q2**
    - "Bob Energy Efficiency Answers"
    - "Marty Home Improvement Answers"
    - "Home Energy Review" / Energy Trust
    - "Refrigerator recycling" / Energy Trust
    - "Upgrade incentives" / Energy Trust
  - **Q3**
    - "ETO Upgrade Song" / Energy Trust
  - **Q4**
    - "ETO Home Review Song (***watt***smart)"
    - "Bob Answers – energy efficiency"
    - "Jess Answers – conserve energy"

- **Print**
  - **Q1**
    - "Outlets"
    - "Monmouth-Independence Chamber of Commerce Chamber" directory ad
    - "Deschutes Library Ad" / Energy Trust
    - "Fishmarket" ad
  - **Q2**
    - "Deschutes Library Ad" / Energy Trust
    - "Stayton-Sublimity Chamber of Commerce, guide ad" / Energy Trust
    - "Medford Chamber of Commerce, business directory ad" / Energy Trust
    - "Upper Rogue Independent Magazine"
    - "American Legion Baseball" program ad
  - **Q3**
    - "Scandinavian Festival" program ad
    - "Albany Chamber" directory ad
    - "Creswell Chronicle" Fourth of July directory ad
    - "Oregon Jamboree" program ad
    - "Bohemia Mining Days" program ad
    - "Lincoln City Chamber" ad
    - "Lithia Motors" ad
  - **Q4**
    - "Lithia Motors" ad
    - "Holiday Season" Cottage Grove Sentinel
    - "New Year's" Cottage Grove Sentinel
    - "Holiday Season" Douglas County News

Outdoor

- **Q1**
  - "Push down to save"
- **Q2**
  - "Push down to save"
- **Q3**
- **Q4**

Websites / Social Media (continuous energy efficiency and Energy Trust content)

- pacificpower.net/wattsmart
- bewattsmart.com
- Pacific Power wattsmart Facebook page
- Twitter

Call Center

- **Q2**
  - Be ***watt***smart workshops – inbound

Chambers of Commerce, Business and Community outreach: Q1 – Q4

Pacific Power has hosted multiple energy efficiency focused meetings with business and community leaders across the state utilizing existing relationships with local Chambers of Commerce and economic development groups. The meetings follow on prior Power of Main Street energy efficiency events held throughout 2011. These presentations focused on small- to mid-size commercial customers, particularly those in leased spaces, and how they can improve energy efficiency. Energy efficiency presentations were delivered in Power of Main Street events were held in Astoria, Coos Bay, Dallas, Hood River, Klamath Falls, Lebanon, Lincoln City, Medford, Monmouth, Pendleton, Portland, Redmond, Sweet Home and Umatilla, Oregon. The presentations highlighted Pacific Power's

relationship with Energy Trust and available programs and incentives to save energy and money. Pacific Power also offered:

- A one hour on-site walk through with Pacific Power to document information about the customer's building and how they use energy. We reviewed lighting, office equipment, HVAC and foodservice equipment. Pacific Power also provided practical no cost/low cost ideas for saving energy and a review of which improvements were eligible for Energy Trust cash incentives. (Utilizing Energy Trust's "Do it yourself" energy audit)
- Additional support for on-site assistance from Energy Trust of Oregon and local contractors.
- Regular checkups with Pacific Power on recommended energy saving improvements.

Be *watt*smart Workshops – Q2

Pacific Power produced and delivered a very successful second round of Be ***watt***smart Workshops. The workshops were targeted to homeowners to educate them on how to manage energy use and improve energy efficiency. Locations included Medford, Grants Pass, Roseburg, Coos Bay, Corvallis, Portland, Seaside, Hood River, Bend, Redmond, Klamath Falls, Lakeview, Pendleton and Enterprise, Oregon. Sessions were presented by Pacific Power.

Mass Media[12]

	2012 – Impressions (Q1 – Q4)
TV	60,743,800
Radio	4,343,000
Print	83,000
Digital	4,865,207
TOTAL	70,035,007

Outreach

Locations	Chambers of Commerce, business / community groups (2012)	Be ***watt***smart / other residential (2012)	TOTAL (Q1 – Q4)
Astoria	100	-	100
Bend	-	99**	99
Coos Bay	40	120*	160
Corvallis	150	120*	270
Dallas	45	-	45
Enterprise	-	17	17
Grants Pass	-	75* **	75
Hood River	20	30	50
Klamath Falls	125	80* **	205
Lakeview	-	29	29
Lebanon	65	1,000	1,065
Lincoln City	60	-	60
Medford	200	150* **	350
Monmouth	25	-	25
Pendleton	60	46	106
Portland	60	224* **	284
Redmond	25	498* **	523
Roseburg	-	88*	88
Salem	575	-	575
Seaside	-	34	34

[12] SB 838 funded mass media only

Sweet Home	20	-	20
Umatilla	5	-	5
TOTAL	1,575	2,610	4,185

*Sold out events
** CEWO presentation provided

"Warm Leads" / Customer Response

	2012 (Q1 – Q4)
"Warm Leads" provided to ETO	128
Consultations	243
Energy Saver Kits	308*

*Request for link

Other Energy Efficiency Coordination / Support

- Internal Pacific Power support for ETO programs
- Weekly / Monthly ETO coordination meetings
- ETO Conservation Advisory Council
- ETO / Utility Roundtable
- EEAST implementation
- On-Bill Financing support
- CEWO implementation, contracting, support
- "Cool Schools" coordination
- ETO / Utility Data Transfer coordination
- Fuel Switching docket
- EE PPA docket
- Opower pilot
- 1aMW / Self Direct reconciliation
- Lloyd EcoDistrict Energy Conservation Charge filing / funding agreement

2. PGE SB 838 Annual 2012 Energy Efficiency Activities and Results

PORTLAND GENERAL ELECTRIC ENERGY EFFICIENCY ACTIVITIES 2012

Commercial and Industrial

PGE used four different approaches to promote Energy Trust programs to business customers:

1. Mass Education via Newsletters

PGE utilizes its business newsletters (both print and email) to promote Energy Trust programs to business customers. PGE's business newsletter, Energize, is sent quarterly to 76,000 customers in their bills. PGE's business e-newsletter, Business Connection, is sent bi-monthly to 15,000 business customers.

Energize: The winter edition of Energize featured "Five energy-smart moves" and Ask the Expert: "Now's the time to upgrade fluorescent lighting." The spring edition of Energize featured "Win a $3000 energy upgrade! Save energy and control costs with Save More, Matter More™," "Better light, lower costs, Real-life savings: ATALIER DREISEITL+PLACE" and Ask the Expert: "How smart grid will help your business." The summer edition of Energize featured the Save More, Matter More™ campaign and the

2012 sweepstake winners. The fall edition of Energize featured a story about how smart strips create savings for businesses and another article on how "LEDs light the way to savings".

Business Connection: The February Business Connection featured: "Five energy-smart moves," "Time to upgrade fluorescent lighting" and "Kick-Start bonus incentives." April Business Connection featured "Win a $3,000 energy-efficiency upgrade! Join our Save More, Matter More™ campaign to save energy, control costs," "Video guide: Which lights do you have? Old T12s or energy-saving T8s – how to tell the difference" and "Five ways we can help you go green. Simple, sustainable savings: How to help the earth and your bottom line." The August Business Connection also featured an article called "Save More, Matter More™ winners: Hundreds of businesses join energy-saving campaign". December Business Connection featured an article called "Smart strips=smart savings" as well as a story called "LEDs save 75% for retailer".

2. Mass Market Campaign: April – May 2012

PGE launched its fifth annual Save More, Matter More (SMMM) campaign in the spring in an effort to feed the project pipeline earlier in the year. The campaign ran from April 1 through May 31. PGE continued utilizing the support of our contact center and outreach through Green Mountain Energy business reps. The campaign included targeted direct mail and a "bangtail" insertion in the bill, both of which encouraged customers to return a form to enroll in the campaign or get a free energy consultation.

189 customers entered the sweepstakes for a $3,000 energy-efficiency retrofit and 487 customers requested a free energy efficiency consultation. There were 464 SMMM Webpage hits. PGE sent 71 qualified leads to Energy Trust.

3. **Direct Regional Mail**

January 2012

PGE launched the first Direct Mail for the Winter EE Campaign in January to 4,997 customers. The focus and tactics were the same as the successful Fall EE Campaign which produced 10% more qualified leads by offering on-site consultations versus phone or email consultations. A targeted direct mail letter was sent to previously untapped geographic areas within PGE's service territory encouraging customers to request on-site consultations focusing on zip codes that were not included in the Fall EE Campaign. The major channel for the Winter Campaign was direct mail. 119 customers requested a free energy efficiency consultation and PGE sent 28 qualified leads to Energy Trust

February 2012

PGE also launched an email blast in February to 1,524 customers who had an email address on file that previously received a consultation but did not go on to the Energy Trust as a lead. The email was sent to customers who have expressed interest in EE in the past that we wanted to make aware of new incentives, including the Kick-Start Bonus. The email informed customers of new incentives and was designed to drive customers to request an energy efficiency consultation and had a 23.5% open rate.

July – August 2012

PGE launched a T12 to T8 conversion letter that was sent to 11,000 general business customers in two rounds, one in July and one in August. The promotion was a final push on converting T12s to T8s since the T12s would no longer be manufactured after July 2012. Small manufacturing customers were chosen as the target chosen because they tend to take longer to make non-production decisions such as switching out lights and may not have converted yet. The letter highlighted the costs of not switching

and encouraged in-person consultations while the PGE team was in the customer's neighborhood. The second batch of letters went out to general business customers in August and was targeted at specific zip codes in our territory. There was not as much traffic as hoped from the first mailing in July. The slow response may be a result of doing another T12 lighting promotion so close to the large Save More, Matter More campaign in April/May which also focused on T12s. However, the timing of the direct mail letters was purposeful as it was a final attempt at finding the customers that haven't converted yet given that the manufacturing of T12s ended in July. 258 customers requested a free energy efficiency consultation and PGE sent 78 qualified leads to Energy Trust.

September - October 2012
A light emitting diode (LED) direct mail was sent out to approximately 8,000 general business customers in September targeted at Restaurant/Lodging/Entertainment and Grocery/Retail. The mailing included a letter that describes the benefits of LEDs and explains how PGE can help customers choose the right LEDs in order to qualify for Energy Trust incentives. There was also a brochure included that included a customer story about a successful LED project installation with a tear off business reply card encouraging customers to return a form to request a free energy consultation. The promotion began September 18 and ended October 31, 2012. 249 customers requested a free energy efficiency consultation and PGE sent 55 qualified leads to Energy Trust.

November - December 2012
An "In Your Neighborhood" direct mail was sent out in the beginning of November to approximately 8,000 business customers in targeted zip codes. The letter described how PGE's energy experts can meet the customer at their business and review their systems like lighting, HVAC and other equipment as well as help connect the customer with contractors and Energy Trust incentives. The focus was on offering on-site consultations while the PGE energy experts are in the "neighborhood" of the business versus phone or email consultations. This type of promotion has proven very successful in the past. The target was chosen by specific zip codes so that the energy expert team could maximize the on-site consultations. The promotion began November 1 and ended December 15, 2012. 158 customers requested a free energy efficiency consultation and PGE sent 39 qualified leads to Energy Trust.

Through mass market and direct regional mail marketing efforts in 2012, 1,271 customers requested a free energy efficiency consultation and PGE sent 271 qualified leads to Energy Trust, for a 21.3% conversion rate.

4. Personal & Face-to-Face Communication
PGE has had a dedicated outreach position in place since June 2008. In June 2010 PGE received OPUC support to hire two additional Outreach Specialists.
The Outreach Specialists develop and facilitate customer participation in Energy Trust programs. The results are qualified leads to the Energy Trust. The team utilizes a variety of tactics to engage customers in Energy Trust programs. Qualified leads were generated from but not limited to the following activities:

- Phone and on-site consultations
- Targeted outbound customer calls
- Response to canvassing (summer-hire and outreach rep driven)
- Response to business marketing (i.e. Save More, Matter More, direct mail, etc.)
- Response to customer emails (energy.efficiency@pgn.com)

- Customer calls to PGE Tualatin Call Center
- Business partnerships (i.e. City of Portland BEST program, Clackamas County Office of Sustainable Development, etc.)
- Chamber, Business and Trade Association presentations
- Customer follow-up after PGE Training and Education classes
- Leveraging internal networks (i.e. Key Customer Managers, Governmental Affairs representatives, Service and Design Consultants, Green Mountain Energy, etc.)

In 2012, the Outreach Specialists achieved the following results:

- 6,250 face-to-face, email, phone presentations/consultations, or outreach presentations to business customers for increased awareness of Energy Trust programs
- 550 qualified project leads sent to Energy Trust programs
- 40 outreach presentations and networking events for 31 different groups or events. These activities elevate Energy Trust program awareness and engage customers in identifying potential energy saving opportunities.
    - Art Institute of Portland (NW Davis)
    - Beaverton Chamber
    - City of Hillsboro Sustainability
    - Energy Trust / PECI HVAC controls codes training
    - Estacada Chamber
    - ETO NC Symposium
    - Good Morning Damascus
    - Green Mountain Energy
    - Hillsboro Chamber
    - HVAC/Building Tune-Up (PGE Training & Education)
    - Institute of Real Estate Management
    - Keizer Sustainability Summit
    - Kenton Business Association
    - Marion County Farm Bureau
    - Metro Multifamily Housing Association – Luncheon
    - NAO Diversity Event (PGE Sponsor)
    - PGE & North Clackamas Chamber Lighting Seminar
    - PGE Training & Education – EE for Small & Medium-sized Business [twice]
    - PGE Training & Education – Energy & Water Trends
    - PGE Training & Education – Sustainable Business Bootcamp
    - Portland Lights
    - RTP
    - Salem Chamber Greeters [three times] (once hosted at Salem Line office)
    - Sherwood Chamber [twice]
    - Silverton Forum
    - Tigard Chamber [three time, including Shining Stars Awards and Breakfast]
    - Tualatin Chamber of Commerce [three times]
    - Tualatin Commercial Citizen Involvement Organization [twice]
    - Washington County Recycle at Work Spanish-Speaking Sustainability Workshop
    - Wilsonville Chamber
    - Woodburn Greeters

Residential

PGE used Schedule 110 funds to enhance basic information provided through residential mass-market channels with the following promotions:

- PGE's residential customer newsletter, Update, is sent monthly to 610,000 customers in their PGE bills. January's edition mentioned an overview on Energy Trust programs – also included as a bill insert.
- PGE's residential e-newsletter, Home Connection, is sent monthly to about 400,000-412,000 customers. In February, Home Connection provided an overview on Energy Trust incentives; 3,863 customers clicked through for more information.
- In February, Update featured Energy Saver Kits.
- May's Update edition featured the Marathon water heater – also included as a bill insert. Appliance rebates were highlighted in the June edition of Update.
- In May, Home Connection mentioned solar, water heating, weatherization and appliance incentives.
- April's Home Connection offered information on the Home Energy Review program.
- High performance showerheads were mentioned in the June edition of Home Connection.
- In the July edition of Update, Energy Trust window incentives were mentioned. Also in July, 86,000 customers were emailed an offer for triple pane windows for the price of double pane.
- July's Update also mentioned PGE's efforts to provide information on Energy Trust of Oregon incentives to Spanish-speaking customers.
- In August, Home Connection featured the Energy Trust's Home Energy Review program.
- PGE sent emails to 200,075 residential customers to offer Energy Saver Kits provided by the Energy Trust in November. 16,858 kits were delivered to PGE residential customers during Q4.
- A direct mail in December was sent to 106,249 residential customers offering special pricing for AirGenerate heat pump water heaters installed through PGE's plumber network. A total of 111 customers installed had heat pump water heaters in Q4.

2012 Measurable Results

- 141,531 Energy Saver Kits to PGE customers in 2012.
- Starting in spring of 2012, PGE supported the Energy Trust and local energy assistance agencies with free energy saving kits distributed during energy assistance appointments. 5,400 Energy Saver Kits distributed through local energy assistance agencies
- 9,250 free showerheads and 30,250 compact florescent bulbs, including candelabra specialty bulbs, distributed to customers through PGE Community Offices
- 141,531 Energy Saver Kits to PGE customers in 2012
- 13,451 PGE customers participated in the Energy Trust's Refrigerator Recycling program
- 573 customers received the Energy Trust electric resistance water heater incentive
- 111 customers received the Energy Trust heat pump water heater incentive
- 573 customers received the Energy Trust $75 water heater incentive

- 174 free showerheads have been installed by PGE's plumber network when on residential jobs in PGE's service territory through the Energy Trust Direct Install program
- 102 Energy Trust window bonus incentives
- 381 Savings Within Reach homes have been weatherized
- Transfers from PGE's call center to Energy Trust 2012: Appliance Program (PECI): 138, Warm Program (CSG): 360, OPower: 512

*Energy Trust provided information on participation among PGE customers. Weatherization measures are among electrically heated homes.

Heat Pump Activity

A PGE/Daikin heat pump promotion for a free indoor unit ran from May 1-June 30. The offer combined distributor, PGE and Energy Trust incentives for ductless heat pumps. The campaign included 46,977 direct mail and 15,863 email with a reminder email. The offer drove 257 leads to PGE-Approved contractors.

A PGE/Trane heat pump promotion for a MasterCard gift card ran from August 1-September 30. The offer combined distributor, PGE and Energy Trust incentives as well as Oregon tax credits. The campaign included 12,576 direct mail and 4,504 email. The offer drove approximately 55 leads to PGE-approved contractors.

A PGE/Airefco heat pump promotion for a free indoor unit ran from October 3-November 30. The offer combined distributor, PGE and Energy Trust incentives as well as Oregon tax credits and contractor financing. The campaign included 34,495 direct mail, 16,252 email, and 8,000 both direct mail and email. The offer drove approximately 88 leads to PGE-approved contractors and resulted in 77 installed heat pumps.

With a goal of helping contractors better align with Energy Trust's new ductless heat pump program guidelines, PGE funded and facilitated two trainings – an all-day class with testing and a one-hour webinar – to teach the contractors how to condition larger homes using a maximum of two indoor ductless heat pump fan coil units (heads).

PGE reinstated quality assurance inspections among PGE-Approved contractors in 2012. The inspection team has continued to refine their skills through peer experience and information exchange, partnering, monitoring, mentoring and supervised ride-alongs with the Heat Pump Technical Field Specialist, John Karasaki. Deficiencies inspectors identify in the field result in corrective actions or failed inspections. Corrective actions are resolved by the quality assurance specialists, and failed inspections are passed on to the Approved Contractors, requiring the contractor to fix the issue. The Heat Pump Technical Field Specialist utilizes these errors to educate the owners and staff to reduce the likelihood of the errors occurring again.

As reported by PGE-Approved Contractors, there were 1,650 Heat Pump installations in 2012. PGE Quality Assurance Specialists performed 290 inspections of Heat Pump installations, 49 of which required corrective action taken and 1 failed inspection.

Energy Trust of Oregon
2012 Annual Report NW Natural Washington

April 25, 2013[13]

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[13] April 25, 2013, is the date this report is due from NW Natural to the Washington Utilities and Transportation Commission.

I INTRODUCTION, BACKGROUND, OVERSIGHT AND GOALS

A. Introduction

This report covers 2012, the third full year that Energy Trust of Oregon provided services and incentives to residential and commercial customers of NW Natural in Washington.[14]

It addresses progress toward annual goals, information on revenues and expenditures, number of completed measures and incentives paid during the year and highlights of program activity.

B. Background

At the request of NW Natural and following approval granted by the Washington Utilities and Transportation Commission, WUTC, Energy Trust began administering NW Natural's demand-side management programs in southwest Washington on October 1, 2009. The first year was viewed as a pilot. Satisfied with results from the pilot year, in 2011 the WUTC approved Energy Trust's continued administration of conservation programs for NW Natural in Washington.

C. Oversight

The Energy Efficiency Advisory Group, EEAG, was created, at the direction of the WUTC, to provide advice and oversight for NW Natural/Energy Trust energy-efficiency offerings in Washington. The advisory group is comprised of representatives from NW Natural, Energy Trust, WUTC, Washington Public Counsel, Northwest Industrial Gas Users and the Northwest Energy Coalition.

D. Goals

NW Natural, in collaboration with the EEAG, established performance metrics for the 2012 program year. This report presents Energy Trust's performance against those goals (see page 4).

[14] Energy Trust also collaborates in Washington with Clark Public Utilities on tune-ups of rooftop HVAC units in commercial buildings. Savings accrue to Clark Public Utilities, which provides revenue to cover Energy Trust costs. See table p. 60.

II. ANNUAL REPORT HIGHLIGHTS

A. Summary

- **Gas efficiency measures installed in 2012** by NW Natural's Washington customers saved 213,486 annual therms of natural gas—including 107,764 annual therms in Existing Buildings, 66,810 annual therms in Existing Homes and 38,912 annual therms in New Homes. In total, this was an increase of 4.5 percent over 2011 savings.
- **Total 2012 savings met the minimum savings goal**, as detailed in NW Natural's 2012 Energy Efficiency Plan. Total program spending, including incentives, delivery and administration, was well within budget.
- **An energy efficiency services group,** comprised of Clark County stakeholders, continued meeting in 2012 to identify collaboration opportunities, including joint incentive offerings and coordination on outreach events and marketing. The group includes representatives from Energy Trust, Clark Public Utilities, Planet Clark, Clark County Department of Environmental Services and Clark County Community Development's Weatherization Program.
- **As part of Energy Trust's commitment to competitive process** regarding the use of program management contractors, in 2012 all three of the Washington programs were rebid through a competitive Request for Proposals process. While there were many attractive proposals, including those from two long-time incumbents, all three of the programs were awarded to new bidders. To create administrative and cost efficiencies, both of the residential programs (Existing Home and New Homes) will be delivered by one contractor beginning in 2013.

B. Washington Utilities and Transportation Commission Performance Metrics

The table below compares 2012 annual results to 2012 program goals, as established in NW Natural's Energy Efficiency Plan for Washington (updated December 2011).

2012 Results Compared to Goals

Metrics	Goal	2012 Total	Q1 Results	Q2 Results	Q3 Results	Q4 Results
Therms Saved	212,550 – 250,000	213,486	47,496	36,173	19,675	110,142
Total Program Costs	$1,431,460 – $1,614,980	$1,156,509	$191,747	$266,693	$231,991	$466,078
Average Levelized Cost Per Measure	Less Than $0.65	$0.482	$0.336	$0.594	$0.940	$0.417
Dollars Spent Per Therm Saved	Less Than $6.50	$5.42	$4.04	$7.37	$11.86	$4.23
Total Resource Cost and Utility Costs at Portfolio Level	Greater than 1.0	1.25 / 1.07	Reported Annually	Reported Annually	Reported Annually	Reported Annually

2012 Utility Cost and Resource Cost by Program

Program	Utility Cost	Total Resource Cost
Existing Buildings	1.3	1.0
Existing Homes	1.0	1.2
New Homes	1.0	1.5
Overall	**1.07**	**1.25**

2012 Total Utility Cost and Resource Cost

Program	Utility Cost	Total Resource Cost
NW Natural Washington Portfolio	1.1	1.2
NW Natural Washington Low Income	0.8	0.6
Overall	**1.06**	**1.20**

C. Commercial sector highlights

Existing Buildings

- **Existing Buildings achieved savings of 107,764 annual therms** in 2012, falling short of the conservative goal of 121,678 annual therms, as development timelines on three substantial projects were delayed and shifted to 2013. This has contributed to a strong 2013 project pipeline.
- **A collaborative agreement with Clark Public Utilities** to offer joint rooftop HVAC unit tune-up incentives was signed in 2012. The cost share on incentives and delivery expense allows the program to capture more therms at a significantly lower cost per therm. There is no additional work required to achieve the electric savings.
- **Rooftop unit tune-ups were the biggest driver of savings in 2012**, as 177 units were completed, totaling more than 56,000 therms or 52 percent of total Existing Buildings savings.
- **Pipe insulation was also an important and cost-effective measure in 2012**, as nearly 35,000 therms were saved for less than $16,000 in incentive spending.
- **While K-12 schools helped drive savings in 2011, public school projects slowed in 2012** in anticipation of energy-efficiency project funding awards in late 2012 and early 2013 through the Washington State 2012 Jobs Now Act. The program anticipates savings from multiple school district projects in 2013.
- **Few custom projects completed in 2012,** partially due to the slowdown in school projects**.** Consequently, the program will be restructuring its custom offering in 2013 to allow for increased funding of custom studies and better project collaboration opportunities with Clark Public Utilities.
- **Commercial customers expressed satisfaction with their experience with Energy Trust**. Four of five respondents surveyed were satisfied or very satisfied with their overall program experience.

D. Residential sector highlights

- **Residential programs achieved total savings of 105,723 annual therms** in 2012, of which Existing Homes accounted for savings of 66,810 annual therms, while New Homes saved 38,912

annual therms. These results exceeded the Existing Homes conservative goal of 63,373 annual therms and exceeded the New Homes stretch goal of 34,876 annual therms by 12 percent. In total, the residential sector achieved savings that were 27 percent higher than 2011.

Existing Homes

- **The program heavily promoted gas fireplaces in 2012,** paying incentives on 76 installations, a 75 percent increase over 2011.
- **With 152 units installed, high-efficiency gas furnaces accounted for 16 percent of program savings** in 2012, compared to 18 percent in 2011 and 43 percent in 2010, the pilot year. This is a positive trend, given the planned federal standard change to a minimum of 90 percent annual fuel utilization efficiency (AFUE) on May 1, 2013, and potential loss of the furnace incentive when high efficiency furnaces become the norm.
- **The program paid 52 water heater incentives in 2012**, compared with 29 in 2011. The newly offered 0.67 efficiency factor (EF) water heaters started to show some uptake, in part due to a summertime co-promotion with NW Natural that generated 28 installations. Due to cost-effectiveness concerns, the tankless water heater incentive will not be offered for Existing Homes in 2013.
- **Efficient window installations significantly increased in 2012**, saving more than 3,800 therms compared to 2,000 therms in 2011.
- **The program delivered 992 Energy Saver Kits in 2012**, compared with 1,757 in 2011. This decrease was intended, as the program focused more on promoting core equipment improvements and weatherization measures. The program also launched the Build-Your-Own Energy Saver Kit functionality, which includes an online ordering process that allows customers to tailor the kits to fit their specific needs. This increases the likelihood of installation and the amount of energy savings that can be claimed per savings device.
- **Public outreach events were notably more successful in 2012** compared with 2011, with more than 240 customers signing up for Home Energy Reviews.
- **In 2012, the program began utilizing online media campaigns** through The Oregonian, The Columbian and Comcast as a means for reaching new customers. The ads are relatively inexpensive to purchase and have proven in other programs.
- **Customer satisfaction surveys show 89 percent of Existing Homes participants were satisfied** or very satisfied with their experience with Energy Trust in 2012—up from 86 percent in 2011. The 143 program participants were surveyed by telephone shortly after completing energy-efficiency upgrades and receiving an incentive check.

New Homes

- **A total of 189 ENERGY STAR® new homes** received incentives in 2012.
- **Market share for the year was approximately 17 percent,** a notable drop from just over 31 percent in 2011. This is likely due to increased ENERGY STAR documentation requirements that took effect in 2012, as well as the significant increase in total housing starts from 667 in 2011 to 1,117 in 2012. Due to lengthy construction timelines, it is not known how many of these new 2012 housing starts will be built to ENERGY STAR standards in 2013.
- **In 2012 642 high-efficiency gas clothes washers received incentives** in a joint incentive offer with Clark Public Utilities. This successful collaboration will continue in 2013.

- **Four tankless water heater incentives** were processed in 2012.
- **Clark County Food Bank agreed to deliver Energy Saver Kits through its food pantry** locations. This initiative launched in Q4 and distributed 178 kits.

E. Trade Ally Network

- **Energy Trust's Trade Ally Network serving Washington** customers continued its steady growth in 2012.
- **By year end, 189 trade allies served Washington,** 29 more than had been enrolled at the end of 2011 and 57 more than had been enrolled by the end of 2010. Of the 189 trade allies, 78 were based in Washington—21 more than at the end of 2011.
- **Breakfast meetings exclusively for Washington trade allies** serving Existing Buildings and Existing Homes were held in Vancouver in June and December. These breakfasts have proved to be excellent forums, particularly on the residential side, where attendance and engagement by trade allies continues to increase.
- **Builders receiving ENERGY STAR incentives were required to become Energy Trust trade allies** as of July 1, 2012, to ensure that proper insurance coverage is maintained by builders. This requirement had little impact on participation.

III. ANNUAL RESULTS

A. Activity highlights—sites served

	Q1	Q2	Q3	Q4	Total
Existing Commercial					
School/college retrofits	4	3	--	2	**9**
Other commercial retrofits	2	1	6	43	**52**
Studies	--	--	--	--	**--**
Existing Homes					
Weatherization (insulation, air and duct sealing and windows)	27	43	35	74	**179**
Gas hearths	16	19	9	32	**76**
Gas furnaces	41	32	14	63	**150**
Water heaters	8	5	16	22	**51**
Home Energy Reviews	32	11	40	69	**152**
New Homes					
Builder Option Package	30	13	37	109	**189**
Clothes washers	139	151	156	196	**642**

B. Revenues

Source	Actual Revenue YTD	Budgeted Revenue YTD
NW Natural	$ 1,261,914	$ 1,261,914

C. Expenditures

		Actual Expenditures YTD	Budgeted Expenditures YTD	Variance
Commercial Programs	Existing Buildings	$ 401,357	$ 599,880	$ 198,523
	Subtotal	$ 401,357	$ 599,880	$ 198,523
Residential Programs	Existing Homes	$ 453,644	$ 525,614	$ 71,971
	New Homes	$ 262,977	$ 316,275	$ 53,297
	Subtotal	$ 716,621	$ 841,889	$ 125,268
Administration		$ 38,530	$ 49,187	$ 10,657
TOTAL		$ 1,156,509	$ 1,490,957	$ 334,448

The favorable spending variances in Existing Homes and New Homes reflect success in acquiring savings at a lower cost than budgeted. The favorable variance in the Existing Buildings program was driven in part by a shift in completion dates for three larger projects into 2013. As a result, these incentives will be paid in 2013.

Incentives paid

		Actual Incentives YTD
Commercial Programs	Existing Buildings	$ 173,116
	Subtotal	$ 173,116
Residential Programs	Existing Homes	$ 162,801
	New Homes	$ 147,609
	Subtotal	$ 310,410
TOTAL		$ 483,526

Incentives paid account for just under 50 percent of year-to-date program expense, when total program expense is adjusted down by 15 percent to account for costs that a utility-delivered program would recover through rates. This percentage would have been higher if savings had been acquired at a higher cost per therm.

D. Savings

		Therms Saved YTD	Annual Goal (Conservative)	% Achieved YTD	$/Therm	Levelized Cost/Therm
Commercial Programs	Existing Buildings	107,764	121,678	89%	$ 3.85	40.8 ¢
	Subtotal	107,764	121,678	89%	$ 3.85	40.8 ¢
Residential Programs	Existing Homes	66,810	63,373	105%	$ 7.02	55.6 ¢
	New Homes	38,912	29,645	131%	$ 6.99	54.2 ¢
	Subtotal	105,723	93,018	114%	$ 7.01	55.0 ¢
TOTAL		213,486	214,696	99%	$ 5.42	48.2 ¢

While the rooftop unit tune-up savings were achieved cost effectively, particularly due to collaboration with Clark Public Utilities, the shorter measure lives of these improvements led to a higher levelized cost of savings for the Existing Buildings program than experienced in prior years. In total, the levelized cost is well below the $0.65 per therm performance metric set by the WUTC.

E. Clark Public Utilities—rooftop HVAC unit tune-ups**

	Q3	Q4	YTD
Revenue	$ 3,515	$ 120,213	$ 123,728
Expenses	$ 3,704	$ 69,291	$ 72,995
Incentives	$ 1,575	$ 53,865	$ 55,440
Savings (kWh)	11,098	483,993	495,091
Levelized Cost per kWh			2.3¢

** Initiative began in Q3 2012. Electric savings in this table reflect an adjustment upward to account for reduced transmission and distribution line losses resulting from the savings.

APPENDIX 1: 2012 Energy Efficiency Measure Counts and Savings

Table 1: Residential Sector Measures

Category	Measure	Measures Installed	Total Therms Saved
Air Sealing	Air Sealing	28	715
	Blower Door Test	40	0
	Air Sealing Total	***68***	***715***
Duct Sealing and Insulation	Duct Insulation	9	132
	Duct Sealing	65	2,176
	Duct Testing	78	0
	Duct Sealing and Insulation Total	***152***	***2,308***
Energy Saver Kits	***Energy Saver Kits Total***	***992***	***28,485***
Home Energy Reviews	***Home Energy Reviews Total***	***153***	***0***
Shell Insulation	Ceiling Insulation	32	3,160
	Floor Insulation	15	1,108
	Wall Insulation	9	506
	Shell Insulation Total	***56***	***4,774***
Space Heating	Boiler	1	44
	Furnace	152	10,655
	Gas Fireplace	76	7,784
	Space Heating Total	***229***	***18,483***
Water Heating	Tank Water Heater	35	981
	Tankless Water Heater	17	1,105
	Water Heater Thermostat Set-Back	19	138
	Showerheads Left Behind at Home Energy Review	191	2,424
	Showerwands Left Behind at Home Energy Review	49	633
	Faucet Aerators Left Behind at Home Energy Review	300	2,547
	Cold Water Detergent Left Behind at Home Energy Review	39	226
	Water-Saving Device Installed by Plumber	15	178
	Water Heating Total	***665***	***8,233***
Windows	***Windows Total***	***84***	***3,812***
New Homes	ENERGY STAR New Home	189	18,494
	Tankless Water Heater	4	260
	Low-Income Energy Saver Kit	178	1,282
	Showerheads Sold at Retail	1,828	16,354
	High-Efficiency Clothes Washer	642	2,523
	New Homes Total	***2,841***	***38,912***
	Grand Total	***5,240***	***105,723***

Table 2: Commercial Sector Measures

Category	Measure	Measures Installed	Total Therms Saved
Foodservice Equipment	Gas Fryer	5	2,845
	Foodservice Equipment Total	***5***	***2,845***
Shell Insulation	Ceiling Insulation	2	1,049
	Shell Insulation Total	***2***	***1,049***
Space Heating	Boiler	5	10,074
	Boiler Pipe Insulation	12	34,904
	Space Heating Total	***17***	***44,978***
Water Heating	Conventional Condensing Tank	8	1,224
	Tankless Water Heater	1	196
	Water Heating Total	***9***	***1,420***
Rooftop HVAC Tune-up	Rooftop HVAC Unit Tune-up DCV Control	177	56,330
	HVAC Tune-up Total	***177***	***56,330***
Custom	Building Operator Certification	1	1,142
	Custom Total	***1***	***1,142***
	Grand Total	***211***	***107,764***

APPENDIX 2: Customer Satisfaction

In 2012, Energy Trust continued short telephone surveys of NW Natural customers in Washington who had participated in Energy Trust programs. Energy Trust attempted to reach 150 residential customers (participants in the Existing Homes program) and all commercial customers served in NW Natural's Washington service territory to determine satisfaction with their engagement in Energy Trust programs. Results from 143 residential customers and 5 commercial customers indicate a generally high level of customer satisfaction for both groups.

Table 1: NW Natural Washington Residential Customer Satisfaction January 1-December 31, 2012

Residential (n=143)	Dissatisfied	Neutral	Satisfied/Very satisfied
Overall	3%	8%	89%
Incentive application	2%	8%	90%
Turnaround time to receive incentive	11%	11%	78%

We were able to interview only 5 commercial customers (all participated in Q1 or Q2 2012) due to low project volume. Four of five respondents were satisfied or very satisfied with their overall program experience, interaction with program representative, and performance of equipment installed. All respondents were satisfied with the incentive amount and ease of applying for the incentive.

Table 2: NW Natural Washington Commercial Customer Satisfaction January 1-December 31, 2012

Commercial (n=5)	Dissatisfied	Neutral	Satisfied/Very satisfied
Overall	-	1	4
Incentive amount	-	-	5
Ease of applying for incentive	-	-	5
Interaction with program representative	1	-	4
Performance of equipment installed	-	-	4
Turnaround time to receive incentive	-	2	3

2012 Electric Efficiency Results for SB 1149 and SB 838 Funds

2012 SB 1149 Electric Efficiency Results	PGE aMW Saved	Pacific Power aMW Saved	Total aMW Saved	Expenses	mil $/aMW
Commercial	4.74	5.18	9.93	$ 18,024,629	$ 1.82
Industrial	6.88	4.39	11.27	$ 17,252,780	$ 1.53
Residential	3.24	2.30	5.54	$ 11,105,592	$ 2.00
Total Electric Efficiency Programs	14.86	11.87	26.74	$ 46,383,002	$ 1.73

2012 SB 838 Electric Efficiency Results	PGE aMW Saved	Pacifc Power aMW Saved	Total aMW Saved	Expenses	mil $/aMW
Commercial	8.22	3.92	12.15	$ 28,031,081	$ 2.31
Industrial	2.40	1.02	3.43	$ 8,984,331	$ 2.62
Residential	6.74	3.81	10.55	$ 23,079,685	$ 2.19
Total Electric Efficiency Programs	17.36	8.76	26.12	$ 60,095,096	$ 2.30

2012 SB 838 Utility Expenditures	Q1	Q2	Q3	Q4	Total
PGE	$93,801	$179,521	$162,649	$162,274	$598,244
Pacific Power	$69,101	$326,322	$150,295	$483,039	$1,028,757
Total	$162,902	$505,843	$312,944	$645,313	$1,627,001