2014 Annual Report to the Oregon Public Utility Commission & Energy Trust Board of Directors

ENERGY TRUST OF OREGON
APRIL 15, 2015

UPDATED OCTOBER 15, 2015

Energy Trust of Oregon
421 SW Oak St., Suite 300, Portland, OR 97204
1.866.368.7878 503.546.6862 fax
energytrust.org

Energy Trust of Oregon

TABLE OF CONTENTS

FROM THE EXECUTIVE DIRECTOR: 2014 IN REVIEW

I am pleased to submit this report to the Oregon Public Utility Commission and Energy Trust Board of Directors about Energy Trust's strong 2014 accomplishments and detailing how clean energy results benefit Oregon utility customers.

2014 was one of our highest-savings years on record, despite dynamic market conditions, continued low natural gas prices and shifting state and federal tax credits. While continuing to keep administrative costs low, we provided tailored program offerings to achieve savings and generate energy from a mix of renewable resources. We increased targeted outreach efforts to reach and serve a broader set of customers, and focused on bringing new strategies and technologies to market to achieve long-lasting savings.

In every region of the state, more residential, commercial and industrial customers participated in our programs than ever before, from the net-zero Klamath Falls campus at Oregon Tech to the finely tuned school heating systems in Morrow County. Whether customers chose simpler solutions like an Energy Saver Kit, made capital upgrades or invested in customized renewable resources, we were there to help them step forward on the path to cheaper, cleaner energy.

Once again, we created, tested and refined our strategies to anticipate and meet customer needs, expanding our diverse and comprehensive solutions. This broad portfolio of offerings provided the necessary flexibility to achieve savings even during challenging market conditions, enabling us to exceed annual electric efficiency savings goals, nearly meet our natural gas savings goal and exceed the minimum savings required for each utility in 2014. Just a few examples of the many effective services and offerings featured in the report include:

- Residential customers installed nearly 4 million efficient light bulbs, almost one-third of which were LEDs.
- Packaged savings opportunities for small- and medium-sized commercial and industrial customers made decision-making and investments easier and faster.
- New behavioral strategies led to low-cost electric and natural gas savings for commercial and industrial participants in Strategic Energy Management, supporting common-sense approaches and best practices that require no capital investment.
- New tools and approaches served robust residential and rebounding commercial solar markets, including an online solar assessment tool that provides customers with customized costs and generation estimates and generates leads for solar trade allies.
- Energy-saving opportunities acquired from a thriving new commercial construction market even though historically low costs of natural gas made retrofits less appealing for some customers.

These and other investments align with opportunities defined in our newly adopted 2015-2019 Strategic Plan. Having exceeded efficiency goals in our 2010-2014 Strategic Plan, we expect the market to be different in the next five years. After several years of rapid savings growth, we are focused on the best ways to capture the next generation of savings and generation. We know that will result from a combination of strategies, including:

- A focus on acquiring more and deeper energy savings per project
- Faster introduction and testing of new technologies
- Expansion of market transformation activities to include natural gas
- Attracting and serving new, small, remote and more diverse customers
- Leveraging partnerships and pursuing projects that yield additional benefits such as water savings

With insights from a Management Review conducted by an independent third party, we are committed to pursuing new tools and tactics that emphasize and optimize internal operations and result in even more efficiency gains.

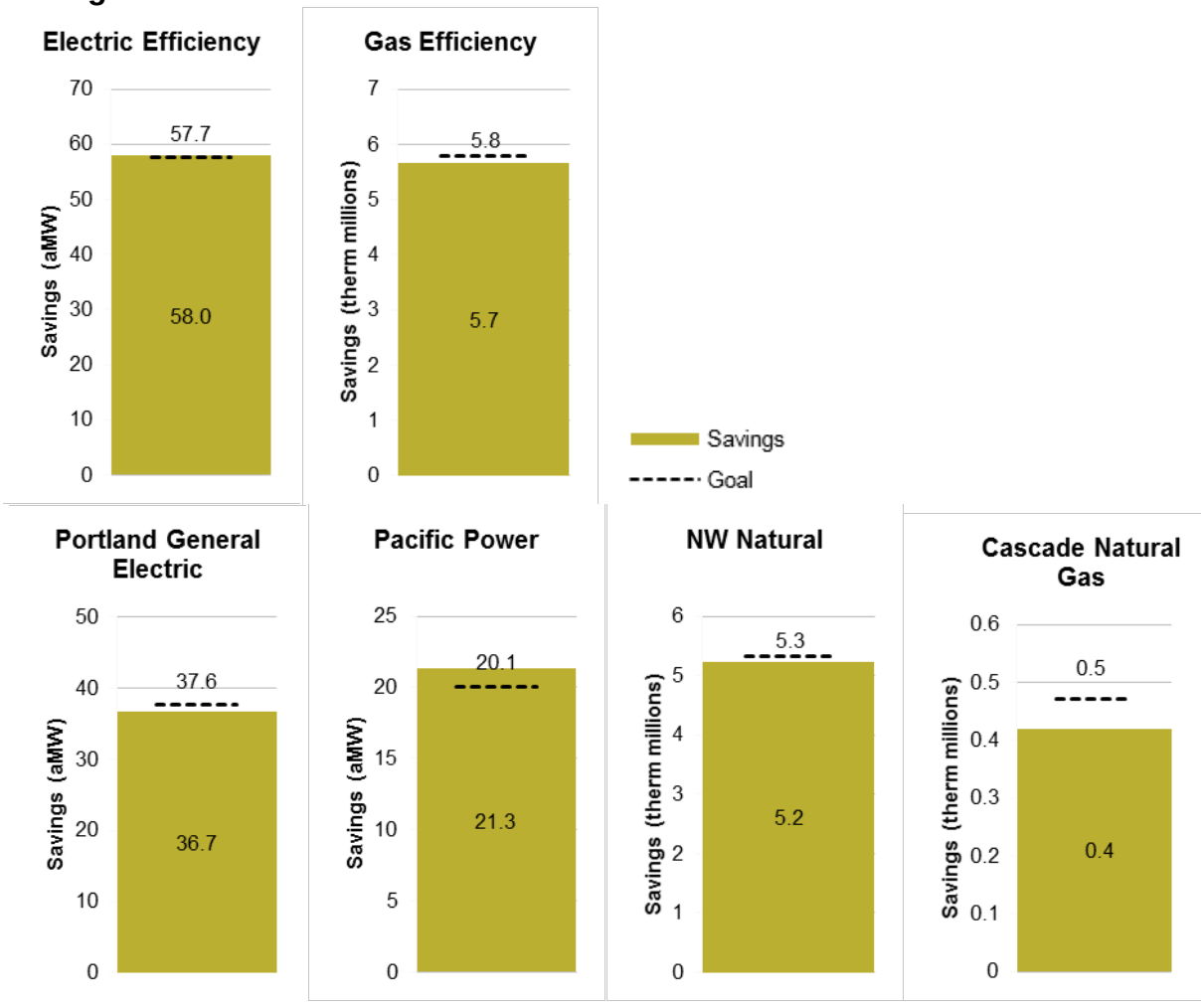
We are ready for the challenges ahead and appreciate new opportunities to deliver clean, low-cost energy for the many thousands of customers we serve. I'm confident that by working with Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas, the Northwest Energy Efficiency Alliance, the Oregon Department of Energy and our nearly 2,700 contractors and allied professionals around the state, we will continue to provide great benefits to Oregonians.

Sincerely,

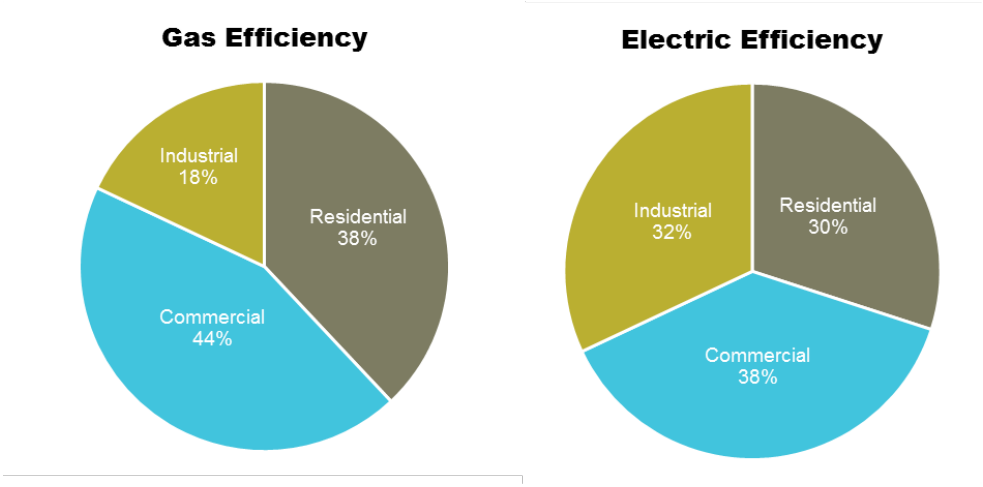
Margie Harris
Executive Director

I 2014 RESULTS AT A GLANCE

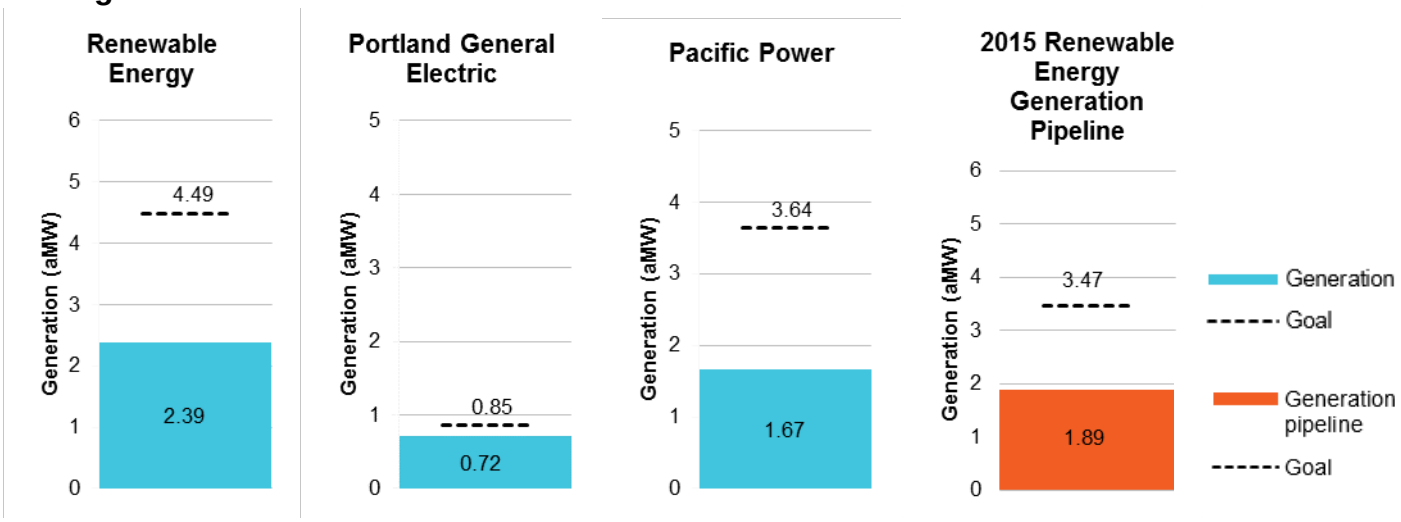
Savings



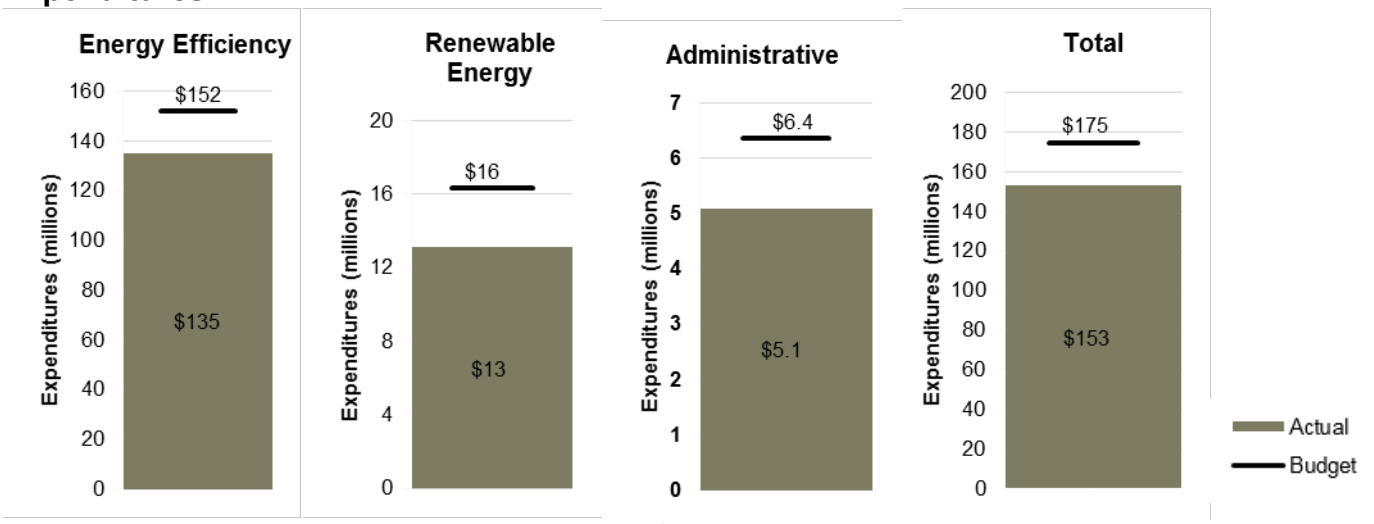
Percent of savings by sector



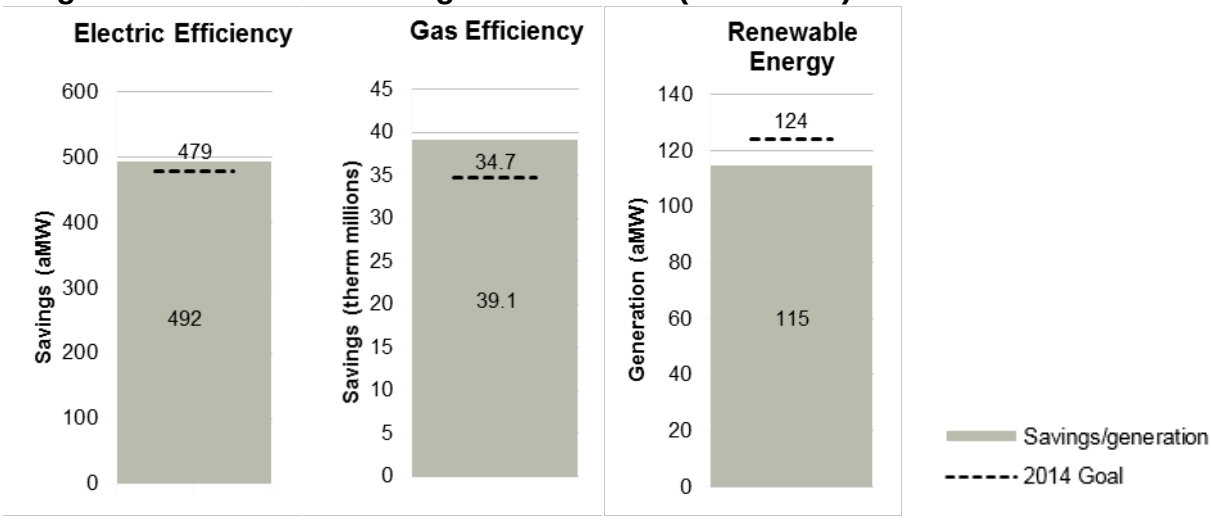
Total generation[1]



Expenditures



Progress toward 2014 Strategic Plan Goals[2] (2002-2014)



[1] The renewable energy sector reached 53 percent of its generation goal due to the delay of six large projects and the cancellation of one project. Four of the six delayed projects are on track to complete in 2015.
[2] Totals include 22 aMW of savings from self-direct customers.

II EXECUTIVE SUMMARY OF RESULTS AND ACTIVITY

A. Annual results[3,4]

- **In 2014, Energy Trust achieved one of its highest-savings years on record** with electric and gas savings goals slightly higher than 2013 goals.
    - **Electric efficiency projects completed in 2014 saved 58.0 aMW of electricity**, more than 1 percent over the 2014 goal, at a levelized cost[5] of 2.6 cents per kWh. This is equivalent to powering 44,977 Oregon homes for a year. Energy Trust delivered nearly 2 percent more electric savings in 2014 than in 2013, at roughly the same levelized cost (2.4 cents in 2013).
    - **Gas efficiency projects completed in 2014 saved nearly 5.7 million annual therms** of natural gas[6], 2 percent below the 2014 goal, at a levelized cost of 33 cents per therm. This is equivalent to heating 11,162 Oregon homes for a year. Gas savings for 2014 are nearly 7 percent greater than 2013 gas savings, and were delivered at roughly the same levelized cost.
    - **Energy Trust exceeded or approached three of four utility-specific Integrated Resource Plan targets.** Energy Trust reached 89 percent of IRP target for Cascade Natural Gas, where a relatively small annual budget and associated savings was significantly impacted when a few large commercial and industrial projects were canceled or delayed to subsequent years.
- **Renewable energy projects achieved 2.4 aMW in new generation** in 2014, at a levelized cost of 5.3 cents per kWh, including 0.72 aMW in PGE territory and 1.67 aMW in Pacific Power territory. This is equivalent to powering 1,850 Oregon homes for a year. Overall generation was 47 percent below the annual goal, impacted by the cancellation of one project and the delay of six large projects—four of which are on track to complete in 2015.
    - **Solar electric projects generated 1.1 aMW**, 157 percent of the OPUC performance Benchmark for standard solar generation.
- **Energy Trust met every OPUC performance measure in 2014**, including:
    - **Maintained low administrative and program support costs** at 4.6 percent of revenue—compared to 4 percent of total revenue in 2013—well below the OPUC performance measure of 9 percent.
    - **Obtained an unmodified financial audit opinion.**
    - **Received the highest ever customer satisfaction ratings** of 96 percent overall and 98 percent for interaction with program representatives.

[3] This document reports net savings, which are adjusted gross savings based on results of current and past evaluations.
[4] 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, 2014, may be different than previously reported as a result of applying updated evaluation factors to Energy Trust funded program savings and generation in Oregon through the annual true up process. The full True Up 2014 Report is available online at www.energytrust.org/reports.
[5] Levelized cost is Energy Trust's total cost to save or generate each unit of energy over the life of the measure (which ranges from two to 20 years or more).
[6] The gas savings do not include results for NW Natural in Washington. These results are reported in Appendix 8.

B. Market and program trends

- **A diverse portfolio of programs and savings strategies is a strength** that helps the organization adjust to variable market conditions and make progress to overall goals. Achievements in 2014 were largely led by New Homes and Products, New Buildings, Multifamily lighting upgrades and commercial and industrial Strategic Energy Management activities. These successes balanced other programs impacted by low natural gas costs that made it more challenging to attract and complete energy-efficiency projects, and a less favorable market for some renewable energy projects.
- **Lighting, especially LEDs, contributed significant savings** in 2014. As the technology improved, market awareness grew and prices declined, demand for LEDs increased from residential, commercial and industrial customers. Residential customers installed nearly 4 million efficient light bulbs, almost one-third of which were LEDs. Lighting upgrades also contributed more than 30 percent of savings from all businesses. For the first time, Energy Trust began installing LEDs instead of CFLs in multifamily dwelling units and distributing LEDs to sixth grade students statewide through LivingWise Kits.
- **The volume of business projects increased dramatically while fewer average energy savings resulted per project.** More and smaller businesses completed energy-efficiency projects, with roughly 20 percent more commercial projects and 10 percent more industrial projects completed in 2014 than compared to 2013.
- **As economic recovery reached much of Oregon, new construction increased** for businesses, homes and multifamily housing across the state. The New Buildings program enrolled more projects than ever before, continuing its multi-year trend of breaking enrollment records. One-half of all New Buildings enrollments were for projects outside of the Portland Metro area, with several new multifamily projects in the Willamette Valley, Central Oregon and Eastern Oregon. New homes rated with EPS™, an energy performance score, reached 34 percent of market share in Energy Trust territory, compared to 21 percent of market share in 2013.
- **Demand for residential and commercial solar incentives was higher than ever in 2014**, with reservations made for 1,623 projects representing 2.19 aMW of new generation. Homeowners installed larger solar systems as residential system prices declined.
- **Participation grew in all areas of the state compared to 2013**, with 42 percent more sites served in Eastern Oregon and 25 percent more sites served in Southern Oregon. Activity was spurred by targeted investments and enhanced outreach to customers, stakeholders and trade allies. As planned, the number of community and cultural events and trainings increased, and that visibility attracted more small and rural customers. Learn more about Energy Trust's extensive outreach efforts on p.23 and about the geographic distribution of sites served on p.34.
- **Additional detailed market activity information** is provided in the program and operations activity and detail section of this report beginning on p.13.

C. Notable achievements

- **The board of directors approved Energy Trust's 2015-2019 Strategic Plan**, following extensive outreach and promotion of the document in a variety of public forums. Staff presented the draft plan to advisory councils and affiliated utilities, and promoted the plan to utility customers, community and business leaders and the general public during 13 presentations

throughout the state. Pacific Power was instrumental in co-hosting strategic plan outreach events that also doubled as forums for business customers, resulting in leads for programs.

- **Energy Trust completed an independent Management Review report submitted** to the OPUC, applauding Energy Trust's performance and practices when compared to similar organizations and identifying specific follow-up actions in response to report recommendations. Conducted every five years, Management Reviews provide third-party evaluation and insights about the effectiveness of Energy Trust operations and are required by the grant agreement with the OPUC.
- **A report on cost-effectiveness exceptions for gas programs** and measures was submitted to the OPUC in response to Docket UM 1622, Order 13-256. After the commission decision on the docket instructed Energy Trust to remove or modify some measures, staff developed an implementation plan to discontinue some measures in spring 2015 that did not receive cost-effectiveness exceptions.
- **The nation's first regional natural gas market transformation initiative was launched** in collaboration with Northwest Energy Efficiency Alliance, NW Natural, Cascade Natural Gas and other regional entities. Beginning in 2015, natural gas market transformation activities will leverage NEEA's success in electric market transformation to advance market adoption of energy-efficient natural gas products, such as residential gas heat pump water heaters, combined space and water heating equipment, hearths and dryers.
- **In 2014, Energy Trust was recognized as one of the 100 Best Nonprofits to Work for in Oregon** by Oregon Business Magazine, ranking third on the list of large organizations. In addition, Energy Trust received a 2014 State Leadership in Clean Energy Award from the Clean Energy States Alliance for its work with the City of Gresham Wastewater Treatment Plant.
- **Energy Trust completed transitions to a new Products Program Management Contractor** in the New Homes and Products program, and to two new Program Delivery Contractors for the commercial Strategic Energy Management offering. These new contractors were selected through competitive processes that ensure delivery of effective services and value for customers.
- **The organization pursued strategies to further strengthen and quantify benefits of operational systems**, including projects to expedite processing times, streamline work and keep administrative and support costs low. A few examples include developing online application forms, transitioning to paperless project files, using tablet devices in the field and other software changes to improve the efficiency and accuracy of tracking project and site details. See more examples in Appendix 3.

D. Revenue and expenditure results

- **Overall revenue totaled $162.3 million for 2014,** approximately on target with what was budgeted.
- **2014 expenditures totaled $153.0 million**, of which $84.6 million or 55 percent was for incentives, compared to 52 percent last year. 2014 renewable energy expenditures were 20 percent below budget due to project completions shifting into later years. Efficiency expenditures were also below budget in 2014, by 10 percent for electric expenditures and 21 percent for gas expenditures. Efficiency underspending reflected a high proportion of savings acquired at very low costs, especially from large commercial and industrial customers.

- **Energy Trust implemented improvements to the 2015 budget development process** following consistent monitoring of forecasted and completed efficiency and renewable energy projects and corresponding expenditures. New forecasting methods were implemented across the organization, including more tools for budget managers to use when estimating costs. In addition, by shifting budget coordination meetings with utilities from July to October, more time was allowed to refine year-end expenditure forecasts and prepare accurate cost estimates for the upcoming year. It is planned and anticipated that existing reserve levels will be drawn down in future years.
- **Energy Trust initiated an opportunity to reduce revenue collections as a result of achieving a higher volume of lower-cost savings than budgeted** over the past few years and implementing a new approach to annual budgeting. During the fall budget season, agreement was reached with three of four utilities and approved by the OPUC to collect less revenue next year and to reduce reserve accounts over the next three years.

E. Total impact and benefits over time

- **Energy Trust well exceeded 2010-2014 Strategic Plan goals for electric and gas savings, and approached goal for renewable energy generation.**
    - **Since 2002, annual savings total 492 aMW of electricity[7] and 39.1 million therms** of natural gas, equal to 103 percent of 2010-2014 Strategic Plan electric goal and 113 percent of the 2010-2014 Strategic Plan gas goal.
    - **Since 2002, annual generation equals 115 aMW of renewable energy**, approximately 93 percent of the 2010-2014 Strategic Plan goal of 124 aMW.
- **Total annual electric savings and generation since 2002 represent energy savings equivalent to building an energy-efficiency power plant** or enough clean energy to power more than 470,705 Oregon homes. Total annual gas savings since 2003 represent enough fuel to heat more than 77,194 Oregon homes with natural gas for a year.
- **The net economic benefits of Energy Trust 2002-2014 expenditures**, energy savings and renewable energy generation added $3.9 billion to the local economy, including $1.2 billion in wages, $223 million in small business income and employment equivalent to 3,200 full-time jobs lasting a decade.[8]
- **Since 2003, Energy Trust has invested more than $9.5 million in energy-efficiency projects at nearly 1,100 public and private K-12 Oregon schools**. The organization also provided more than $2.1 million in funding for solar electric and wind energy systems at nearly 50 schools.
- **Air quality improvements stemming from Energy Trust investments have kept more than 14.6 million tons of carbon dioxide out of the atmosphere**, the equivalent of removing more than 2.5 million cars from Oregon roads for one year.

[7] Savings from self-directed efficiency projects count toward the goal of achieving 479 aMW of electric savings by 2014. To date, 22 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] The net economic benefit of Energy Trust expenditures, savings and generation is calculated from an independent analysis by Pinnacle Economics completed in 2014.

III BACKGROUND, MISSION AND GOALS

A. Background

Since March 2002, Energy Trust has been entrusted to invest public purpose funds from utility customers and deliver benefits from energy-efficiency improvements and renewable energy generation. Our mission is to help customers and utilities meet their energy needs with the cheapest and cleanest energy available. We serve customers in coordination with utilities, community and industry organizations, government agencies and two other electric public purpose fund administrators—Oregon Housing and Community Services and the Oregon Department of Energy. This critical work benefits our state by building a more sustainable and brighter energy future, and contributing to our local and state economy in positive ways.

Energy Trust is an independent 501(c)(3) nonprofit organization funded by and serving Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas, and NW Natural customers in Washington. We offer energy efficiency and renewable energy programs and services to every type of customer, including those who own, rent or lease their home or building, product manufacturers, small and large businesses and industries, nonprofit and public organizations, farmers and ranchers. New offers and effective collaboration enable us to provide clean energy solutions for a growing number of consumers, businesses, communities and schools. Our programs provide information, technical expertise and financial assistance to motivate people to modify their energy usage habits, choose high-efficiency products, invest in energy-efficient construction and install renewable energy projects. Through these actions, participating customers derive a range of benefits—lower energy bills, greater comfort, better indoor air quality, improved productivity and lower carbon emissions.

As a steward of utility customer dollars, we consistently maintain low administrative and program support costs, and ensure the majority of public purpose funds flow back to customers as incentives, services and education. Our residential and commercial energy-efficiency programs are competitively bid and managed by contractors, assuring the best prices for the services provided. The 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—many of whom employ 20 or fewer staff—already serving customers in the marketplace. We support and leverage this network of trade ally contractors, allied professionals and participating retailers throughout the state who are familiar with Energy Trust incentives and connect customers directly to them. This approach keeps Energy Trust costs low, supports our region's energy services sector and sustains opportunities in the areas we serve.

Our work is shaped by advice from two advisory councils comprised of stakeholders and led by an independent, diverse board of directors whose members volunteer their time and expertise. We strive to be inclusive and transparent by holding open meetings and publishing meeting agendas, notes, independent third-party evaluations of programs, draft and final budgets and action plans, reports and audited financial statements on our website.

We comply with legal requirements and minimum performance measures set forth in our contract with the Oregon Public Utility Commission. In addition, annual goals for electric and natural gas energy savings and renewable energy generation are developed in consultation with PGE, Pacific Power, NW Natural and Cascade Natural Gas and built from each utility's Integrated Resource Plan. This collaboration

enables Energy Trust to focus on and be accountable for delivering the lowest-cost energy available to meet the needs of every utility customer.

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. 2010-2014 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

F. Planning for the future

In 2014, Energy Trust worked with utilities, OPUC, customers, other stakeholders, the board and staff to identify new goals and strategies for the next five years. Additional information and a copy of our 2015-2019 Strategic Plan are available at www.energytrust.org/about. Cumulative results for the 2010-2014 plan period are provided on pp. 6 and 10 of this report.

IV PROGRAM AND OPERATIONS ACTIVITY AND DETAIL

2014 residential activity

New homes and major remodels	**2,287**
New homes constructed	2,179
New manufactured homes	108
Weatherization retrofits	**6,746**
Single-family site-built	5,424
Existing manufactured homes	1,322
Home Energy Reviews[1]	**1,680**
Total Sites	**10,713**
Heating systems	**4,372**
Water heaters	**735**
Solar	35
High-efficiency products	**16,940**
Washing machines	14,022
Refrigerators & freezers	2,918
High-efficiency lighting[2]	**3,565,257**
Refrigerators, freezers recycled	**12,471**
Energy Saver Kits sent	**35,057**
Total Other Activity	**69,575**

[1] Includes in-home reviews only; Home Energy Reviews are also available online and by phone
[2] Lighting excluded from totals

2014 commercial activity

New Buildings sites served[1]	**463**
Whole building approaches	46
Packaged solutions for market segments	78
Standard/system-based approaches	342
Existing Buildings sites served[1]	**2,785**
Building Operator Certification	12
Custom[2]	358
Lighting	1,592
Prescriptive/standard[3]	962
SEM projects	**33**
Completed	3
In progress	30
Existing multifamily sites served	**2,260**
Solar water heating sites served	**5**
Sites receiving technical assistance	**667**

[1] New Buildings and Existing Buildings total sites served may include sites that participated in more than one program track
[2] The most common custom improvements are building controls and HVAC
[3] The most common prescriptive/standard improvements are foodservice and grocery equipment

2014 industrial/agricultural activity

Projects	**1,124**
Streamlined industrial[1]	596
Lighting	297
Custom[2]	193
Strategic Energy Management[3]	38
SEM projects in progress	**38**
Incentive offers made[4]	**902**

[1] The streamlined track delivers savings from irrigation measures, small compressed air, variable frequency drives and other prescriptive and calculated measures
[2] Such as compressed air system and process upgrades
[3] Savings from no-cost or low-cost operational improvements
[4] Incentive offers made to and accepted by customers, with two years to install upgrades and receive incentives

2014 renewable energy activity

Solar electric installations	**1,292**
Residential	1,238
Commercial	54
Other Renewable projects	**3**
Biopower projects	0
Wind projects	1
Hydropower projects	1
Geothermal projects	1
Total	**1,295**
Other Renewable projects in process	**4**

2014 trade ally activity

Regional trade ally roundtable meetings	**17**
Attendance	470
Trainings provided	**105**
Allies added to network	**284**
Trade allies	231
Real estate allies	33
Design allies	20
Trade allies accessing business development funds	**370**

2014 operations activity

Projects completed in IT systems	**98,642**
Calls received	**26,607**
Website visits	**904,733**
info@energytrust.org inquiries	**1,747**
Complaints	**23**
News stories in print, broadcast	**355**
New efficiency measures	**286**
Market evaluations and studies	**29**

A. Commercial sector highlights

- **The commercial sector, comprising Existing Buildings, New Buildings and Multifamily, exceeded goals in Pacific Power and NW Natural territories, and fell short of goals in PGE and Cascade Natural Gas territories**. The shortfalls were largely due to difficulty in closing Existing Buildings projects and limited savings achieved through commercial Strategic Energy Management.
- **Approximately 5,571 commercial sites were served during 2014**, representing a wide variety of business types and widely dispersed locations throughout Energy Trust territory.
- **The first office building installed energy upgrades through a Pay for Performance pilot**, located in downtown Portland, and contracts for a second office building selected through a request for proposals will be negotiated in 2015. The pilot effort will determine if paying incentives for capital and operations and maintenance improvements over a multiyear period will help contractors achieve additional energy savings from more comprehensive projects.
- **The sector completed 21 deep retrofit projects**[9] out of 143 projects identified as renovations. The 21 projects completed upgrades to at least two major building systems.
- **Savings from NEEA activities comprised approximately 5 percent and 7 percent** of the sector's results for PGE and Pacific Power territories. Commercial sector market transformation savings were driven primarily by improvements to commercial building code, efficient computer equipment and Building Operator Certifications.

Existing Buildings

- **Lighting provided the biggest share of electric savings in 2014**, followed by custom, prescriptive and SEM projects. Gas savings were roughly split between custom, prescriptive and SEM projects.
- **Natural gas savings were realized from foodservice equipment, prescriptive projects**, commercial SEM and Building Operator Certifications, though a lack of large custom projects impacted gas savings.
- **Of the program's record high lighting savings, 68 percent came from LEDs**, including indoor fixtures, street lighting, exterior fixtures and lamps. Lighting projects were supported by increased lighting incentives and expanded incentives paid directly to distributors that reduce upfront costs for small customers.
- **The program launched a pilot project to help small commercial customers install efficient lighting**, covering 80 percent of lighting installation costs and providing zero-interest financing and a 5 percent discount for customers who pay up front.
- **Bonuses for prescriptive upgrades, such as HVAC equipment, helped the program achieve electric and natural gas savings at year-end**, both from small and large customers.
- **In 2014, 33 companies participated in the commercial SEM offering**, saving 64 percent more electricity and 22 percent more gas savings than in 2013. Existing Buildings also launched an

[9] Based on a working definition of commercial deep retrofits developed for the purpose of OPUC reporting, deep retrofit projects typically achieve approximate savings of 40 percent beyond market average by following a number of pathways. A project must be a major renovation of an existing commercial building and receive incentives for one of the following: Market solutions package, Leadership in Energy and Environmental Design achieving a 25 percent reduction for Energy and Atmosphere credit 1 points, Path to Net Zero or upgrades to at least two major building systems (such as HVAC, lighting or shell measures). The building can be large or small and the project can be simple or complex, applying multiple system-level upgrades or more holistic, customized energy-efficiency strategies.

SEM Continuation opportunity—a one- or two-year offering to enable customers to continue and expand SEM efforts after completing the first year of SEM engagement—resulting in 100 percent enrollment of 2013 participants. In Q4, Existing Buildings selected two firms to deliver the SEM offering through a competitive bid process.

- **The program completed more small- to medium-sized projects in 2014 than in 2013**, building on the success of having served many large Existing Buildings customers in the past 10 years. To reach more small- and medium-sized businesses in 2014, the program expanded outreach and walk-through surveys.
- **A new Small School District Outreach initiative helped small and rural school districts** leverage the Oregon Department of Energy schools program.

Multifamily

- **The Multifamily initiative installed energy-saving products in 28,310 dwelling units—a nearly 60 percent increase over 2013**—including apartments, campus living facilities, assisted living facilities and affordable housing. Direct installation of these light bulbs, showerheads and faucet aerators comprised the majority of multifamily electric and gas savings in 2014. Common-area lighting projects contributed additional electric savings, and prescriptive projects also provided gas and electric savings.
- **In Q4, Multifamily began installing LEDs instead of CFLs, providing more savings per bulb**, appealing to customers and increasing the number of bulbs installed per unit.
- **Year-end bonuses supported equipment savings** for packaged terminal heat pumps, ductless heat pumps, water heaters and boilers.
- **Multifamily increased service to rural and remote customers** through business development efforts and outreach to increase the Trade Ally Network in Southern and Eastern Oregon.
- **To support customer decision-making, a new Energy Savings Action Plan report** was provided to customers. The report aggregates and ranks savings opportunities by return on investment, the cost of delaying upgrades and non-energy benefits.
- **The first eight projects completed participation in MPower Oregon**, a pilot using a utility on-bill repayment mechanism to help people who live in affordable housing developments benefit from energy-efficiency upgrades and resulting energy and cost savings. An additional 24 projects are anticipated to close by July 2015.

New Buildings

- **New Buildings enrolled a record 565 projects in 2014, 34 percent more than in 2013,** including the 2,000th project. With a growing new construction market statewide, one-half of all new projects enrolled were outside the Portland Metro area.
- **Installation of system-based measures accounted for nearly one-half of electric savings and more than two-thirds of gas savings**. System-based upgrades apply to full systems, such as a lighting system with controls. With more savings per project on average, data centers, market solutions projects and projects using a whole-building model to estimate savings contributed the remaining savings.
- **New Buildings enrolled the 100th market solutions project since the launch of the offering** in late 2012, and closed 50 such projects in 2014 alone—more than three times the number closed in 2013. Market solutions provides customers with pre-packaged incentives designed to

help achieve deeper energy savings in construction of small restaurant, grocery, multifamily, office, school and retail buildings less than 70,000 square feet.

- **In 2014, 14 large electric and four large gas projects supported the program's savings**, including projects saving more than 500,000 kWh or 20,000 therms. Given long construction timelines typically spanning from two to four years for large projects, New Buildings anticipates fewer large projects in 2015 and more large projects in 2016.
- **Completion of two data centers contributed substantial electric savings in 2014**, with completion of a third data center delayed to 2016. Though difficult to predict and plan for, data centers continue to be an important source of savings for the program.
- **Construction of new multifamily buildings delivered significant savings in 2014**, and new multifamily construction is expected to grow through 2015.
- **New Buildings launched Path to Net Zero as a full program offering, with 15 projects enrolled in 2014**. Path to Net Zero offers early design assistance, technical support and cash incentives for projects that offset energy consumption with energy efficiency and renewable energy generated onsite.
- **A four-fold increase over 2013, 12 projects completed a solar-ready assessment** in 2014 following the program's solar and solar-ready outreach efforts. In coordination with the Solar program, New Buildings offers technical and financial support to architects, engineers and builders who incorporate solar into new commercial building designs. Building solar ready enables less costly future solar installations.
- **Strong statewide customer and ally engagement continued with 160 presentations** and three Allies for Efficiency trainings attended by 420 participants in Portland and at satellite training locations in remote areas of the state. The focus on engaging remote allies resulted in a 23 percent increase in the number trade allies participating outside of the Portland Metro area.

B. Industry and agriculture sector highlights

- **The industry and agriculture sector exceeded goals in electric utility territories**. Electric savings were derived from targeted incentive increases and a new comprehensive outreach approach in which Program Delivery Contractors promoted offerings to all sizes of customers based on geographic territories.
- **The sector fell short of goals in gas utility territories**, attributed to the delay of several large projects and low gas savings from industrial Strategic Energy Management efforts. A year-end bonus and targeted outreach stimulated a number of projects in Cascade Natural Gas territory for 2015.
- **Savings from NEEA activities comprised approximately 1 percent of the sector's results** in both PGE and Pacific Power territories. Sales of efficient electric motors driven by federal standards were the primary source of savings.

Production Efficiency

- **The program completed a record 1,124 projects in 2014**.
- **Bolstered by a year-end bonus, custom projects made up roughly one-half of electric savings**, followed by industrial SEM at nearly a quarter of electric savings. After an incentive increase in Q1, savings from lighting projects increased significantly over 2013 to comprise 16

percent of total electric savings. Other streamlined projects, including trade-ally delivered projects at small and large industrial sites, contributed the remainder of electric savings.

- **More than 60 percent of gas savings came from heat recovery, boiler and other custom projects,** and 35 percent came from streamlined projects, primarily greenhouse upgrades.
- **A record 36 customers completed SEM participation in 2014**, half of which were small- to medium-sized customers. Production Efficiency launched the first SEM cohorts in the Willamette Valley, Central Oregon and Southern Oregon, with strong participation in each region.
- **LEDs comprised approximately 60 percent of Production Efficiency lighting savings** in 2014, compared with under 20 percent in 2013.
- **The new Performance+ offering, formerly the Comprehensive Lighting Pilot**, accounted for 18 percent of the program's lighting savings in 2014. Performance+ provides enhanced incentives for comprehensive lighting retrofits that incorporate sophisticated lighting design strategies with controls technologies.
- **Completion of a megaproject generated more savings than expected**, and Production Efficiency received Energy Trust board approval to pursue an even larger project expected to begin in 2016. A megaproject is a large energy-saving project receiving more than $500,000 in incentives.
- **Two successful pilots completed in 2014.** The second year of the CORE pilot, an SEM offering for small- to medium-sized industrial customers, resulted in participants saving 7.5 percent of annual energy use on average. In addition, Scientific Irrigation Scheduling will continue as a regular program offering, following analysis of a two-year pilot. Scientific Irrigation Scheduling supports agricultural customers and also contributes to water savings.
- **Production Efficiency connected with customers at events statewide**, including the Oregon Women for Agriculture annual meeting that resulted in three project leads, outreach events in Salem and Medford with 39 companies in attendance, six Pacific Power business customer breakfasts, a Sustainable Brewers networking event and the first-ever breakfast events for commercial and industrial customers in Ontario and Hermiston.

C. Residential sector highlights

- **The residential sector, comprised of Existing Homes and New Homes and Products programs, exceeded goal in Cascade Natural Gas territory and approached goals in PGE, Pacific Power and NW Natural territories**. Lighting, new EPS homes and ducted and ductless heat pumps drove savings for the sector.
- **More than 77,000 new and existing homes received Energy Trust services** in 2014.
- **Savings from NEEA activities comprised approximately 22 percent of the sector's savings** in both PGE and Pacific Power territories. Sales of energy-efficient televisions and improvements in residential building code contributed the majority of savings, with the rest from ductless heat pump and heat pump water heater sales and a state standard for efficient battery chargers.

Existing Homes

- **Existing Homes promoted energy-saving products to help mitigate reduced demand for Home Performance upgrades.** These light bulbs, showerheads and faucet aerators provided savings for many first-time Energy Trust customers especially in remote and rural regions, comprising about 70 percent of the program's electric savings and 60 percent of gas savings in

2014. The program's remaining electric and gas savings came primarily from HVAC equipment and weatherization.

- **Weatherization projects were impacted by low prices of natural gas** and an OPUC decision to modify or discontinue some gas-saving measures that did not meet the cost-effectiveness requirement. To increase cost-effectiveness of air sealing and ceiling insulation measures, the program launched a pilot to determine if combining air sealing with ceiling insulation could reduce installation costs. Results are expected in 2015.
- **Though fewer than expected, Energy Trust completed 903 residential deep retrofits**[10] in 2014, including Home Performance with ENERGY STAR® and Clean Energy Works projects. Clean Energy Works, representing the largest share of deep retrofit projects at 593, offers access to financing for whole-home energy-efficiency improvement projects using standard Energy Trust incentives for measures installed by Home Performance trade allies.
- **For the first time, Existing Homes included LEDs in LivingWise Kits**, promoting public awareness about this new energy-saving technology. Approximately 19,000 LivingWise kits were delivered to sixth-grade students and their families through Oregon schools, including in rural and remote areas of the state.
- **Fall bonuses and targeted direct marketing bolstered sales for heat pumps, heat pump water heaters, gas fireplaces and energy-efficient windows**. Existing Homes also selected eight contractors across the state to offer ductless heat pumps at a reduced cost to residents of manufactured homes and introduced a gas furnace incentive for single-family rental homes.
- **Energy Trust completed two Opower efforts, which generated fewer savings** than expected: a study to determine how long savings persist after a portion of PGE and NW Natural customers received reports for two years and a new effort targeting high energy users in Pacific Power territory. Overall savings related to Opower efforts were lower than expected due to fewer Pacific Power customers receiving reports than scheduled and preliminary results showing 1 percent average savings, compared to typical average Opower savings of 1.5 to 2 percent. The program will explore alternate residential behavioral savings approaches in 2015.
- **The program allowed select 3-star trade allies to offer instant incentives** for HVAC and water heating equipment, enabling customers to receive discounted equipment at time of purchase. This shifted the responsibility for submitting incentive applications from customers to trade allies, resulting in a higher rate of completed and qualifying applications, expediting incentive processing and reducing program delivery costs per unit.
- **Existing Homes launched a new Savings Within Reach on-bill financing repayment** offering with enhanced incentives for moderate-income residents, reducing upfront costs as a barrier to installing energy-efficient upgrades. With 51 applications received in 2014, the offering attracted participation from moderate-income residents, especially in Southern Oregon and the Portland Metro area.

[10] Energy Trust defines residential deep retrofits as achieving a 20 percent or greater reduction in heating load through two or more weatherization or heating improvements installed at the same time. Many additional customers achieve whole-home savings through installing a series of single upgrades over a period of months or years.

New Homes and Products

- **New Homes and Products installed a record number of energy-efficient light bulbs** in 2014, more than 30 percent of which were LEDs. Lighting accounted for more than three-quarters of the program's electric savings, with general purpose CFLs representing 41 percent, LED bulbs representing 18 percent and specialty CFLs representing 15 percent. Refrigerator recycling and EPS homes contributed modest savings.
- **Market transformation accounted for nearly one-half of gas savings in 2014**, followed by EPS homes at 25 percent and showerheads at 22 percent. Market transformation includes Energy Trust's influence on both the 2008 and 2011 state building codes, guiding builders who do not work directly with Energy Trust to incorporate energy-efficient building techniques for the benefit of customers.
- **The program rated the 6,000th EPS home and achieved 34 percent market share** for EPS in Energy Trust service territory, up from 21 percent in 2013 and well above the program's goal of 25 percent. EPS helps homebuyers understand and compare the energy consumption of similarly sized homes. In 2014, 63 EPS-rated homes were featured in six home tours around the state.
- **Savings per EPS-rated home increased in 2014 as builders exceeded code specifications**, with 84 percent of builders following Energy Trust's most stringent pathway to achieve savings in new home construction.
- **New Homes and Products launched an incentive for real estate brokers** to upload EPS information to RMLS listings, helping educate homebuyers about the value of energy-efficient homes.
- **A new outreach strategy to provide energy-saving products to rural customers** through mobile, pop-up retail booths will expand statewide in 2015, following successful test efforts in the Portland Metro area in 2014.
- **Fewer energy-efficient appliances were purchased than expected**, likely due to limited incentives, a change in ENERGY STAR specification for refrigerators that led to a supply shortage and a nationwide trend of flat appliance sales. To boost savings, the program launched new instant incentives for efficient appliances at select Sears stores around the state, improving the customer experience and streamlining incentive processing.
- **New Homes and Products recycled its 100,000th refrigerator or freezer since 2008**, following an extended Oregon Food Bank coordination effort resulting in more than $48,000 in donated refrigerator incentives. Refrigerator recycling remained a major source of energy savings even with the introduction of two-tiered incentives, with customers receiving $20 or $40 based on the age of their unit.
- **The program provided energy-saving products for moderate-income and rural customers** in collaboration with the City of Portland, targeted stores and community action agencies around the state.
- **Savings from new manufactured homes were bolstered by favorable economic conditions** for many buyers.

D. Renewable energy sector highlights

- **The renewable energy sector, comprised of Solar Electric and Other Renewables programs, reached 53 percent of its generation goal** due to the delay of six large projects and the cancellation of one project. Four of the six delayed projects are on track to complete in 2015. The remaining two delayed projects are in contract negotiations with construction timelines yet to be finalized. Delays for these complex projects are typical and result from slower-than-expected bidding and contracting, and parts delivery and permitting delays. The one cancelled project was caused by low wholesale electricity rates and uncertain federal tax credits.
- **Thriving residential and rebounding commercial solar markets** contributed to renewable energy generation in 2014, along with completion of a geothermal, a mid-scale wind and a hydropower project. The sector met all OPUC performance measures for the year.
- **Other Renewables and Biopower programs were combined** into a single Other Renewables program in 2014, providing flexibility to shift funding between the technologies and target strategic opportunities.

Solar

- **In 2014, 1,292 solar projects were installed and contributed 1.1 aMW of** new generation, 43 percent of the Solar program's generation goal. The program met 164 percent of its OPUC performance benchmark for standard, net-metered generation through these solar installations. This OPUC performance benchmark excludes generation from large custom solar projects.
- **The program supported a record 1,238 residential systems and 0.85 aMW of generation** installed, a 58 percent increase over 2013 generation, due to a rising tide of customer interest in solar and reductions in solar costs. In addition, the program installed the 6,000th residential solar system since 2003.
- **Homeowners installed larger solar systems as residential system prices declined** in 2014. The average residential solar system installed in 2014 was 5.8 kW, up from 5.6 kW in 2013 and 5.2 kW in 2012. Strong growth occurred in both customer-owned and third party-owned systems, with customer-owned systems representing more than 40 percent of the market.
- **Energy Trust supported 54 commercial, industrial, nonprofit and public solar systems** in 2014, compared to 42 in 2013. To date, 850 non-residential installations have been installed with a total capacity of 24 MW.
- **The commercial solar market is regaining momentum**, closing out 2014 with the largest commercial solar pipeline since the expiration of Oregon Business Energy Tax Credits.
- **In 2014, 44 percent of solar capacity installed was outside of the Portland Metro area**. In addition, staff provided marketing and outreach support for Solarize programs in the Columbia Gorge, Wallowa County and Rogue Valley.
- **The 3-MW Steel Bridge solar project was chosen** through a competitive request for proposals for custom solar projects in PGE territory and is expected to complete in 2015.
- **Three large, custom solar projects were delayed in 2014**, limiting generation for the renewables sector. One of these projects is expected to complete in 2015, and the two remaining projects are in contract negotiations with construction timelines yet to be determined.
- **The Solar program initiated efforts to reduce the non-hardware or "soft costs" of installing solar systems**—including labor, marketing and permitting work—which can represent a majority of installation costs. Efforts included:

- **A test offering of Mapdwell: Solar System™** for Washington County customers, an online solar assessment tool that estimates solar energy potential and installation costs for homes and buildings in a given community. If effective at generating customer leads for trade allies and therefore reducing marketing costs, Energy Trust will consider expanding the Mapdwell offering to the full service territory. Along with Boston and Washington D.C., these Oregon cities are the first in the country to have access to this tool.
- **A survey to benchmark current soft costs**, in collaboration with the National Renewable Energy Lab and Lewis & Clark College's Green Energy Institute. Survey results will provide metrics against which to evaluate soft cost reduction efforts.
- **A customer referral program that generates leads for trade allies** from Energy Trust's website, reducing the cost to trade allies of acquiring new customers.

Other Renewables

- **Three Other Renewables projects reached commercial operation in 2014**:
  - **1.75-MW geothermal facility at Oregon Tech** in Klamath Falls, the first university in North America to generate all of its electricity onsite
  - **700-kW hydropower project at Three Sisters Irrigation District** in Sisters that also includes the non-energy benefits of water conservation and stream restoration
  - **50-kW wind turbine installed by the Confederated Tribes of the Umatilla Indian Reservation** near Pendleton, the only wind turbine on a Native American reservation in the Pacific Northwest
- **Delay of two custom projects and cancellation of one project limited generation** in 2014. The Gresham Wastewater Treatment Plant biogas project was slowed until early 2015 due to construction delays and additional required metering. A small hydropower project in Astoria was also delayed because of lags in contracting and electrical code inspections. Finally, a biogas project at a dairy was cancelled due to poor market conditions.
- **The pipeline for upcoming large renewable energy projects grew**. Other Renewables targeted support for projects with additional non-energy benefits and projects that can net-meter, primarily hydropower projects with irrigation districts and biopower projects at wastewater treatment plants.
- **The program approved two large project development assistance awards for geothermal projects**, resulting from two competitive solicitations in 2014. The program provided more than $500,000 for a range of development assistance to biopower, hydropower, geothermal and wind technologies in 2014, exceeding the amount provided in 2013. See Appendix 4 for full details.
- **Staff reached out to wastewater treatment plants, food processors, irrigation districts** and other agricultural water supply stakeholders in 2014. These outreach efforts focused on identifying potential new projects that recognize multiple benefits such as water conservation that may attract additional funding sources. Farmers Conservation Alliance was selected to manage an irrigation hydropower initiative starting in 2015 that leverages external funding resources for projects at irrigation districts that have benefits in addition to electricity generation.

E. Highlights of internal operations

Communications

- **Received 904,733 website visits in 2014, a 21 percent increase** over the 745,244 website visits received in 2013. A marketing campaign designed to drive customer awareness and engagement in Energy Trust programs contributed significantly to the increase in web visits, aided by marketing promotions for residential lighting, residential weatherization bonuses and Energy Saver Kits.
- **Generated 18,000 visits to the Energy Trust website through our first-ever holistic marketing campaign** promoting services and incentives to customers of all residential and commercial programs.
- **Enhanced the website with more visible renewable energy program information**, including an automated intake form for customers seeking proposals for solar projects.
- **Distributed 34 press releases in 2014**, featuring completed energy-efficiency and renewable energy projects around the state, new board members, Energy Trust offers, bonus incentives, program promotions, results and customer benefits.
- **Garnered 355 news stories about Energy Trust in print and broadcast** with a media value of $330,000—what it would have cost to purchase the equivalent advertising space and air time—as a result of media outreach and responses to reporter inquiries.

Customer service

- **Received 26,607 calls to the main hotline in 2014, 3 percent fewer** than the 27,413 calls received in 2013. Call volumes have decreased since 2009 as Energy Trust has expanded web-based customer services and added online forms.
- **Received and responded to 1,747 inquiries via info@energytrust.org, 8 percent more** than the 1,612 emails received in 2013. The most common requests were for information about Existing Homes offerings.
- **Received and addressed 23 complaints**, compared to 18 received in 2013. This represents 0.08 percent of all calls and email inquiries.
- **Enhanced strategies to manage, resolve and prevent complaints**, such as updating the complaint tracking system and reports, enhancing call monitoring and feedback to representatives, creating a complaint resolution team and identifying complaint trends. Evaluation received in 2014 led to program process improvements, new training materials and protocols for call center staff.
- **Improved and provided customer experience training** for new and existing internal and Program Management Contractor staff, ensuring consistent understanding of the organization's background, customer service values and customer channels.

Trade and program allies

- **Met with 470 trade allies at roundtables** in Baker City, Bend, Eugene, Hermiston, Medford, Ontario, Pendleton and Portland. Quarterly trade ally roundtables included program updates, marketing guidance, presentations from product distributors and program and lending allies, networking opportunities and a new approach to roundtable breakout sessions based on trade ally feedback.

- **Provided ongoing support for trade allies** through webinars and training opportunities, individual meetings and regular communication through a monthly e-newsletter, Insider. Energy Trust strategy relies increasingly on trade allies to communicate about and deliver Energy Trust offerings to customers.
- **Identified changes to insurance tracking processes, reducing** administrative work by approximately 20 hours per quarter while maintaining trade ally compliance with insurance requirements.
- **To boost awareness of opportunities for minority- and women-owned businesses**, hosted tables at the 2014 Governor's Marketplace Conference and Oregon Association of Minority Entrepreneurs trade show, reaching approximately 100 interested companies.
- **To help trade allies make the case for energy-efficient upgrades**, sponsored a training for the Energy Efficiency Funding Group's "Efficiency Sales Professional" certification program.
- **Pursued funding from the U.S. Department of Agriculture's Energy Efficiency Conservation Loan Program** for a potential initiative to replace inefficient, old and unsafe manufactured homes in rural Oregon.
- **Helped develop a Multnomah County Commercial Property Assessed Clean Energy program**, in collaboration with the Portland Development Commission and the county, to provide funding for commercial property owners who complete comprehensive energy efficiency and renewable energy projects. With the long-term loans repaid through energy savings or electricity production, the PACE lending model supports projects with 100 percent funding and no upfront costs.

Outreach

- **Hired a southern Oregon outreach manager and senior community relations manager**, expanding Energy Trust's ability to reach and engage with customers, communities and stakeholders across Energy Trust service territory.
- **Facilitated collaboration with the Hermiston School District's** Columbia Basin Homes Building program to help student builders learn about energy-efficient construction and complete construction of an EPS-rated home in Hermiston.
- **Staffed tables and engaged with customers at a broad range of events statewide**, including Hermiston Farm Fair, SolWest Energy Fair in Eastern Oregon, Native American Youth and Family Center Pathways to Homeownership and Rogue Valley's Green and Solar Tour. General event outreach like this enables program outreach to be more targeted. To reach industrial and commercial customers in Wallowa, Umatilla and Malheur counties, coordinated with local economic development agencies, utilities and USDA.
- **Collaborated with utilities through 14 joint presentations** to help clarify for utility customers the relationship between Energy Trust and their utility, and promote participation opportunities and benefits.
- **Engaged more than 200 public sector staff and elected officials** to increase awareness of Energy Trust offerings and leverage public resources through coordination. Facilitated 34 visits to regional stakeholders, customers and contractors and delivered 37 presentations to local governments, elected officials, civic leaders and tribes. As a result, established relationships with Klamath Falls, Beaverton and Hillsboro mayors, Lakeview city manager, Multnomah County commissioners and members of the Pendleton Progress Board.

- **Established new stakeholder relationships through local economic development groups**, including membership on the Oregon Rural Development Council's Executive Committee, attendance at Business Oregon Economic Forums and collaboration with the Lake County Resource Initiative, Strategic Economic Development Corporation, Real Estate CEO Roundtables and Greater Portland Inc.
- **Engaged in community initiatives to expand customer participation**, including the Georgetown Energy Prize in Corvallis and Bend, Rogue Valley's Rogue Energy Initiative, Umpqua Climate Group, Solarize Wallowa County and Washington County Air Quality Group.

IT

- **Provided critical and ongoing support for all Energy Trust program delivery**, including Business Intelligence system for reporting and evaluation data, Customer Relationship Management systems, energy and incentive project tracking and accounting, and secure remote connectivity and functionality for internal and PMC staff.
- **Continued investment in foundational IT system improvements** to help anticipate program needs and reduce future costs, including:
    - **Conducted work to transition Energy Trust's measure and project tracking system** from FastTrack to the CRM system. Included new components developed by staff to support program management efficiency and customer service. Project completion expected in the first half of 2015.
    - **Upgraded to a new, easier-to-use version of CRM**, with capability to track new information about and relationships between customers and trade allies and support enhanced customer service.
    - **Migrated to a new reporting platform** using Microsoft Business Intelligence tools, improving Energy Trust's reporting capabilities and reducing ongoing licensing costs.
    - **Upgraded to new version of Microsoft Great Plains** financial software. Keeping up-to-date on software allows staff to maintain ongoing support for critical systems, as older versions are no longer supported.
    - **Upgraded to a new version of Microsoft SharePoint**, which serves as intranet for Energy Trust and also houses Energy Trust electronic record retention. The new version features an improved user interface and simplified functionality to facilitate employee workflows, save time and reduce employee training and support needs.
- **Developed a new web portal to give Existing Homes trade allies access** to real-time information about participant projects, allowing trade allies self-service options that reduce reliance on internal and PMC staff to provide information about project status and incentive payments. Pilot use with select trade allies began in 2014, with a full launch to approximately 300 trade allies expected in early 2015.
- **Launched a web-based data entry form allowing customers to apply for all Existing Homes incentives online**, eliminating the need for data entry, data validation and paper documentation. This improvement is expected to deliver savings of more than $200,000 annually.
- **Created and executed a protocol for use of sensitive utility data for marketing** efforts, ensuring data integrity and security through workflow documentation and maintenance of customer "do not contact" requests.

- **Processed 98,642 customer projects in Energy Trust systems**, including 64,758 submitted through web applications.
- **Responded to 5,095 help desk tickets submitted to IT** by internal and PMC staff.

Planning and evaluation

- **Created 286 new energy-efficiency measures and revised 1,277 measures in 2014.**
- **Completed and posted 29 evaluations and market studies** on the Energy Trust website.
- **Supported a regional business plan for NEEA gas market transformation efforts to launch in 2015**, and secured Energy Trust board approval for funding the 2015-2019 plan.
- **Provided analysis requested by the OPUC for incentive cap recommendation** to potentially allow limited incentives for certain non-cost-effective measures, proposed in the gas cost-effectiveness docket report.
- **Responded to NW Natural Integrated Resource Plan data requests related to efficiency**, including running a special scenario to determine if a delivery capacity expansion project in the Salem area could be deferred cost-effectively with additional targeted efficiency.

V 2014 PROGRESS TO OPUC PERFORMANCE MEASURES

Each year, 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 technologies change. Electric and gas efficiency performance targets are set at 85 percent of Energy Trust goals as defined in annual budgets. The following OPUC minimum performance measures apply to Energy Trust 2014 results.

Electric Efficiency Performance Targets in Portland General Electric Territory

- Electricity savings of at least 32.0 aMW
  Result: Exceeded, with 36.7 aMW saved in 2014
- Levelized life-cycle cost should not exceed 3.2 cents/kWh
  Result: Well within requirement, with 2014 average levelized life-cycle cost at 2.5 cents per kWh

Electric Efficiency Performance Targets in Pacific Power Territory

- Electricity savings of at least 17.1 aMW
  Result: Exceeded, with 21.3 aMW saved in 2014
- Levelized life-cycle cost should not exceed 3.7 cents/kWh
  Result: Well within requirement, with 2014 average levelized life-cycle cost at 2.7 cents per kWh

Natural Gas Efficiency Performance Targets in NW Natural Territory

- Natural gas efficiency savings of at least 4.53 million annual therms in 2014
  Result: Exceeded, with 5.24 million annual therms saved in 2014
- Average levelized life-cycle cost should not exceed 45.3 cents per therm
  Result: Well within requirement, with 2014 average levelized life-cycle cost at 32.6 cents per therm

Natural Gas Efficiency Performance Targets in Cascade Natural Gas Territory

- Natural gas efficiency savings of at least 0.40 million annual therms in 2014
  Result: Exceeded, with 0.42 million annual therms saved in 2014
- Average levelized life-cycle cost should not exceed 52 cents per therm
  Result: Well within requirement, with 2014 average levelized life-cycle cost at 38.9 cents per therm

Renewable Resource Development Targets

- For project and market development assistance, report annual results, including number of projects supported, milestones met and documentation of results from market and technology perspective
  Result: Full compliance, paid and committed $513,853 in project development assistance to 18 projects, including 11 hydropower, four geothermal, two biopower and one wind. Details on the results of the 2014 project development assistance are in Appendix 4.
- Obtain at least 0.70 aMW in installed generation of standard, net-metered projects, including solar and small wind
  Result: Exceeded, with 1.15 aMW of installed generation from standard solar projects.
- For non-solar custom projects, the three-year rolling average incentive is not to exceed $29 per allocated MWh

Result: Well within requirement, with a three-year rolling average incentive per allocated MWh for 2012-2014 of $15.24. Additional detail is in Appendix 4.

- For innovative and custom solar projects, report sources of funding for projects and selection criteria
  Result: Full compliance, dedicated funding to two solar projects in PGE territory. Funding came from a portion of the Solar program budget that had been allocated for a streamlined competitive process for larger projects and from an RFP for non-solar projects that had unallocated funds. Projects were selected based on incentive amount requested, ability to complete the project by the deadline specified and the quality of the project's business plan.

Financial Integrity

- Receive an unmodified financial opinion from an independent auditor on annual financial statements
  Result: Full compliance, with an unmodified financial audit opinion for 2014

Administrative and Program Support Costs

- Keep administrative and program support costs[11] below 9 percent of annual revenues
  Result: Well within requirement, with 2014 administrative and program support costs at 4.6 percent of annual revenues

Customer Satisfaction

- Demonstrate greater than 85 percent satisfaction rates for:
  1. Interaction with program representatives
  2. Overall satisfaction
- *Result: Achieved, with a 98 percent satisfaction rate for interaction with program representatives and a 96 percent overall satisfaction rate. Customer satisfaction rates were calculated from telephone surveys of participants soon after project completion. Results for major programs are averaged to determine satisfaction rates. See Appendix 2.*

Benefit/Cost Ratios

- Report benefit/cost ratios for larger conservation acquisition programs for both utility system and total resource perspective

2014 Utility Cost and Total Resource Cost by Program

Program	Combined Utility Cost Test benefit cost ratio	Combined Total Resource Cost Test benefit cost ratio
New Homes and Products	2.0	1.7
Existing Homes	2.0	2.5
Existing Buildings, including Multifamily	2.5	1.7
New Buildings	3.0	1.9
Production Efficiency	3.3	2.0

[11] Program delivery efficiency is defined as all program costs except the following direct program costs: program management, program delivery, program incentives, program payroll and related expenses, outsourced services, planning and evaluation services, customer service management and Trade Ally Network management.

VI REVENUE AND EXPENDITURES TABLES[12, 13]

A. Revenues

Source	Annual actual revenues	Annual budgeted revenues
Portland General Electric	$ 37,173,014	$ 34,223,172
PGE Incremental	$ 48,928,367	$ 51,072,562
Pacific Power	$ 27,253,456	$ 26,358,594
Pacific Power Incremental	$ 25,585,812	$ 26,047,016
Cascade Natural Gas	$ 2,455,200	$ 1,913,709
NW Natural	$ 17,880,127	$ 18,276,959
NW Natural Industrial DSM	$ 3,073,052	$ 3,773,634
Total	**$ 162,349,027**	**$ 161,665,646**

Incremental revenues are those authorized under SB 838 to support capturing additional cost-effective electric efficiency savings above the amount supported by funding through SB 1149

B. Expenditures

Type	Actual annual expenditures	Annual budgeted expenditures
Energy Efficiency Programs	$ 134,796,967	$ 152,000,378
Renewable Energy Programs	$ 13,094,590	$ 16,310,538
Administration	$ 5,098,190	$ 6,357,007
Total	**$ 152,989,746**	**$ 174,667,923**

Source	Actual annual expenditures	Annual budgeted expenditures
Portland General Electric	$ 81,072,821	$ 90,432,277
Pacific Power	$ 50,165,497	$ 56,816,779
Cascade Natural Gas	$ 1,956,561	$ 2,458,891
NW Natural	$ 16,946,502	$ 21,530,689
NW Natural Industrial DSM	$ 2,848,366	$ 3,429,288
Total	**$ 152,989,746**	**$ 174,667,923**

C. Incentives paid

	Energy efficiency				Renewable energy		Total
Quarter	PGE	Pacific Power	NW Natural	Cascade Natural Gas	PGE	Pacific Power	
Q1	$ 3,333,343	$ 1,744,478	$ 1,076,423	$ 85,089	$ 664,033	$ 261,721	$ 7,165,087
Q2	$ 8,016,188	$ 4,361,563	$ 2,353,929	$ 229,014	$ 1,112,130	$ 731,143	$ 16,803,966
Q3	$ 6,258,657	$ 3,923,119	$ 1,763,691	$ 189,920	$ 1,026,857	$ 1,711,530	$ 14,873,774
Q4	$ 22,607,035	$ 11,944,408	$ 5,291,019	$ 428,923	$ 2,635,322	$ 2,816,095	$ 45,722,803
Total	**$ 40,215,222**	**$ 21,973,568**	**$ 10,485,062**	**$ 932,946**	**$ 5,438,342**	**$ 5,520,489**	**$ 84,565,630**

[12] Columns may not total due to rounding.
[13] The gas expenditures do not include NW Natural in Washington. These results are reported in Appendix 8.

VII SAVINGS AND GENERATION TABLES[14, 15, 16]

A. Progress toward annual efficiency and generation goals

	Expenditures	Savings/ generation	Levelized cost	Energy Trust annual goal	
				Goal	% Achieved
Electric savings	$117,692,324	58.02 aMW	2.6 ¢	57.70 aMW	101%
Natural gas savings	$21,751,429	5,658,998 therms	33.1 ¢	5,802,048 therms	98%
Electric generation	$13,545,993	2.39 aMW	5.3 ¢	4.49 aMW	53%

B. Progress toward annual efficiency goals by utility

	Annual expenditures	Annual savings	Levelized cost	Energy Trust 2014 annual goal		Annual IRP target	
				Goal	% Achieved	Goal	% Achieved
Portland General Electric	$74,337,061	36.70 aMW	2.5 ¢ Per kWh	37.62 aMW	98%	36.34 aMW	101%
Pacific Power	$43,355,263	21.32 aMW	2.7 ¢ Per kWh	20.08 aMW	106%	18.98 aMW	112%
NW Natural	$19,794,868	5,238,485 therms	32.6 ¢ Per therm	5,331,487 therms	98%	5,331,487 therms	98%
Cascade Natural Gas	$1,956,561	420,513 therms	38.9 ¢ Per therm	470,561 therms	89%	470,561 therms	89%

C. Electric efficiency savings and expenditures

2014 electric efficiency savings	PGE aMW	Pacific Power aMW	Total Savings aMW	Expenses	Levelized cost/kWh
Commercial	14.16	7.73	21.89	$ 50,585,551	2.7 ¢
Industrial	12.17	6.47	18.64	$ 29,520,518	2.1 ¢
Residential	10.36	7.13	17.48	$ 37,586,255	2.9 ¢
Total electric efficiency programs	**36.70**	**21.32**	**58.02**	**$117,692,324**	**2.6 ¢**

[14] Columns may not total due to rounding.
[15] Electric savings also include transmission and distribution savings.
[16] The gas savings do not include results for NW Natural in Washington. These results are reported in Appendix 8.

D. Gas efficiency savings and expenditures

2014 gas efficiency savings	NW Natural therms	Cascade Natural Gas therms	Total savings therms	Expenses	Levelized cost/therm
Commercial	2,255,984	235,549	2,491,532	$ 7,473,075	29.8 ¢
Industrial	975,908	39,548	1,015,456	$ 2,462,545	23.5 ¢
Residential	2,006,593	145,416	2,152,009	$ 11,815,809	41.9 ¢
Total gas efficiency programs	**5,238,485**	**420,513**	**5,658,998**	**$ 21,751,429**	**33.1 ¢**

E. Renewable energy generation and expenditures

2014 renewable energy generation	PGE aMW	Pacific Power aMW	Total Generation aMW	Expenses	Levelized cost/kWh
Other Renewable program	0.00	1.24	1.24	$ 4,864,135	3.7 ¢
Solar Electric program	0.72	0.43	1.15	$ 8,681,858	7.0 ¢
Total renewable programs	**0.72**	**1.67**	**2.39**	**$ 13,545,993**	**5.3 ¢**

F. 2014 Energy efficiency savings and expenditures by program[17,18]

1. Total energy efficiency savings and expenditures

	Annual savings	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	58.0 aMW	57.7 aMW	101%	2.6 ¢ per kWh
Gas	5,658,998 therms	5,802,048 therms	98%	33 ¢ per therm

	Annual expenditures	Variance from annual budget	
Electric	$ 117,692,324	$ 12,570,569	9.7%
Gas	$ 21,751,429	$ 5,667,438	20.7%
Total	**$ 139,443,754**	**$ 18,238,007**	**11.6%**

2. Existing Buildings savings and expenditures

	Annual savings	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	15.4 aMW	15.9 aMW	97%	2.8 ¢ per kWh
Gas	1,815,593 therms	1,781,978 therms	102%	33 ¢ per therm

	Annual expenditures	Variance from annual budget	
Electric	$ 35,848,259	$ 7,701,263	17.7%
Gas	$ 5,763,469	$ 2,229,919	27.9%
Total	**$ 41,611,728**	**$ 9,931,182**	**19.3%**

[17] Levelized cost is Energy Trust's total cost to save or generate each unit of energy over the life of the measure (which ranges from two to 20 years or more).
[18] Variance is expressed in total dollars *below* budget or (total dollars) *above* budget.

3. New Buildings savings and expenditures

	Annual savings	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	5.3 aMW	5.0 aMW	105%	2.5 ¢ per kWh
Gas	675,940 therms	560,707 therms	121%	21 ¢ per therm

	Annual expenditures	Variance from annual budget	
Electric	$ 12,085,607	$ 1,281,033	9.6%
Gas	$ 1,629,155	$ (154,935)	-10.5%
Total	**$ 13,714,763**	**$ 1,126,098**	**7.6%**

4. Production Efficiency savings and expenditures

	Annual savings	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	18.5 aMW	17.5 aMW	106%	2.0 ¢ per kWh
Gas	1,015,456 therms	1,196,420 therms	85%	23 ¢ per therm

	Annual expenditures	Variance from annual budget	
Electric	$ 28,536,721	$ 2,285,244	7.4%
Gas	$ 2,462,545	$ 786,438	24.2%
Total	**$ 30,999,266**	**$ 3,071,683**	**9.0%**

5. Existing Homes savings and expenditures

	Annual savings	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	5.1 aMW	5.2 aMW	98%	3.1 ¢ per kWh
Gas	1,085,454 therms	1,223,707 therms	89%	55 ¢ per therm

	Annual expenditures	Variance from annual budget	
Electric	$ 13,464,824	$ 3,192,831	19.2%
Gas	$ 7,072,283	$ 2,574,133	26.7%
Total	**$ 20,537,107**	**$ 5,766,964**	**21.9%**

6. New Homes and Products savings and expenditures

	Annual savings	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	8.5 aMW	8.1 aMW	105%	3.5 ¢ per kWh
Gas	1,066,555 therms	1,039,236 therms	103%	30 ¢ per therm

Includes gas market transformation savings associated with the 2008 and 2011 residential code changes.

	Annual expenditures	Variance from annual budget	
Electric	$ 19,412,163	$ (2,349,664)	-13.8%
Gas	$ 4,663,075	$ 262,412	5.3%
Total	**$ 24,075,238**	**$ (2,087,252)**	**-9.5%**

7. Northwest Energy Efficiency Alliance savings and expenditures[19]

	Annual savings	Annual energy target	Percent achieved	Levelized cost
Commercial	1.3 aMW	1.0 aMW	122%	3.2 ¢ per kWh
Industrial	0.2 aMW	0.2 aMW	87%	9.0 ¢ per kWh
Residential	3.9 aMW	4.8 aMW	81%	1.7 ¢ per kWh
Total	**5.3 aMW**	**6.0 aMW**	**88%**	**2.2 ¢ per kWh**

	Annual expenditures	Variance from annual budget	
Commercial	$ 2,732,136	$ 142,034	4.9%
Industrial	$ 983,797	$ 462,576	32.0%
Residential	$ 4,789,719	$ (175,279)	-3.8%
Total	**$ 8,505,652**	**$ 429,332**	**4.8%**

G. 2014 Renewable energy generation and expenditures by program[20]

1. Total renewable energy generation and expenditures

	Annual generation	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	2.4 aMW	4.5 aMW	53%	5.3 ¢ per kWh

	Annual expenditures	Variance from annual budget	
Electric	$ 13,545,993	$ 3,440,170	20.3%

2. Solar generation and expenditures

	Annual generation	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	1.1 aMW	2.7 aMW	43%	7.0 ¢ per kWh

	Annual expenditures	Variance from annual budget	
Electric	$ 8,681,858	$ 1,659,456	16.0%

3. Other Renewables generation and expenditures

	Annual generation	Energy Trust annual goal	Percent achieved	Levelized cost
Electric	1.2 aMW	1.8 aMW	67%	3.7 ¢ per kWh

	Annual expenditures	Variance from annual budget	
Electric	$ 4,864,135	$ 1,780,714	26.8%

[19] For the first time in 2014, Energy Trust has allocated budget to NEEA for gas market transformation activities. While there were no associated savings in the year, savings are expected in subsequent years.
[20] Variance is expressed in total dollars *below* budget or (total dollars) *above* budget.

H. 2014 Electric efficiency results for SB 1149 and SB 838 funds

Energy Trust will complete an analysis of the allocation of 2014 savings and related costs to SB 1149 versus SB 838 funding sources, along with the summary of SB 838 expenditures by utility, in fall 2015. An addendum will be issued to the 2014 Annual Report with three SB 1149 and SB 838 tables:

1. 2014 SB 1149 savings and costs (total and by sector)
2. 2014 SB 838 savings and costs (total and by sector)
3. 2014 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 aMW annually).

See Appendix 10 for the 2014 electric efficiency results for SB 1149 and SB 838 funds. Information appended to the report October 15, 2015.

APPENDIX 1: GEOGRAPHIC DISTRIBUTION OF SITES SERVED

Energy Trust sites served by region in 2014

	Commercial sector	Industrial sector	Residential sector	Renewable energy sector	Total	Percent increase over sites served in 2013
Central Oregon	318	64	3,186	85	3,628	10%
Eastern Oregon	87	37	809	9	938	42%
North Coast	269	9	1,303	11	1,590	44%
Portland Metro & Hood River	3,440	351	42,726	829	47,017	15%
Southern Oregon	420	120	9,796	157	10,454	25%
Willamette Valley	851	241	14,174	210	15,389	22%
Total	**5,385**	**822**	**71,994**	**1,301**	**79,016**	**18%**

APPENDIX 2: 2014 CUSTOMER SERVICE AND SATISFACTION RESULTS

Call and email volumes

Energy Trust's call center received 26,607 calls in 2014, a 3 percent decrease from 27,413 calls in 2013. Call volumes have been decreasing since 2009 as Energy Trust released more online forms and enhanced web-based customer services, and customers increasingly contacted programs directly rather than through the main call center. During 2014, call center staff responded to 1,747 inquiries via info@energytrust.org, most from residential customers, an increase of 8 percent from the 1,612 inquiries in 2013.

Complaint report

Energy Trust received 23 level four customer complaints in 2014, an increase of five complaints compared to 2013. Complaints included contractor and Allied Technical Assistance Contractor participation concerns, contractor complaints about incentive changes and customer complaints about contractors that are not Energy Trust trade allies.

Website visits

Energy Trust's website, www.energytrust.org, received 904,733 visits in 2014, a 21 percent increase over the 745,244 website visits in 2013. Traffic continued to increase year-over-year across all online content, reflecting Energy Trust's increasing use of online applications and forms, email newsletters, online advertising and social media. Also in the past five years, Energy Trust observed increased online use in areas outside of the Portland metro area, with web traffic doubling or tripling in Canby, Pendleton, Roseburg and Salem. Traffic to the annual report website doubled in 2014 following efforts to engage customers.

Customer satisfaction

Energy Trust calculated customer satisfaction from short telephone surveys conducted with randomly selected participants soon after they completed projects. The survey asked participants about overall satisfaction with Energy Trust. Participants in the Existing Buildings, Production Efficiency and commercial Solar programs were also asked about satisfaction with program representatives.

In 2014, the average rate of overall satisfaction with Energy Trust was 96 percent, and the rate of satisfaction with Energy Trust program representatives was 98 percent.

New Buildings projects often involve numerous market actors (architects, engineers, developers and owners) at different project stages, so it is difficult to reach a project representative who is able to respond to questions about satisfaction. Satisfaction with the New Buildings program is obtained from interviews with program participants as part of annual program process evaluations. In the 2014 process evaluation, conducted in early 2015, 37 New Buildings project owners or representatives were surveyed about their overall program satisfaction and satisfaction with communications with program representatives. Of participants surveyed, 97 percent were satisfied with their overall program experience. Satisfaction with program representatives was 100 percent.

Table 1: 2014 overall satisfaction

	2014 overall satisfaction
Existing Buildings, including Multifamily	99%
New Homes and Products[21]	94%
Existing Homes	91%
New Buildings	97%
Production Efficiency	96%
Solar[22]	98%
Unweighted average	**96%**

Table 2: 2014 satisfaction with program representatives

	2014 satisfaction with program representatives
Existing Buildings, including multifamily	97%
New Buildings	100%
Production Efficiency	96%
Commercial Solar	4 of 4[23]
Unweighted average	**98%**

Note: Energy Trust's 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 energy reviews, some call the call center and others may not interact with a program representative. In general, commercial and industrial participants have more interaction with Energy Trust representatives.

[21] Only Products customers were surveyed. Energy Trust does not track purchasers of new homes.

[22] Customers that installed solar using a third party are not surveyed.

[23] Only commercial solar customers are surveyed about satisfaction with program representatives. Four commercial solar customers were surveyed due to low project volume in 2014.

APPENDIX 3: BENEFITS TO UTILITY CUSTOMERS FROM STAFFING ADJUSTMENTS

Each year, Energy Trust assesses staffing needs as part of its budget and action planning process. This assessment takes into account work that has been or can be eliminated and reduced through process efficiencies, positions that can be reassigned or changed to fulfill existing and new business needs, and benefits to utility customers associated with the work of proposed new positions.

In 2014, staffing priorities were driven by systems and web development needs, and expanded opportunities for outreach and marketing. As Energy Trust serves a more mature market, the organization is focused on serving smaller customers and harder-to-reach market segments. Staff are also managing costs by developing capabilities and systems to support targeted marketing and online transactions. The 5.5 full-time equivalent staff added in 2014 were devoted to these specific new focus areas.

In its comments on Energy Trust's Draft 2014 Annual Budget and 2015-2016 Action Plan, the Oregon Public Utility Commission requested Energy Trust include information in its 2014 Annual Report related to human resources changes made in 2014. Specifically, the OPUC asked for documentation of staff reassignments, workload reductions and benefits associated with new staff positions.

Table 1: Staff reassignments and associated benefits to utility customers

Changes to existing positions	Benefits
Finance Administrative Assistant modified to Human Resources Assistant	Timely recruitment and retention of highly skilled employees for Energy Trust program and operations management
Industrial Program Coordinator modified to Industrial Project Manager	Expanded Strategic Energy Management offerings for industrial and agricultural customers
Residential Program Coordinator modified to Residential Project Manager	Supported competitive selection process for New Homes and Products PMC, ensuring sustained value for ratepayers, and subsequent transition
Residential Project Manager modified to Senior Project Manager	Supported development of on-bill financing and EPS customer offerings, displacing these functions from a PMC at lower cost; streamlined coordination with utilities and financial institutions
Existing Buildings Senior Project Manager modified to Program Manager	Expanded program offerings and support for multifamily property owners and tenants, including MPower offer for affordable multifamily housing
Industrial Program Manager modified to Industrial Senior Program Manager	Program delivery management for more industrial customers through custom program offerings; continued accountability for program serving growing volume of customers
Trade Ally Coordinator modified to Trade Ally Operations Project Manager	Improved services for customers and contractors through development of online tools for contractor enrollment, complaint resolution management systems and improved systems and processes for trade ally contractor communications

Online and Interactive Communications Manager modified to Senior Web Manager	Increased management for systems development to support online customer and contractor transactions; planning for online customer services and digital strategies; more website enhancements to help reduce program delivery costs; website user experience leadership
Senior Business Systems Analyst modified to Business Intelligence Architect	Continued public accountability and increased operational efficiency through improved reporting systems to support growing complexity and volume of program activities

Workload reductions and associated benefits to utility customers

Energy Trust maintains a focus on continuous improvement of internal operations. However, overall workload has increased due to a higher volume of program transactions, a growing number of measures and evaluations needed to support diversification of program offerings, more utility coordination, expanded outreach and marketing to reach customers, and systems improvements.

The following are examples of process improvements accomplished in 2014 and their associated benefits for utility customers. In some cases these improvements enabled staff to speed processing, save on program management costs or provide better customer service. In other cases, staff resources were reallocated to other work.

Table 2: Workload reductions and associated benefits to utility customers

Improvement	Benefit
Evaluated incentive applications to make them easier and faster for customers and trade allies to complete, including removing serial numbers from residential Products applications	In 2013, serial numbers were missing in 28 percent of incomplete Products applications; the modified form improves the efficiency of delivering incentive checks and maintains appropriate controls to protect ratepayer dollars
Enhanced systems for Existing Homes incentive application processing, including automated notification for trade allies when a form is missing information, new instant incentives functionality and new web forms	Reduced data processing work, enhanced data accuracy
Began allowing select 3-star Existing Homes trade allies to offer instant incentives for some equipment, enabling customers to receive discounted equipment at time of purchase	Shifted the responsibility for submitting incentive applications from customers to trade allies, resulting in more complete applications, faster incentive processing and lower program delivery costs
Streamlined reporting data intake processes through development of consistent intake templates for program and operations staff systems	Reduced staff time spent on reporting work while maintaining high-quality reports

Transitioned to paperless Production Efficiency project files	Improved project processing times
Enabled Program Delivery Contractors to upload project forecasts electronically to Energy Trust systems	Reduced data processing work, enhanced data accuracy
Introduced an online platform that automatically uploads New Homes and Products information entered by verifiers in the field into Energy Trust systems for incentive processing	Reduced data processing work, enhanced data accuracy
Began using tablet devices in the field to automate uploading of Existing Buildings and Multifamily data	Reduced data processing work, enhanced data accuracy
Streamlined the New Buildings project review process by eliminating review for projects identified as having low risk of error	Enabled processing of 20 percent more projects in 2014 compared to 2013 without sacrificing data quality
Enhanced web incentive applications, enabled customers to apply for all Existing Homes incentives online	Reduced data processing work, enhanced data accuracy, provided faster incentive checks to customers

Table 3: Additional staff positions added and benefits to utility customers

Position Added	**Benefits to utility customers**
Web Project Manager (0.5 FTE)	Increased access to Energy Trust program information and incentives through enhanced newsletter and blog offerings, including launching two new commercial customer newsletters
Senior Project Manager (1.0 FTE)	Supported replacement of FastTrack with CRM to track new information about and relationships between customers and trade allies and support enhanced customer service
Southern Oregon Outreach Manager (1.0 FTE)	Connected Southern Oregon customers and trade allies with Energy Trust offerings; represented Energy Trust at regional and local events
Sr. Community Relations Manager (1.0 FTE)	Strengthened Energy Trust's ability to reach and serve customers statewide through relationships with local businesses and community leaders; increased awareness and identified strategies to increase participation and collaboration
Marketing Coordinator – Business Sectors (1.0 FTE)	Increased access to Energy Trust program information and incentives through development of two new commercial customer newsletters; supported marketing and public relations activities targeted to commercial and industrial customers
Marketing Coordinator – Residential Sector (1.0 FTE)	Supported customer tools and increased access to Energy Trust programs and incentives through development of the Energy Payback Estimator web tool and enhanced marketing and public relations activities

APPENDIX 4: RENEWABLE RESOURCE DEVELOPMENT TARGETS
Project development assistance activity in 2014

The primary goal of Energy Trust's project development assistance is to expand distributed renewable energy generation in Oregon by minimizing early stage development barriers. Funds for project development assistance in 2014 helped lower the costs of resource characterization through studies to support permit applications, scoping studies, early stage engineering and a comparison of electricity and transportation fuel as uses for biogas.

By providing project development assistance, the renewable energy sector is able to help build a pipeline of projects that are moving through the steps of development and are able to apply for installation incentives, expand understanding of the market for various renewable energy technologies, and meet a need in the renewable industry for early stage project support that will help secure longer-term financing.

A. 2014 project development assistance results

In 2014 Energy Trust supported 18 projects with project development assistance. The organization committed a total of $513,853 for a range of development assistance to biopower, hydropower, geothermal and wind technologies (see Tables 1, 2 and 3).

Projects completing project development assistance activities in 2014

Of the 18 projects in progress in 2014, 12 completed the development assistance activities in 2014 and received a total of $151,152. These projects included eight hydropower projects, two geothermal projects and two biopower projects. Two of the projects receiving support were in PGE service territory and 10 were in Pacific Power territory.

Table 1: Results for completed development assistance for hydropower projects

Project	Development assistance	Outcome	Utility	Incentive
Four innovative low-head hydropower projects in two irrigation districts	Design and permitting assistance	• Completed some preliminary civil design work for all four projects • Project team decided to defer additional project development activities while completing construction of another project	Pacific Power	$2,052 each for three projects; $138 for the fourth
Hydropower project at a residential net-metered site	Scoping study	• Determined that the resource is too small for a project to make financial sense for the property owner	Pacific Power	$500
Turbine near the site of an existing project at a small ranch	Permitting and engineering assistance	• Assisted with a water rights application, mapping and some preliminary engineering • Prepared the property owner to apply for a project installation incentive in late 2015 or 2016	Pacific Power	$1,860

Irrigation district	Mediation assessment report	• Prepared a mediation assessment for an irrigation district working on a project that involves replacing a canal with a buried pipe to increase generation at its existing hydropower facility • A group of landowners that live adjacent to the canal have pursued land-use proceedings to block the project • The report characterized readiness to mediate and whether mediation would be helpful	Pacific Power	$6,416
Micro-hydropower project at a residential property	Scoping-level feasibility study	• Determined that the project is not viable because of environmental issues that would lead to high permitting costs	PGE	$1,000

Table 2: Results for completed development assistance for geothermal projects

Project	Development assistance	Outcome	Utility	Incentive
Geothermal project	Initial resource characterization, including gathering temperature and flow data from existing wells, analysis of soil chemistry information and seismic testing	• Produced a set of two- and three-dimensional images of the faults at 5,000-foot depth, characterized the type of rock in the area and suggested two potential sites for drilling • The work provided the site owner with initial information that would be helpful in seeking a professional developer partner • The site owner is considering options for moving forward	Pacific Power	$75,000
Geothermal project	Resource characterization to determine if there is enough potential to warrant more extensive feasibility and analysis	• Completed temperature recording at an existing well on two separate occasions; testing indicated temperatures too low to support geothermal electricity production • Plans for an economic feasibility report were cancelled because of the low temperatures	Pacific Power	$6,644

Table 3: Results for completed development assistance for biopower projects

Project	Development assistance	Outcome	Utility	Incentive
Co-generation project using biogas at a wastewater treatment plant	Feasibility analysis	• Found that the project does not meet the city's financial requirements primarily due to the limited amount of biogas currently produced by the plant	Pacific Power	$45,971
Wastewater treatment plant examining options for using its biogas	Study comparing the financial advantages and disadvantages of using biogas for electricity production vs. production of transportation fuel	• Determined that using the gas for transportation fuel appeared to be the better financial option, but carried more risks including finding enough purchasers of the fuel and managing transaction costs • The facility is re-examining the study because of recent decreases in gasoline prices	PGE	$7,468

New development assistance commitments in 2014

Six projects began development assistance activities in 2014 that will complete in 2015 or later. Technologies represented by these contracts included three hydropower projects, two geothermal projects and one wind project. Total funds committed to these new projects was $362,700.

Table 4: New development assistance commitments in 2014 for hydropower projects

Project	Development assistance	Outcome	Utility	Incentive
Hydropower project	Feasibility report including measurement of head loss through a dam, equipment recommendations and financial modeling	• Initial work shows project has potential, but more study is needed • The next step is a fish study that will include input from a natural resource agency • If the project looks viable after the additional study, the developer may pursue the necessary steps to permit and license the project, a process that will likely last up to five years	PGE	$26,489
City-owned, small hydropower project	Feasibility work	• Work included a site visit, review of mapping, water rights research and financial analysis	Pacific Power	$20,960

		• Analysis showed a variety of project pathways • The next steps are for the city to review options and work with stakeholders to determine whether additional study is needed before a decision about pursuing a project can be made		
Hydropower project	Surveying related to establishment of a wilderness boundary; environmental studies	• Survey was completed and accepted by the U.S. Forest Service • The next steps include completing and submitting environmental studies to agencies as part of the permitting process	Pacific Power	$30,025

Table 5: New development assistance commitments in 2014 for geothermal projects

Project	Development assistance	Outcome	Utility	Incentive
Geothermal project	Initial resource characterization and feasibility analysis	• Seismic data collection that helps characterize the area's fault structure is complete; site surveying is partially complete • Results indicate that the site shows promise for a project • The next steps are to complete site-surveying and move forward with engineering for a well permit, full feasibility study, flow-testing and interconnection studies	Pacific Power	$164,466
Geothermal project	Initial resource characterization and feasibility analysis	• Seismic data collection is complete • The next steps are to complete a site survey and move forward with engineering for a well permit	PGE	$112,874

Table 6: New development assistance commitments in 2014 for wind projects

Project	Development assistance	Outcome	Utility	Incentive
10-MW community-scale wind project	Assistance with professional services to support signing a power purchase agreement	• Legal consultation and advice related to the review and drafting of the power purchase agreement, meteorological services related to estimating the wind resource and engineering consulting • Project is in the process of securing financing	Pacific Power	$7,887

B. Barriers to project development

Energy Trust's project development assistance is designed to address the main barriers to renewable energy project development. Those barriers in 2014 remained similar to those in 2013. Helping projects overcome these barriers builds a pipeline of projects that can apply for incentives, complete construction and generate renewable energy.

- **It is difficult to find capital to support early stage work.**
  The most risky time to invest money in a renewable energy project is at the beginning. Investors are reluctant to put funds into a project with unclear potential. Without early stage funding, a project cannot advance to the point where the risk is reduced. By providing early stage funds, Energy Trust builds a pipeline and helps move projects forward, enabling them to attract additional financing and eventually construct a project. In addition, Energy Trust's support demonstrates confidence that can help projects successfully secure other sources of funds. In some cases, projects at this early stage learn they are not feasible. Energy Trust helps project owners reach that point with limited exposure.

- **Less sophisticated developers whose primary business is not energy encounter difficulties navigating the stages of developing a project.**
  Energy Trust works with many project developers that are not professional developers. Moving through the steps of resource characterization, feasibility, permitting and interconnection can be lengthy and difficult. Project development assistance—both financial and technical—helps developers navigate these steps in less time and for less cost, and learn industry best practices and how to avoid mistakes.

- **Market conditions for distributed renewable generation in Oregon continue to be challenging.**
  At all stages of the development process, project owners face poor market fundamentals, including low avoided cost rates and diminished state and federal incentives. Project development assistance is a tool to continue to attract investment in projects in Oregon, and to maintain development capacity in the state.

Table 7: Non-solar project cost and generation

Project name	QF vs NM	Date operational	MWh per year	Contract term in years	Energy Trust allocated MWh (total MWh)	REC % to Energy Trust	Energy Trust incentive	Total RECs	$/REC
Revolution Energy Solutions Oak Lea Dairy (biopower)	QF	2012	1,500	15	22,500	60	$441,660	13,500	$32.72
Klamath Irrigation C-Drop (hydropower)	QF	2012	3,494	20	69,881	84	$490,000	58,700	$8.35
City of Portland Vernon (hydropower)	QF	2012	115	20	2,300	50	$65,000	1,150	$56.52
City of Medford (biopower)	NM	2012	4,820	20	96,400	50	$450,000	48,200	$9.34
City of Pendleton (biopower)	NM	2012	1,383	25	34,583	24	$450,000	8,300	$54.22
Wallowa Resources Integrated Biomass Energy Campus (biopower)	QF	2012	700	15	10,500	55	$70,000	5,775	$12.12
Revolution Energy Solutions Forest Glen Oaks Dairy (biopower)	QF	2012	2,800	15	42,000	60	$441,660	25,200	$17.53
Farmers Irrigation District Low Line Canal (hydropower)	QF	2012	119	20	2,380	100	$95,000	2,380	$39.92
Farm Power Misty Meadows dairy (biopower)	QF	2013	5,400	15	81,000	65	$1,000,000	52,650	$18.99
JC-Biomethane (biopower)	QF	2013	12,000	20	240,000	56	$2,000,000	134,400	$14.88
Three Sisters Irrigation District Main Canal (hydropower)	QF	2014	3,100	20	62,000	69	$1,000,000	42,780	$23.38
Confederated Tribes of the Umatilla Indian Reservation (small-scale wind)	NM	2014	158	15	2,365	60	$170,992	1,419	$120.50
Oregon Tech Phase 2 (geothermal)	NM	2014	7,645	20	152,905	95	$1,550,000	145,260	$10.67
Total							$8,224,312	539,714	**$15.24**

Note: QF stands for qualifying facility; NM stands for net metered; REC stands for renewable energy certificate

APPENDIX 5: NW NATURAL INDUSTRIAL DEMAND-SIDE MANAGEMENT ACTIVITIES

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 2014 are included in the body of this annual report as a portion of NW Natural savings and reported separately below.

Program/customer type	2014 annual therms saved	2014 expenditures	2014 levelized cost / therm
Production Efficiency	684,480	$ 1,537,121	20.8 ¢
Existing Buildings	491,821	$ 1,089,953	27.5 ¢
New Buildings	114,867	$ 221,293	16.0 ¢
Total	**1,291,168**	**$ 2,848,366**	**22.1 ¢**

APPENDIX 6: ENERGY TRUST PROGRAM DESCRIPTIONS

Existing Buildings. Energy Trust Existing Buildings offers technical assistance and cash incentives for installation of qualified energy-efficient equipment to help commercial businesses of all types and sizes reduce energy use and lower operating costs. Existing Buildings offers incentives for improvements including lighting, HVAC, foodservice or insulation, as well as customized solutions and operations and maintenance improvements. Existing Buildings' technical staff helps customers identify and evaluate energy-saving opportunities with technical energy studies, contractor referrals and other technical services. Portions of the program are offered to NW Natural customers in Washington. Existing Buildings began in 2003 and was implemented in 2014 by Program Management Contractor ICF International with additional technical services for Strategic Energy Management provided by SEG, Triple Point and Enernoc.

Multifamily. Multifamily services all existing multifamily structures with two or more units, including affordable housing facilities, assisted living facilities, condos and townhomes, campus living and market rate apartments. 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 installation of energy-efficient 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 systems. Multifamily moved to the commercial sector in 2010 and was implemented in 2014 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 building types. Participants can leverage a comprehensive set of services and incentives, such as early design and energy modeling assistance, a wide array of standard and customized equipment incentives, including modeled savings incentives for whole-building approaches and incentives for integrating solar designs. Since late 2012, the market solutions offering helps small businesses under 70,000 square feet achieve deeper energy savings through standard tiered incentives packages for restaurants, groceries, multifamily buildings, office buildings, schools and retail buildings. 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. Post construction, Energy Trust can help cover costs of earning ENERGY STAR® certification. New Buildings began in 2003 and was implemented in 2014 by CLEAResult Consulting, Inc, formerly 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 efficiency projects and practices. Energy Trust engages highly skilled industrial energy experts to advise Oregon businesses on reducing 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.

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, heating equipment and water heaters. Existing Homes offers specialized services including free weatherization services for manufactured homes, increased cash incentives and on-bill financing for moderate-income homeowners through Savings Within Reach, market-based Home Performance with ENERGY STAR® and diagnostic-based whole-home retrofit projects conducted by Building Performance Institute-certified contractors offered through Clean Energy Works. The program

offers a web-based Home Energy Profile and phone-based support for customers. Customized Energy Saver Kits with no-cost energy-energy light bulbs and water savings devices may be ordered online, and LivingWise Kits are distributed through schools. The program leverages market actors, including distributors, retailers and community partners, to drive savings throughout the state. The program is testing behavior change strategies through a pilot sending quarterly Personal Energy Reports to a sample of customers. Portions of the program are offered to NW Natural customers in Washington. Existing Homes has been offered since 2003 and was implemented in 2014 by CLEAResult Consulting, Inc.

New Homes and Products. New Homes seeks to expand the market share of energy-efficient homes in Oregon by creating homebuyer demand and training contractors. Energy Trust provides qualified homes with EPS™, an energy performance score used to assess the energy consumption and carbon emissions of a home. New Homes provides builders with performance-based incentives tied to increased energy-efficiency, as well as incentives for integrating solar into new homes. In addition to builders, the program works with subcontractors and real estate professionals, and encourages the sale of energy-efficient manufactured homes by local retailers. The program offers cash incentives for purchase of ENERGY STAR-qualified clothes washers, refrigerators, freezers, lighting and showerheads, and for recycling old refrigerators and freezers. The program also 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 was implemented in 2014 by Portland Energy Conservation, Inc and Ecova.

Solar Electric. The program helps homeowners, businesses and public agencies 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 envisions solar as a significant part of Oregon's energy mix and makes strategic investments in projects, infrastructure and ` local industry that will give rise to a healthy, stable market for solar in the long-term. The Solar program began in 2003 and is managed internally.

Other Renewables. The program provides support for renewable energy projects that generate electricity using biopower, wind, hydropower and geothermal technologies. The goal of the program is to expand Energy Trust's renewable energy portfolio across a range of technologies and to improve market conditions. The program provides custom incentives for projects with generating capacities of up to 20 MW. The program provides incentives for Project Development Assistance, which can include incentives to pay a portion of the costs of feasibility studies, technical assistance or other activities to help projects move from concept to construction. Project installation incentives are calculated on a custom basis during a thorough technical and financial review of a project's application. All incentives are paid upon successful project installation or activity completion. 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 2014, Margie Harris, Energy Trust executive director, served as board secretary of the NEEA Board of Directors, member of the executive committee, executive director review committee and strategic planning committee. 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.

APPENDIX 7: 2014 ENERGY TRUST BOARD OF DIRECTORS; BOARD DEVELOPMENT GUIDELINES; 2014 ADVISORY COUNCIL MEMBERS AND MEETINGS

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, she served as senior economist for the Northwest Power and Conservation 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. *Debbie has served as president since February 2014.*

VICE PRESIDENT—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, he 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 his 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. *Ken has served as vice president since February 2014.*

SECRETARY—Alan Meyer, Salem, recently retired as director of energy management for Weyerhaeuser Company, a diversified forest products manufacturing company. In that role, he was 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 previously served 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. *Alan has served as secretary since February 2013.*

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, he holds two patents. *Dan has served as treasurer since November 2012.*

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, he 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 and Conservation 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 resigned from the board in October 2014.*

Susan Brodahl, Portland, is a vice president in the Portland office of Heffernan Insurance Brokers as well as an owner of Heffernan Group. Heffernan Group has more than 400 employees, and is ranked in the top tier of all privately held brokerages in the country. Susan believes in a creative approach to insurance using a risk funding model. Her philosophy is "clients for life." Susan is a frequent featured speaker at regional and national conventions as well as published in various trade and mainstream journals. She has been awarded the Lifetime Achievement Award from the Painting and Decorating Contractors of America, and has an economics degree from Willamette University. *Susan was elected to the board in February 2014.*

Melissa Cribbins, Coos Bay, is a Coos County commissioner and an attorney. Prior to her election in 2012, she worked for the Coquille Indian Tribe as in-house counsel for six years. Before Melissa became an attorney, she worked for the City of Spokane and Eugene Water and Electric Board in the field of water quality. She is a member of the Oregon State Bar and the Washington State Bar, and is active in many organizations both in Coos County and statewide. Melissa is a graduate of Portland State University and Gonzaga University. *Melissa was elected to the board in February 2014.*

Heather Beusse Eberhardt, Portland, is a six-year veteran in the renewable energy field. She is the director of Technology Evaluation and Implementation-Solar at EDF Renewable Energy in Portland, where she previously served as structured finance manager and project finance manager. Prior to her roles at EDF, Heather acted as director of Partnership Development at GLOBIO and worked at Intel in Corporate Finance where she led the Intel Employee Sustainability Network. Heather currently serves on the board of Burke E. Porter Machinery and volunteers as a member of Social Venture Partners. Her efforts outside of renewable energy have included education as a middle school math instructor for Teach For America. Heather graduated from Colby College with a degree in Economics and has a Masters of International Management from Thunderbird School of Global Management. *Heather was elected to the board in December 2014.*

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.

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.

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. She 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.

Kenneth Mitchell-Phillips, Multnomah County, is an attorney and president of Easy Legal Northwest, Inc., which specializes in providing high quality, personalized and low-cost legal services throughout Oregon and Washington. He recently served as general counsel, vice president of human resources and chief compliance officer and corporate secretary at Portland-based NxSystems, Inc. NxSystems is a provider of global electronic payment solutions with offices in Canada, Ireland and the U.K. Prior to joining NxSystems, he specialized in corporate law as an associate attorney at Davis Wright Tremaine LLP. He also established Mitchell-Phillips Law, P.C. where he provided legal services to businesses throughout the Pacific Northwest. In addition to practicing law, he teaches business law courses at Portland Community College and has served as a member of the Oregon State Bar Board of Governors. He received a J.D. from Lewis and Clark Law School in 2006, a Master of Science degree in Business from Troy State University in 1996 and a Bachelor of Arts degree in English from University of Maryland Eastern Shore in 1991. He is currently admitted to the Oregon State Bar and the United States District Court for the District of Oregon. His Washington State Bar license is pending. *Kenneth resigned from the board in July 2014.*

Edmund Patrick Sherman, Portland, is a principal with Against the Current Consulting Group and works with clients interested in improving the quality of life in Native American communities. Eddie is a member of the Navajo and Omaha Nations and grew up on the Navajo Nation Reservation. In Navajo tradition, it is customary to identify someone's clan upon introduction: *Ya'at'eeh, Shi ei Eddie Sherman. Nat'oh Dine'e Tachii'nii nishlii doo [Tapa] Omaha Deer Clan ei bashishchiin. Bit'ahnii'nii ei dashicheii, nana [Tapa] Omaha Deer Clan ei dashinali. Todineeshzhee'dee ei naasha.* This translates to: Hello, my name is Eddie Sherman. I am Tobacco People, born for the [Tapa] Omaha Deer Clan. My maternal Grandfather's clan is Folded Arms people and my paternal Grandfather's clan is [Tapa] Omaha Deer Clan. I am from Kayenta, AZ.

Prior to Against the Current Consulting Group, he was the communications and development manager for ONABEN, a nonprofit founded by four Oregon tribes to encourage private sector development on reservations. He currently serves on the board of the Native American Youth and Family Center, NAYA, co-chairs the Steering Committee for JustPortland and served on the Portland Human Rights Commission. Eddie received his bachelor's degree in International Political Economy from Colorado College. *Eddie was elected to the board in November 2014.*

Dave Slavensky, Bend, is the Operations Manager at EarthCruiser USA, building adventure vehicles to travel the globe. Prior to joining EarthCruiser, he was chief operating officer for Structus Building Technologies, a Bend manufacturing company specializing in construction products. He has 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 he 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. He 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.

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

Lisa Schwartz, Salem, 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. *Lisa left the Oregon Department of Energy in May 2014.*

Warren Cook, Salem, is the manager of Energy Efficiency and Conservation at the Oregon Department of Energy. In this role, Warren develops and implements programs and services for the public sector, schools, and industrial and agricultural facilities. With more than 30 years of experience in energy efficiency, Warren has worked in residential and commercial program design and development, and provided technical training to trade allies and technical schools. Warren started his career as a weatherization contractor in eastern Washington during the initial launch of energy-efficiency programs in the region. As a U.S. Department of Energy trained Residential Conservation Service auditor and trainer, he performed more than 2,000 residential audits and developed early software for energy retrofit assessments. Warren supported the development of the Northwest Energy Code and Washington State Energy Code. He is a corresponding member of the Northwest Power and Conservation Council's Regional Technical Forum, an Associate at the American Society of Heating, Refrigerating and Air-Conditioning Engineers, and holds certification in Information Technology from Willamette University. *Warren began serving on the board in May 2014.*

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 2014 board included voting members with background in business (agriculture, industry/ manufacturing, construction/remodeling, restaurant), private consulting, nonprofit and higher education. Members come from Bend, Coos Bay, Eugene, Medford, Myrtle Creek, Salem and the Portland area. Of the 13 voting members at the end of the year, five 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. Lisa Schwartz, Oregon Department of Energy director, occupied this "special advisor" position through April 2014. Warren Cook, Oregon Department of Energy energy conservation manager, occupied this "special advisor" position beginning in May 2014.

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 attend advisory councils and participate on 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.

2014 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
Warren Cook, Oregon Department of Energy
Bruce Dobbs, Building Owners and Managers Association
Joe Esmonde, International Brotherhood of Electrical Workers
Wendy Gerlitz, Northwest Energy Coalition
Charlie Grist, NW Power and Conservation Council
Garrett Harris, Portland General Electric
Karen Horkitz, Northwest Energy Efficiency Alliance
Scott Inman, Oregon Remodelers Association
Andria Jacob, City of Portland Bureau of Planning and Sustainability
Juliet Johnson, Oregon Public Utility Commission
Don Jones, Jr., PacifiCorp
Don MacOdrum, Home Performance Guild of Oregon
Holly Meyer, NW Natural
Stan Price, Northwest Energy Efficiency Council

2014 Meeting Dates	Major Discussion Topics
February 5	2013 preliminary annual results; deemed savings calculator; initial discussion of draft 2015-2019 Strategic Plan
March 12	Northwest Energy Efficiency Alliance; electric avoided costs; gas cost-effectiveness docket, UM 1622
April 23	2013 results and sector trends; preview of draft 2015-2019 Strategic Plan; SB 838 funding limitations for large customers; residential windows market study; gas cost-effectiveness docket, UM 1622
June 18	Pilots and initiatives; 2013 economic impacts report; resource assessment study

July 23	Results through quarter two; 2015 budget concepts; SB 838 funding limitations for large customers; presentation of board-approved draft 2015-2019 Strategic Plan; market study for hearths; residential HVAC market study
September 3	Commercial lighting strategy for 2015; 2015 measure and incentive changes; 2014 true up report
October 22	Results through quarter three; 2015 annual budget and two-year action plan; 2015 measure and incentive changes
November 19	Final proposed 2015 annual budget and two-year action plan; SB 838 funding limitations for large customers

Renewable Energy Advisory Council

Diane Broad, Oregon Department of Energy
Jason Busch, Oregon Wave Energy Trust
Kari Greer, Pacific Power
Robert Grott, Northwest Environmental Business Council
Cindy Dolezel, Oregon Public Utility Commission
Suzanne Leta-Liou, Atkins
Matt Mylet, One Pacific Coast Bank
Michael O'Brien, Renewable Northwest
Elizabeth McNannay, Oregon Solar Energy Industry Association
Frank Vignola, Solar Monitoring, University of Oregon
Dick Wanderscheid, Bonneville Environmental Foundation
Peter Weisberg, The Climate Trust

2014 Meeting Dates	Major Discussion Topics
February 5	2013 preliminary annual results; 2014 plans by technology; draft 2015-2019 Strategic Plan
March 12	Draft 2015-2019 Strategic Plan
April 23	Draft 2015-2019 Strategic Plan; MapDwell: Solar System™ solar mapping tool; Solar request for proposals; 2013 Project Development Assistance results
July 23	Results through quarter two; draft 2015-2019 Strategic Plan; Solar competitive solicitation for large projects; Old Mill Solar project
September 3	2015 budget concepts; hydropower strategic plan
October 22	Results through quarter three; 2015 annual budget and two-year action plan; EPA 111d
November 19	2015 annual budget and two-year action plan; solar competitive solicitation project proposal; solar strategic plan

APPENDIX 8: ENERGY TRUST 2014 ANNUAL REPORT ON ACTIVITIES FOR NW NATURAL IN WASHINGTON

I INTRODUCTION, BACKGROUND, OVERSIGHT AND GOALS

A. Introduction

This report covers 2014, the fifth full year that Energy Trust of Oregon provided services and incentives to residential and commercial customers of NW Natural in Washington.

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 and 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 2014. This report presents Energy Trust's performance against those goals.

II. ANNUAL REPORT HIGHLIGHTS

A. Summary

- **Gas efficiency measures installed in 2014** by NW Natural's Washington customers saved 253,988 annual therms of natural gas—including 152,676 annual therms in Existing Buildings, 45,200 annual therms in Existing Homes and 56,112 annual therms in New Homes.
- **Total 2014 savings were approximately 115 percent of the 2014 conservative goal** of 220,868 therms and 98 percent of the 2014 stretch goal of 259,845 therms, as detailed in NW Natural's 2014 Energy Efficiency Plan.
- **In total, savings achieved in 2014 were 15 percent higher than 2013 savings, due to strong results across programs**. Engagement with restaurants to promote energy-efficient foodservice equipment bolstered Existing Buildings savings. The Existing Homes program also contributed savings from promotions of furnaces and gas hearths. The rebounding construction market contributed to an increase in New Homes savings.
- **The program spent less than budgeted**, largely due to achieving lower-cost savings than expected in the Existing Buildings program.

B. Washington Utilities and Transportation Commission performance metrics

The table below compares 2014 annual results to 2014 goals, as established in NW Natural's Energy Efficiency Plan for Washington (updated December 2013).

2014 results compared to goals

Metrics	Goal	2014 total	Q1 Results	Q2 Results	Q3 Results	Q4 Results
Therms Saved	220,868 - 259,845	253,988	34,786	31,534	36,600	151,069
Total Program Costs	$1,298,699 – $1,527,881	$1,310,180	$214,349	$230,116	$291,301	$574,415
Average Levelized Cost Per Measure	Less than $0.65	$0.42	$0.527	$0.577	$0.673	$0.311
Dollars Spent Per Therm Saved	Less than $6.50	$5.16	$6.16	$7.30	$7.96	$3.80
Total Resource Cost and Utility Costs at Portfolio Level	Greater than 1.0	1.5 and 1.1	Reported annually	Reported annually	Reported annually	Reported annually

2014 Utility Cost and Total Resource Cost benefit cost ratios by program

Program	Utility Cost Test benefit cost ratio	Total Resource Cost Test Benefit cost ratio
Existing Buildings	1.5	1.5
Existing Homes	0.8	1.0
New Homes	0.9	1.8
Total NW Natural Washington portfolio	**1.1**	**1.5**

2014 Total Utility Cost and Total Resource Cost benefit cost ratios

Program	Utility Cost Test benefit cost ratio	Total Resource Cost Test Benefit cost ratio
NW Natural Washington Portfolio	1.1	1.5
NW Natural Washington Low Income	0.7	0.5
Total	**1.1**	**1.4**

C. Commercial sector highlights

Existing Buildings

- **Existing Buildings saved 152,676 annual therms, 2 percent over the stretch goal** of 150,000 annual therms in 2014.
- **In 2014, Existing Buildings saw strong savings from more than 1,000 efficient showerheads delivered to assisted living facilities**, saving 15,000 annual therms and leading to larger custom projects with these facilities. Energy-saving showerheads are left with facility managers when performing energy-efficiency assessments, enabling the program to engage with facility owners to discuss other efficiency opportunities and potential future projects.
- **A small number of custom studies contributed considerable savings in 2014**, with approximately one-half of all Existing Buildings savings derived from custom projects. Nine custom projects completed in 2014, saving 72,607 annual therms of natural gas.
- **Bonus incentives for boilers, insulation, custom projects and foodservice equipment** supported savings at year-end. Foodservice equipment installed in restaurants provided substantial savings.
- **Existing Buildings created an outreach team to target small- to medium-sized businesses** in Washington, resulting in increased savings from these businesses.
- **Existing Buildings coordinated with Clark Public Utilities** to ensure customers, contractors and stakeholders were informed of all available energy-saving offerings.
- **The program launched a marketing campaign** promoting Existing Buildings as a technical resource for large and small businesses. The campaign promoted availability of support resources through various channels including walk-through audits, website content and Trade Ally Network expertise.
- **The program developed new gas measures to be added in 2015** for multifamily customers and greenhouses.

D. Residential sector highlights

- **The residential sector saved 101,312 annual therms** in 2014, 15 percent more than savings achieved in 2013.

Existing Homes

- **Existing Homes saved 45,200 annual therms, 7 percent below the conservative goal** of 48,607 annual therms in 2014.
- **Successful promotions of heating systems, water heating systems and weatherization** upgrades provided long-term energy savings for Washington customers.
- **Spring and fall bonuses for gas fireplaces and furnaces bolstered installations** in 2014, with 58 percent more gas fireplaces and 15 percent more gas furnaces installed in 2014 than in 2013. The fall gas fireplace bonus was extended through early 2015 and expanded to include higher-tier gas fireplaces with annual fuel utilization efficiency of 95 percent or more.
- **The program instituted incentives for sales staff at Vancouver-area distributors** to increase gas furnace sales.

- **Instant incentives were paid directly to contractors** for water heating and HVAC equipment, enabling customers to receive discounted equipment at time of purchase. This changed shifted the responsibility for submitting incentive applications from customers to trade allies, resulting in a higher rate of completed and qualifying applications, expediting incentive processing and reducing program delivery costs per unit.
- **Existing Homes continued to provide instant rebates for energy-efficient showerheads** and clothes washers purchased in stores, in collaboration with Clark Public Utilities and Simple Steps Smart Savings™. Instant rebates reduce upfront costs for customers and support a positive customer experience.
- **Existing Homes provided energy- and water-saving products to families** at Clark County food banks during the holiday season, in collaboration with Clark Public Utilities.
- **Existing Homes developed an on-bill repayment financing offering** to launch in January 2015, in collaboration with NW Natural and Craft3.

New Homes

- **New Homes saved 56,112 annual therms, 7 percent more than the stretch goal** of 52,660 annual therms in 2014.
- **The program provided consultation and outreach to help builders** incorporate new Washington State energy code requirements in building designs.
- **To allow builders to receive incentives for energy-efficient new homes** that do not receive ENERGY STAR® New Home Certification, New Homes designed an alternate method for builders to achieve incentives by building Earth Advantage®-certified homes.
- **The program helped verifiers and builders transition** from the prescriptive Builder Option Package, BOP, path for achieving ENERGY STAR New Home Certification to the new modeled performance path methodology for achieving ENERGY STAR New Home Certification. A total of 75 projects were submitted and received incentives using the new modeled performance path methodology, representing 30 percent of all New Homes projects.
- **The program evaluated the potential for gas fireplace incentives** to influence builders to install more efficient models in new homes. Final data will influence 2015 program strategies.

E. Trade Ally Network highlights

- **By year-end, 175 trade allies served Washington,** including 74 based in Washington. Energy Trust enrolled 35 new trade allies serving Washington in 2014. Though the pool is smaller in 2014, the network is a stronger resource for customers as they can easily find more engaged and active trade allies.
- **Networking events exclusively for Washington trade allies** were held for Existing Buildings trade allies in April and for Existing Homes and Existing Buildings trade allies in November. Attendance and engagement at these networking events continued to grow in 2014.

III. ANNUAL RESULTS

A. Activity highlights—sites served

	Q1	Q2	Q3	Q4	Total
Existing Commercial					
School/college retrofits	4	2	2	7	**15**
Other commercial retrofits	4	8	7	31	**50**
Studies	4	1	2	1	**8**
Existing Homes					
Weatherization (insulation, air and duct sealing and windows)	19	32	35	66	**152**
Gas hearths	26	32	12	66	**136**
Gas furnaces	32	67	28	85	**212**
Water heaters	4	5	10	8	**27**
Home Energy Reviews	16	9	3	5	**33**
New Homes					
Builder Option Packages	37	38	23	154	**252**
Clothes washers	83	179	141	250	**653**

B. Revenues

Source	Actual annual revenue	Budgeted annual revenue
NW Natural	$ 1,054,355	$ 1,291,102

C. Expenditures

		Actual annual expenditures	Budgeted annual expenditures	Variance
Commercial programs	Existing Buildings	$ 528,358	$ 660,829	$ 132,471
	Subtotal	$ 528,358	$ 660,829	$ 132,471
Residential programs	Existing Homes	$ 387,297	$ 433,675	$ 46,379
	New Homes	$ 350,865	$ 372,086	$ 21,220
	Subtotal	$ 738,162	$ 805,761	$ 67,599
Administration		$ 43,660	$ 61,491	$ 17,831
Total		$ 1,310,180	$ 1,528,082	$ 217,901

D. Incentives paid

		Actual annual incentives
Commercial programs	Existing Buildings	$ 270,931
	Subtotal	$ 270,931
Residential programs	Existing Homes	$ 145,593
	New Homes	$ 195,089
	Subtotal	$ 340,682
Total		$ 611,613

Incentives paid account for just under 55 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.

E. Savings

		Annual therms saved	Annual goal (conservative)	Percent achieved	$/therm	Levelized cost/therm
Commercial programs	Existing Buildings	152,676	127,500	120%	$ 3.58	31.1 ¢
	Subtotal	152,676	127,500	120%	$ 3.58	31.1 ¢
Residential programs	Existing Homes	45,200	48,607	93%	$ 8.86	64.0 ¢
	New Homes	56,112	44,761	125%	$ 6.47	52.6 ¢
	Subtotal	101,312	93,368	109%	$ 7.54	57.8 ¢
Total		253,988	220,868	115%	$ 5.16	42.4 ¢

NW NATURAL APPENDIX 1:
2014 ENERGY EFFICIENCY MEASURE COUNTS AND SAVINGS

Table 1: Residential sector measures

Category	Measure	Measures installed	Total therms saved
Air sealing	Air sealing	7	179
	Blower Door tests	2	0
	Air sealing total	**9**	**179**
Home Energy Reviews	**Home Energy Reviews total**	**33**	**0**
Shell insulation	Ceiling insulation	23	1,856
	Floor insulation	13	617
	Wall insulation	15	783
	Duct insulation total	5	62
	Shell insulation total	**56**	**3,317**
Space heating	Boilers	1	44
	Custom thermostats	14	322
	Furnaces	212	15,730
	Gas fireplaces	136	13,872
	Space heating total	**363**	**29,968**
Water heating	Tank water heaters	22	667
	Showerheads	313	3,870
	Showerwands	9	120
	Faucet aerators	549	2,610
	Water heating total	**893**	**7,267**
Windows	**Windows total**	**120**	**4,427**
New Homes	ENERGY STAR new homes	252	24,436
	Tankless water heaters	5	325
	Low-income Energy Saver Kits	82	1,205
	Showerheads sold at retail	3,199	27,579
	High-efficiency clothes washers	653	2,566
	New Homes total	**4,191**	**56,112**
Other	**Other total**	**1**	**42**
	Grand total	**5,666**	**101,312**

Table 2: Commercial sector measures

Category	Measure	Measures installed	Total therms saved
Foodservice equipment	Gas fryers	57	32,433
	Convection ovens	5	1,510
	Foodservice equipment total	**62**	**33,943**
Shell insulation	Ceiling insulation	2	5,850
	Shell insulation total	**2**	**5,850**
Space heating	Boilers	4	23,536
	Space heating total	**4**	**23,536**
Water heating	Conventional condensing tanks	2	906
	Showerheads	1,023	15,834
	Water heating total	**1,025**	**16,740**
Motors	Custom variable frequency drive	1	16,579
	Motors total	**1**	**16,579**
Custom	Studies	8	--
	Custom building controls	5	38,235
	Misc. custom measures	9	17,793
	Custom total	**22**	**56,028**
	Grand total	**1,116**	**152,676**

NW NATURAL APPENDIX 2: CUSTOMER SATISFACTION

In 2014, Energy Trust conducted short phone surveys of NW Natural customers in Washington to determine satisfaction with their participation in Energy Trust programs. Results from 100 residential customers and seven commercial customers indicate a generally high level of customer satisfaction.

Table 1: NW Natural Washington residential customer satisfaction 2014

Residential (n=100)	Dissatisfied	Neutral	Satisfied
Overall satisfaction	1%	10%	88%
Incentive application form	3%	8%	89%
Turnaround time to receive incentive	8%	12%	81%

Energy Trust interviewed seven commercial customers in 2014. Most respondents were satisfied with their overall program experience, incentive amount, ease of applying for the incentive and interaction with program representatives.

Table 2: NW Natural Washington commercial customer satisfaction 2014

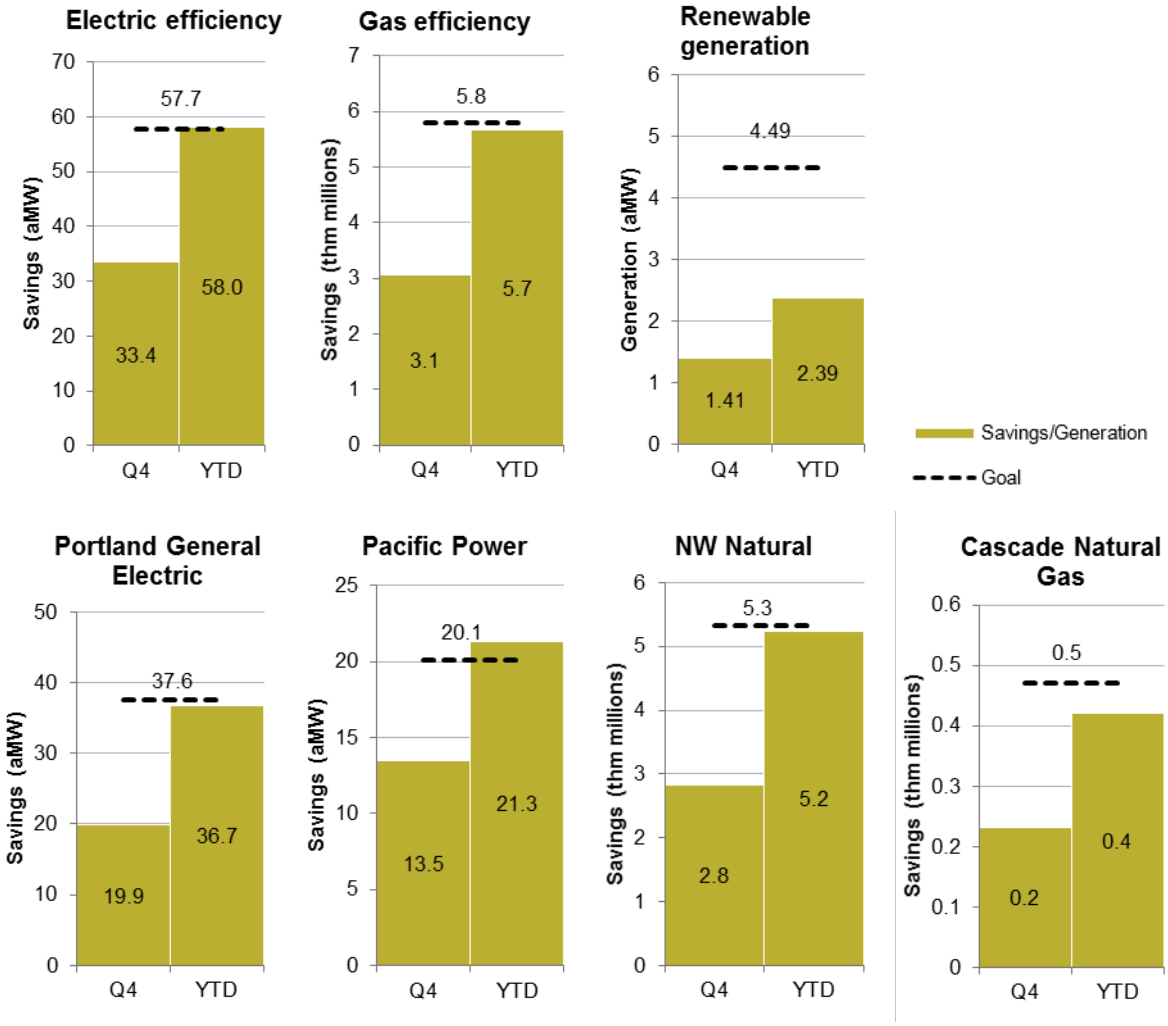
Commercial (n=7)	Dissatisfied	Neutral	Satisfied
Overall satisfaction	-	2	5
Incentive amount	-	-	7
Ease of applying for incentive	1	2	4
Interaction with program representative	-	1	6
Performance of equipment or system installed[24]	-	-	6
Turnaround time to receive incentive	2	2	3

[24] Customer satisfaction ratings do not add to seven because one customer responded “not applicable”

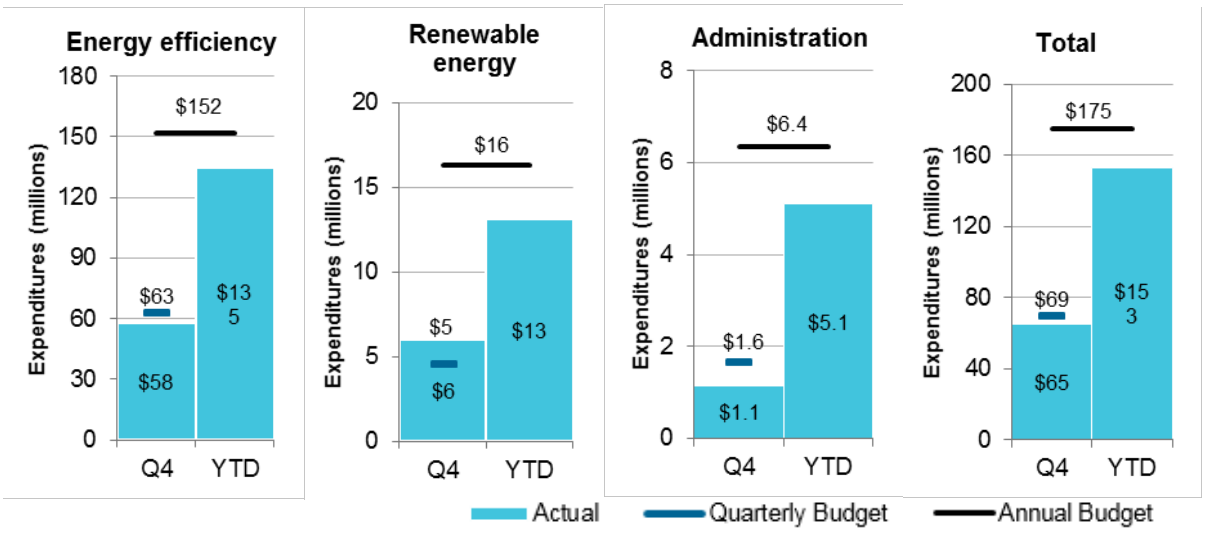
APPENDIX 9: QUARTER FOUR RESULTS TABLES

I. Q4 2014 ACTIVITY AT A GLANCE

Savings and generation



Expenditures



Q4 2014 residential activity

New homes and major remodels	**940**
New homes constructed	897
New manufactured homes	43
Weatherization retrofits	**2,094**
Single-family site-built	1,829
Existing manufactured homes	265
Home Energy Reviews[1]	**449**
Total Sites	**3,483**
Heating systems	**1,744**
Water heaters	**343**
Solar	7
High-efficiency products	**6,612**
Washing machines	5,554
Refrigerators & freezers	1,058
High-efficiency lighting[2]	**1,322,050**
Refrigerators, freezers recycled	**4,264**
Energy Saver Kits sent	**8,953**
Total Other Activity	**21,916**

[1] Includes in-home reviews only; Home Energy Reviews are also available online and by phone
[2] Lighting excluded from totals

Q4 2014 commercial activity

New Buildings sites served[1]	**206**
Whole building approaches	23
Packaged solutions for market segments	32
Standard/system-based approaches	152
Existing Buildings sites served[1]	**1,616**
Building Operator Certification	12
Custom[2]	234
Lighting	896
Prescriptive/standard[3]	526
SEM projects	**31**
Completed	1
In progress	30
Existing multifamily sites served	**916**
Solar water heating sites served	**0**
Sites receiving technical assistance	**148**

[1] New Buildings and Existing Buildings total sites served may include sites that participated in more than one program track
[2] The most common custom improvements are building controls and HVAC
[3] The most common prescriptive/standard improvements are foodservice and grocery equipment

Q4 2014 industrial/agricultural activity

Projects	**475**
Streamlined industrial[1]	213
Lighting	105
Custom[2]	119
Strategic Energy Management[3]	38
SEM projects in progress	**38**
Incentive offers made	**226**

[1] The streamlined track delivers savings from irrigation measures, small compressed air, variable frequency drives and other prescriptive and calculated measures
[2] The most common custom improvements are compressed air system and process upgrades
[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
[4] Incentive offers made to and accepted by customers in the quarter, giving customers two years to install upgrades and receive incentives

Q4 2014 eenewable energy activity

Solar electric installations	**561**
Residential	543
Commercial	18
Other renewable projects	**1**
Biopower projects	0
Wind projects	0
Hydropower projects	0
Geothermal projects	1
Total	**562**

Q4 2014 trade ally activity

Regional trade ally roundtable meetings	**4**
Attendance	130
Trainings provided	**38**
Trade allies added to network	**66**
Trade allies accessing business development funds	**101**

Q4 2014 operations activity

Project transactions completed in IT systems	**30,612**
Calls received	**6,601**
Website visits	**292,883**
info@energytrust.org inquiries	**508**
Complaints	**6**
News stories in print, broadcast	**67**

II. TABLES[25]

A. Revenues

Source	Q4 actual revenues received	Q4 budgeted revenues
Portland General Electric	$ 8,762,431	$ 7,966,889
PGE Incremental	$ 10,641,215	$ 13,570,039
Pacific Power	$ 6,328,668	$ 6,869,147
Pacific Power Incremental	$ 5,538,937	$ 6,739,141
Cascade Natural Gas	$ 302,386	$ 593,250
NW Natural	$ 2,578,116	$ 3,003,601
NW Natural Industrial DSM	$ 1,024,350	$ 1,257,878
Total	**$ 35,176,103**	**$ 39,999,944**

Incremental revenues are those authorized under SB 838 to support capturing additional cost-effective electric efficiency savings above the amount supported by funding through SB 1149.

B. Expenditures

Type	Q4 actual expenditures	Q4 budgeted expenditures
Energy efficiency programs	$ 57,684,904	$ 62,727,072
Renewable energy programs	$ 5,977,297	$ 4,579,635
Administration	$ 1,137,812	$ 1,642,998
Total	**$ 64,800,013**	**$ 68,949,706**

Source	Q4 actual expenditures	Q4 budgeted expenditures
Portland General Electric	$ 35,064,681	$ 37,794,879
Pacific Power	$ 21,401,289	$ 20,829,659
Cascade Natural Gas	$ 668,236	$ 950,751
NW Natural	$ 6,090,703	$ 7,678,088
NW Natural Industrial DSM	$ 1,575,104	$ 1,696,328
Total	**$ 64,800,013**	**$ 68,949,706**

[25] Columns may not total due to rounding.

C. Incentives paid

	Energy efficiency				Renewable energy		Total
Quarter	PGE	Pacific Power	NW Natural	Cascade Natural Gas	PGE	Pacific Power	
Q1	$ 3,333,343	$ 1,744,478	$ 1,076,423	$ 85,089	$ 664,033	$ 261,721	$ 7,165,087
Q2	$ 8,016,188	$ 4,361,563	$ 2,353,929	$ 229,014	$ 1,112,130	$ 731,143	$16,803,966
Q3	$ 6,258,657	$ 3,923,119	$ 1,763,691	$ 189,920	$ 1,026,857	$ 1,711,530	$14,873,774
Q4	$22,607,035	$11,944,408	$ 5,291,019	$ 428,923	$ 2,635,322	$ 2,816,095	$45,722,803
Total	**$40,215,222**	**$21,973,568**	**$10,485,062**	**$ 932,946**	**$ 5,438,342**	**$ 5,520,489**	**$84,565,630**

D. Savings and generation

Q4 electric efficiency savings	PGE (aMW)	Pacific Power (aMW)	Total savings (aMW)	Expenses
Commercial	8.7	5.4	14.1	$ 22,910,466
Industrial	6.7	5.0	11.7	$ 14,307,994
Residential	4.6	3.1	7.7	$ 13,153,458
Total electric efficiency programs	**19.9**	**13.5**	**33.4**	**$ 50,371,918**

Q4 gas efficiency savings	NW Natural (thm)	Cascade Natural Gas (thm)	Total savings (thm)	Expenses
Commercial	1,459,326	159,154	1,618,480	$ 3,396,453
Industrial	553,710	27,150	580,860	$ 1,115,580
Residential	808,420	45,653	854,073	$ 3,822,010
Total gas efficiency programs	**2,821,456**	**231,956**	**3,053,412**	**$ 8,334,043**

Q4 renewable energy generation	PGE (aMW)	Pacific Power (aMW)	Total generation (aMW)	Expenses
Other Renewable Program	0.00	0.87	0.87	$ 2,490,887
Solar Electric Program	0.35	0.19	0.54	$ 3,603,165
Total renewable programs	**0.35**	**1.07**	**1.41**	**$ 6,094,052**

E. Progress toward annual efficiency and generation goals

	YTD expenditures	YTD savings/ generation	Energy Trust annual goal	Percent achieved
Electric savings	$ 117,692,324	58.02	57.70	101%
Natural gas savings	$ 21,751,429	5,658,998	5,802,048	98%
Electric generation	$ 13,545,993	2.39	4.49	53%

F. Progress toward annual efficiency goals by utility

	YTD expenditures	YTD savings	Energy Trust annual goal	Percent achieved	Annual IRP target	Percent achieved
Portland General Electric	$74,337,061	36.7 aMW	37.6 aMW	98%	36.3 aMW	101%
Pacific Power	$43,355,263	21.3 aMW	20.1 aMW	106%	19.0 aMW	112%
NW Natural	$19,794,868	5.2 million therms	5.3 million therms	98%	5.3 million therms	98%
Cascade Natural Gas	$1,956,561	420,513 therms	470,561 therms	89%	470,561 therms	89%

G. Incremental utility SB 838 expenditures[26]

Utility	2014 Q4 SB 838 Expenditures	YTD SB 838 Expenditures
Portland General Electric	$200,508	$799,430
Pacific Power	$343,927	$1,066,653
Total	**$544,435**	**$1,866,083**

H. Q4 2014 Energy efficiency savings and expenditures by program[27]

1. Total energy efficiency savings and expenditures

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Electric	33.4 aMW	58.0 aMW	57.7 aMW	101%
Gas	3.1 million therms	5.7 million therms	5.8 million therms	98%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 50,371,918	$ 3,534,648	6.6%	$ 117,692,324	$ 12,570,569	9.7%
Gas	$ 8,334,043	$ 1,991,125	19.3%	$ 21,751,429	$ 5,667,438	20.7%
Total	**$ 58,705,961**	**$ 5,525,773**	**8.6%**	**$ 139,443,754**	**$ 18,238,007**	**11.6%**

2. Existing Buildings savings and expenditures

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Electric	10.3 aMW	15.4 aMW	15.9 aMW	97%
Gas	1.3 million therms	1.8 million therms	1.8 million therms	102%

[26] Reflects expenditures by Pacific Power and PGE in support of utility activities described in SB 838. Reports detailing these activities are submitted annually to the OPUC.
[27] Variance is expressed in total dollars *below* budget or (total dollars) *above* budget.

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 17,323,793	$ 2,833,272	14.1%	$ 35,848,259	$ 7,701,263	17.7%
Gas	$ 2,860,989	$ 702,090	19.7%	$ 5,763,469	$ 2,229,919	27.9%
Total	**$ 20,184,782**	**$ 3,535,362**	**14.9%**	**$ 41,611,728**	**$ 9,931,182**	**19.3%**

3. New Buildings savings and expenditures

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Electric	3.0 aMW	5.3 aMW	5.0 aMW	105%
Gas	309,509 therms	675,940 therms	560,707 therms	121%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 4,940,949	$ (461,939)	-10.3%	$ 12,085,607	$ 1,281,033	9.6%
Gas	$ 516,022	$ (79,569)	-18.2%	$ 1,629,155	$ (154,935)	-10.5%
Total	**$ 5,456,972**	**$ (541,508)**	**-11.0%**	**$ 13,714,763**	**$ 1,126,098**	**7.6%**

4. Production Efficiency savings and expenditures

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Electric	11.6 aMW	18.5 aMW	17.5 aMW	106%
Gas	580,860 therms	1.0 million therms	1.2 million therms	85%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 14,086,945	$ 1,078,744	7.1%	$ 28,536,721	$ 2,285,244	7.4%
Gas	$ 1,115,580	$ 380,037	25.4%	$ 2,462,545	$ 786,438	24.2%
Total	**$ 15,202,525**	**$ 1,458,781**	**8.8%**	**$ 30,999,266**	**$ 3,071,683**	**9.0%**

- Production Efficiency gas spending was low in Q4 due to achieving fewer savings than expected because of the delay of several large custom projects in NW Natural territory to 2015.

5. Existing Homes savings and expenditures

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Electric	2.1 aMW	5.1 aMW	5.2 aMW	98%
Gas	481,258 therms	1.1 million therms	1.2 million therms	89%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 4,559,003	$ 1,803,144	28.3%	$ 13,464,824	$ 3,192,831	19.2%
Gas	$ 2,060,244	$ 1,459,574	41.5%	$ 7,072,283	$ 2,574,133	26.7%
Total	**$ 6,619,247**	**$ 3,262,718**	**33.0%**	**$ 20,537,107**	**$ 5,766,964**	**21.9%**

- Low gas and electric spending in Q4 was due to increased year-end promotion of energy-saving products to help mitigate reduced demand for Home Performance with ENERGY STAR® upgrades. Energy-saving products achieve savings at a lower cost than weatherization or equipment measures.

6. New Homes and Products savings and expenditures

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Electric	3.2 aMW	8.5 aMW	8.1 aMW	105%
Gas	372,814 therms	1.1 million therms	1.0 million therms	103%

Includes gas market transformation savings associated with the 2008 and 2011 residential code changes.

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 6,975,651	$ (1,890,142)	-37.2%	$ 19,412,163	$ (2,349,664)	-13.8%
Gas	$ 1,742,325	$ (464,232)	-36.3%	$ 4,663,075	$ 262,412	5.3%
Total	**$ 8,717,975**	**$ (2,354,375)**	**-37.0%**	**$ 24,075,238**	**$ (2,087,252)**	**-9.5%**

- New Homes and Products spent more than budgeted in Q4 due to higher-than-expected demand for LEDs, showerheads and EPS-rated homes. Overspending in Q4 was balanced by some underspending in prior quarters.

7. Northwest Energy Efficiency Alliance savings and expenditures[28]

	Q4 savings	YTD savings	Energy Trust annual goal	Percent achieved YTD
Commercial	0.8 aMW	1.3 aMW	1.0 aMW	122%
Industrial	0.1 aMW	0.2 aMW	0.2 aMW	87%
Residential	2.4 aMW	3.9 aMW	4.8 aMW	81%
Total	3.3 aMW	5.3 aMW	6.0 aMW	88%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Commercial	$ 665,166	$ 98,385	12.9%	$ 2,732,136	$ 142,034	4.9%
Industrial	$ 221,049	$ 203,438	47.9%	$ 983,797	$ 462,576	32.0%
Residential	$ 1,638,246	$ (137,028)	-9.1%	$ 4,789,719	$ (175,279)	-3.8%
Total	**$ 2,524,461**	**$ 164,795**	**6.1%**	**$ 8,505,652**	**$ 429,332**	**4.8%**

[28] For the first time in 2014, Energy Trust has allocated budget to NEEA for gas market transformation activities. While there were no associated gas savings in Q4, savings are expected in subsequent quarters.

- Beginning in 2015, Northwest Energy Efficiency Alliance will scale back its market transformation effort for the industrial sector. Early transition to fewer industrial sector market transformation activities impacted spending for NEEA industrial efforts in Q4.

I. Q4 2014 Renewable energy generation and expenditures by program[29]

1. Total renewable energy generation and expenditures

	Q4 generation	YTD generation	Energy Trust annual goal	Percent achieved YTD
Electric	1.4 aMW	2.4 aMW	4.5 aMW	53%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 6,094,052	$ (1,376,080)	-29.2%	$ 13,545,993	$ 3,440,170	20.3%

2. Solar generation and expenditures

	Q4 generation	YTD generation	Energy Trust annual goal	Percent achieved YTD
Electric	0.5 aMW	1.1 aMW	2.7 aMW	43%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 3,603,165	$ (883,207)	-32.5%	$ 8,681,858	$ 1,659,456	16.0%

- The program spent more than budgeted in Q4 due to installation of more standard residential and commercial solar systems than expected in the quarter.

3. Other Renewables generation and expenditures

	Q4 generation	YTD generation	Energy Trust annual goal	Percent achieved YTD
Electric	0.9 aMW	1.2 aMW	1.8 aMW	67%

	Q4 expenditures	Variance from Q4 budget		YTD expenditures	Variance from YTD budget	
Electric	$ 2,490,887	$ (492,873)	-24.7%	$ 4,864,135	$ 1,780,714	26.8%

[29] Variance is expressed in total dollars *below* budget or (total dollars) *above* budget.

J. Customer satisfaction results

Customer satisfaction results for Q3 2014

From the end of August 2014 through the end of October 2014, Energy Trust delivered a short telephone survey to 545 randomly selected participants in five programs who completed projects between July and September 2014. Below are results from Fast Feedback surveys of these customers. The survey asked participants about overall satisfaction with Energy Trust.

Satisfaction rates for Q3 remained consistent with past quarters. Participants in the Existing Buildings, Production Efficiency and Solar programs were also asked about satisfaction with program representatives.[30]

Customer satisfaction results for Q3 2014

Program	Respondent Count	Percent Satisfied Overall	Percent Satisfied with Program Representative
Existing Buildings, including multifamily	48	98%	95%
Production Efficiency	26	96%	100%
New Homes and Products[31]	167	95%	N/A
Existing Homes	285	93%	N/A
Solar[32]	19	100%	N/A[33]

Customer satisfaction results for New Buildings

New Buildings projects often involve numerous market actors (architect, engineer, developer, owner and more) at different project stages, so it is difficult to reach a project representative who is able to respond to questions about satisfaction. Satisfaction with the New Buildings program is obtained from interviews with program participants as part of annual program process evaluations. In the 2014 process evaluation, conducted in early 2015, 37 New Buildings project owners or representatives were surveyed about their overall program satisfaction and satisfaction with communications with program representatives. Of participants surveyed, 97 percent were satisfied with their overall program experience. Satisfaction with program representatives was high, at 100 percent.

[30] Since residential customers have varying degrees of interaction with program representatives (many may not have any interaction), and because it is not possible to identify customers who did have interaction to survey, residential customers are not questioned on this topic.
[31] Only Products customers were surveyed. Energy Trust does not track purchasers of new homes.
[32] Customers that installed solar using a third party are not surveyed.
[33] Only commercial solar customers are surveyed about satisfaction with program representatives. In Q3 2014, no commercial solar customers were surveyed.

APPENDIX 10: 2014 ENERGY EFFICIENCY RESULTS FOR SB 1149 AND SB 838 FUNDS

2014 SB 1149 Electric Efficiency Results	PGE aMW saved	Pacific Power aMW saved	Total aMW saved	Expenses	mil $/aMW
Commercial	4.59	3.82	8.41	$ 18,910,228	$ 2.25
Industrial	8.89	4.69	13.59	$ 16,981,738	$ 1.25
Residential	3.39	2.64	6.03	$ 12,104,752	$ 2.01
Total electric efficiency programs	16.88	11.15	28.03	$ 47,996,718	$ 1.71

2014 SB 838 Electric Efficiency Results	PGE aMW saved	Pacific Power aMW saved	Total aMW saved	Expenses	mil $/aMW
Commercial	9.57	3.91	13.48	$ 31,675,323	$ 2.35
Industrial	3.28	1.78	5.05	$ 12,538,779	$ 2.48
Residential	6.96	4.49	11.45	$ 25,481,503	$ 2.23
Total electric efficiency programs	19.81	10.17	29.99	$ 69,695,605	$ 2.32

2014 SB 838 Utility Expenditures	Q1	Q2	Q3	Q4	Total
Portland General Electric	$ 152,268	$ 243,554	$ 203,100	$ 200,508	$ 799,430
Pacific Power	$ 52,934	$ 249,802	$ 419,990	$ 343,927	$ 1,066,653
Total electric efficiency programs	$ 205,202	$ 493,356	$ 623,090	$ 544,435	$ 1,866,083