

## **Quarter Four 2010 Report to the Oregon Public Utility Commission**

October 1, 2010, through December 31, 2010

This Energy Trust of Oregon quarterly report covers the period 10/1/10 through 12/31/10, the fourth quarter of 2010 (Q4). The report presents activity, revenue and expenditure information for the quarter along with progress toward 2010 and 2014 energy-saving and renewable energy generation goals.<sup>1</sup>

#### I. HIGHLIGHTS

#### 1. General

## Savings and generation

- Electric efficiency projects completed during Q4 are expected to save 22.6 average megawatts. Preliminary year-end results show annual savings of 44.5 average megawatts, 99 percent of the 2010 electric stretch goal of 45 average megawatts.
- Compared to 2009, preliminary 2010 electric savings are up by 38 percent. Every Energy Trust program, with the exception of NEEA regional market transformation activities, met or exceeded its stretch electric goal.
- Gas efficiency projects completed during Q4 are expected to save 2.3 million annual therms<sup>2</sup>. Preliminary year-end results show savings of 4.6 million annual therms, which is 95 percent of the stretch goal of 4.8 million annual therms.
- With the exception of savings from Production Efficiency and gas market transformation activities, preliminary results show every Energy Trust program meeting its conservative gas goal, with several exceeding stretch goals.
- Renewable energy projects completed during Q4 are expected to generate 1.84 average megawatts. Preliminary year-end results show generation of 3.29 average megawatts in 2010.
- Status of progress toward utility integrated resource plan goals is shown on page 9.
- Including preliminary 2010 results, electric efficiency programs have cumulatively saved 267 average megawatts since March 1, 2002. When savings from self-directed industrial projects are added, the total represents 60 percent of Energy Trust's 2014 goal of 479 average megawatts. This is equivalent to the annual electric consumption of approximately 207,000 average Oregon homes.
- Including preliminary 2010 results, cumulative savings of 17.6 million annual therms have been realized since gas programs began in 2003, accounting for 51 percent of the 2014 goal of 34.7 million annual therms. This is equivalent to providing gas heat to approximately 34,000 homes.

<sup>&</sup>lt;sup>1</sup> In December 2009, Energy Trust's board of directors adopted a new strategic plan with goals for 2014. Beginning first quarter 2010, we are reporting progress toward those goals.

<sup>&</sup>lt;sup>2</sup> The gas savings total includes annual therms from market transformation (new construction code changes and furnaces) included for the first time in the 2010 quarterly reports.

• Since March 1, 2002, renewable energy efforts have helped develop projects with generation totaling 103 average megawatts, accounting for 82 percent of the 2014 goal of 124 average megawatts. This is equivalent to powering approximately 80,000 average Oregon homes.

## Revenues and expenditures

- Overall public purpose revenue plus incremental revenue from SB 838 totaled \$28.5 million for Q4, approximately one percent above forecast.
- Electric efficiency expenditures for the quarter were 8 percent over budget for the quarter and 6 percent below the annual budget.
- Gas efficiency expenditures for the quarter were 23 percent under budget for the quarter and 17 percent below the annual budget.
- Total Energy Trust expenditures for Q4 equaled \$45.3 million; of which \$32.6 million or 72 percent was for incentives.

## Other general highlights

- In Q4, for the first time in Energy Trust history, more customers participated in our programs
  using online forms than by any other means. More than 32,000 applications used web forms
  versus 14,500 via paper forms. In addition to improved customer convenience and faster
  delivery of incentive payments, each web form transaction saves at least four minutes of
  processing time while also improving data quality.
- By the end of Q4, 345 home retrofits in the Clean Energy Works Portland pilot were complete, 379 participants had signed loans and an additional 117 projects were in process toward the 500-home goal. Pilot managers added a bridge phase, using funds from the Portland Development Commission and the \$20 million federal Clean Energy Works Oregon (CEWO) grant, to provide contractors continuity in the market until CEWO expands the program statewide starting in March 2011.
- The new nonprofit Clean Energy Works Oregon continued preparations for launch of a
  program similar to the pilot. Elements include a whole-house approach, free comprehensive
  up-front energy assessments and low-cost, long-term loans covering all costs of select
  efficiency upgrades, with payback on gas and electric utility bills. Energy Trust Executive
  Director Margie Harris serves on the CEWO board of directors.
- CEWO received a \$3.5 million grant from the Oregon Department of Energy's EEAST Loan-Loss Reserve Fund (\$5 million in Oregon Lottery funds) that supports extending its offerings to 17 communities statewide.
- Final preparations were made for launch of the year-long OPOWER pilot in January. Sixty
  thousand randomly selected households served by both Portland General Electric and NW
  Natural will participate, representing the first time the behavior change approach is being
  tested for both gas and electricity provided by two different utilities.
- Appendices:
  - Appendix 1 presents results of energy efficiency activities funded by the NW Natural Industrial Demand-side Management Program
  - Appendix 2 includes reports from Pacific Power and PGE on Q4 2010 utility activities supported by SB 838 funding, providing additional support for electric efficiency acquisition beyond amounts collected through the public purpose charge.

- Appendix 3 summarizes Northwest Energy Efficiency Alliance Q4 2010 market transformation activities in PGE and Pacific Power Oregon service territories, funded by Energy Trust.
- Appendix 4 shows a geographic distribution of Home Energy Reviews and Solar Energy Reviews conducted in Q4 2010.
- Appendix 5 is the annual report on the NW Natural–Washington pilot program for commercial and residential customers. To align with NW Natural's fiscal year, the pilot's first year began October 1, 2009, and ended September 30, 2010. The annual report covers this period.

#### 2. Business

- Preliminary year-end results show business programs meeting electric stretch goals and exceeding gas stretch goals by large margins. Compared to 2009, 2010 results have increased by more than 60 percent.
- Existing Buildings closed more than 1,200 projects in Q4, representing more than 40 percent of the annual total.
- The \$5 per fixture bonus for T12 to high-efficiency T8 lighting conversions exceeded expectations. Preliminary results show an additional 8,700 fixtures related to the bonus, considerably more than the goal of 5,000 fixtures. Results were especially strong in Southern Oregon.
- A significant effort to support steam trap replacements in schools and roof-top HVAC tuneups helped boost results in Cascade Natural Gas territory and put the Existing Buildings program on track to achieve 94 percent of its stretch goal for Cascade, according to preliminary year-end figures.
- Lockheed Martin was competitively selected to manage the multifamily component of the
  Existing Buildings program. Q4 was a transition period, with Lockheed Martin assuming full
  responsibility on January 1, 2011. During the transition, lighting projects in common areas in
  buildings throughout the state brought in more than 600,000 kilowatt hours of savings, while
  a record number of instant savings measures were installed.
- New Buildings closed 89 projects in Q4, a slight increase over Q3.
- New Buildings enrolled 73 new projects during Q4, including 14 public school projects. Three
  public school projects were completed in Q4.
- New Buildings rolled out the enhanced program for projects permitted under the new 2010 commercial code, including new lighting and HVAC calculators and a new, simplified suite of program forms. The program offered two trainings in collaboration with the American Institute of Architects along with a series of "lunch and learn" sessions for selected architecture and engineering firms.

## 3. Industry and Agriculture

- Preliminary year-end results show the Production Efficiency program exceeding the electric stretch goal.
- Despite efforts that increased preliminary industrial gas savings in 2010 by 112 percent compared to 2009, a few projects were delayed into 2011 and others cancelled; consequently, it does not appear that the program met conservative 2010 goals for therms saved. Savings in other programs offsets this shortfall.

- An analysis of industrial gas incentives undertaken in Q4 found that that incentive levels
  were not on par with levels that have proven successful in driving investment in industrial
  electric efficiency projects. As a result, a new, enhanced suite of industrial custom gas
  incentives was designed to take effect on January 1, 2011, and included an increase from
  \$1/therm to \$1.50/therm for savings acquired.
- The acceleration of project closeouts in Q4 represented 73 percent of 2010 industrial gas savings and 64 percent of annual electric savings.
- While the majority of savings are derived from traditional process and/or equipment retrofits, two new initiatives made major contributions:
  - The second cohort of the Industrial Energy Improvement pilot ended in Q4, with seven companies successfully implementing Strategic Energy Management systems in their plants. Over the year of IEI training and mentored support, staff at the seven plants implemented low-cost and no-cost energy-saving practices and actions that saved almost 11 million kilowatt hours. These savings and those from the first IEI cohort in Q1 of 2010 accounted for close to 20 percent of Production Efficiency's 2010 electric savings.
  - The 90x90 custom operations and maintenance offer was made available to pay up to 90 percent of costs for projects implemented within 90 days of receiving Energy Trust's recommendations. A total of 47 projects completed in Q4, saving 20 million kilowatt hours. This attention to the new low-hanging fruit of operational efficiency provided close to 15 percent of total program savings in 2010 at a levelized cost of less than 1 cent per kilowatt hour.
- New industrial gas efficiency projects were identified and 17 projects were completed during Q4.

### 4. Homes

- Preliminary year-end results show both residential programs exceeding stretch electric goals.
   New Homes and Products beat its stretch gas goal by a considerable margin, while Existing
  Homes came in between the conservative and stretch goals. Both programs made significant
  gains over 2009 results.
- More than 24,000 customers took action to save energy through the Q4 Free Your Home campaign. The campaign placed nearly 13,000 Energy Saver Kits in households, distributed 2,800 efficient showerheads, scheduled over 2,800 Home Energy Reviews and recycled over 6,000 refrigerators and freezers.
- Including those placed through the campaign, nearly 55,000 Energy Saver Kits were distributed in Q4, achieving savings of nine million kilowatt hours and 125,000 annual therms.
- During the quarter, 867 customers attended Home Energy IQ consumer education workshops.
- Existing Homes staff began collaborating with Clackamas County on its Energize Clackamas
  effort, which provides bonus incentives up to \$500 to match Energy Trust weatherization
  incentives. A similar effort is underway in Corvallis. Both are using American Recovery and
  Reinvestment Act funds.
- More than 40 contractors were approved to provide enhanced incentives to moderateincome participants, defined as 200-250 percent of the federal poverty level.

- A Coos Bay middle school won the fall Change a Light, Change the World fundraising contest. Students sold more than 500 compact fluorescent light bulbs, earning \$1,180 for their school and the contest's grand prize of a portable solar power station that can be used to fuel teaching lessons for years to come.
- The number of refrigerators recycled in Q4 2010 is 20 percent higher than in Q4 2009.
- Use of online applications for new appliances and refrigerator recycling rose approximately 400 percent from Q4 2009 to Q4 2010.
- New Homes secured its first Green Mortgage loan product with Umpqua Bank.
- During the quarter, New Homes recruited 35 new builders and issued 178 new construction Energy Performance Scores.

## 5. Renewable Energy

- In a tumultuous year stemming from uncertainty surrounding availability of state tax credits, renewable energy programs preliminarily are credited with 3.29 average megawatts. While this total falls short of the board-approved annual conservative goal, renewable generation again met the Oregon Public Utility Commission benchmark of 3 average megawatts on a three-year rolling average.
- October marked a temporary closure of Tier 1 Business Energy Tax Credits due to lack of funds, influencing many small commercial renewable energy projects to delay development until 2011.
- The first ever Solar Now! University was held in Pendleton to help individuals from Sherman County, Hood River, The Dalles, La Grande and Pendleton develop and implement plans to increase solar installations in their communities.
- Staff taught a class on Oregon's renewable energy policy and incentive landscape for students in Columbia Gorge Community College's renewable energy technician program.
- Energy Trust was honored with a 2010 State Leadership in Clean Energy Award from the Clean Energy States Alliance for its role in developing the Solarize Portland initiative.
- Two Portland neighborhoods, North and Northwest, launched new Solarize group purchase initiatives.
- Energy Trust provided a \$1 million incentive to the Central Oregon Irrigation District for its 3.5 megawatt hydro project completed in October.
- Staff presented at a national conference on Small Hydropower in Washington, D.C.
- A study has identified approximately 1 megawatt of ranch-scale hydroelectric resource at 22 sites in Wallowa County. The close proximity of the sites may reduce development costs.
- Incentives were provided for six small wind installations.
- Energy Trust supported a week-long, hands-on small wind installation training for Oregon contractors presented by the Oregon Small Wind Energy Association.
- Staff participated in workshops about state Residential Energy Tax Credits, net metering rulemaking and the OPUC report to the legislature on the photovoltaic feed-in tariff pilot.
- Staff conducted a study to document how a project might secure transmission services from Bonneville Power Administration to wheel power to PGE or Pacific Power service territory.

## 6. Projects completed this quarter<sup>3</sup>

	Total	Electric-only	Gas-only	Both
ENERGY EFFICIENCY				
Commercial projects				
Existing buildings retrofitted	1,234	977	93	164
Efficient new buildings constructed	89	51	5	33
Multifamily buildings retrofitted	141	96	8	37
New multifamily buildings constructed	7	1	0	6
Solar water heating commercial installations	7	5	2	0
Subtotal Commercial	1,478	1,130	108	240
Industrial projects	380	363	6	11
Residential projects				
Efficient new homes constructed	253	50	70	133
Efficient new manufactured homes purchased	49	47	2	0
Home Energy Reviews conducted	2,164	548	88	1,528
Single-family homes retrofitted	4,282	1,588	2,604	90
Manufactured homes retrofitted	821	772	13	36
Residential solar water heating installations	33	22	11	0
ENERGY STAR appliance rebates	9,936	6,855	316	2,765
Subtotal Residential			3,104	4,552
TOTAL EFFICIENCY	19,396	11,375	3,218	4,803
RENEWABLE ENERGY INSTALLATIONS				
Biopower project installations	0	0	0	0
Solar energy reviews performed	27	27	0	0
Solar electric residential installations	453	453	0	0
Solar electric commercial installations	30	30	0	0
Other renewable project installations	8	8	0	0
TOTAL RENEWABLE ENERGY	518	518	0	0
TOTAL EFFICIENCY AND RENEWABLE ENERGY	19,914	11,893	3,218	4,803

## 7. Revenues and expenditures

- \$28.5 million in public purpose and incremental revenues were received during Q4, with expenditures at \$45.3 million.
- A total of \$32.6 million in incentives was paid.

 $^{3}$  We define "projects" to be completed installations or services at one location with certain exceptions:

- A Home Energy Review, with CFL installation, counts as one project. If that home subsequently installs one or more measures, this installation counts as a separate project.
- See Appendix 4 for a geographical breakdown of Home Energy Reviews.
- Each apartment unit treated counts as one project.
- Each manufactured home counts as one project.
- Measures installed in separate facilities within a large industrial complex count as separate projects.
- Project totals do not include 290,682 CFL packages sold/provided nor 8,386 old refrigerators/freezers recycled during the quarter.

## 8. OPUC performance measures

 Following are the most recent performance measures established by OPUC for Energy Trust. Comparison of performance against these measures for 2010 will be reported in the 2010 annual report.

Category	Measures
Energy Efficiency	Obtain at least 31 aMW computed on a three-year rolling average
	Levelized cost not to exceed 3.5 cents/kWh
Natural Gas	Obtain at least 1.8 million annual therms computed on a three-year rolling average
	Levelized cost not to exceed 60 cents/therm
Renewable Energy	<ul> <li>Achieve at least 3 aMW from small-scale projects, computed on a three-year rolling average</li> </ul>
Financial Integrity	Receive an unqualified financial opinion from an independent auditor on annual financial statements
Administrative/Program Support Costs	Keep below 11 percent of annual revenue
Customer Satisfaction	Demonstrate reasonable rates
Benefit/Cost Ratios	Report both utility system and societal perspective on an annual basis
Incremental Electric Efficiency Funding	<ul> <li>Report annually energy savings achieved as a result of SB 838</li> </ul>

# 9. Benefit/cost ratios for 2009 (will be updated for 2010 in the 2010 annual report)<sup>4</sup>

Program	Utility System Benefit/Cost Ratio	Societal Benefit/Cost Ratio
New Homes and Products	1.9	1.7
Existing Homes	1.8	1.4
Existing Buildings	3.4	1.8
New Buildings	2.6	2.2
Production Efficiency	3.1	1.8
NW Energy Efficiency Alliance	9.0	3.0

Page 7 of 34

<sup>&</sup>lt;sup>4</sup> By law, Oregon public purpose funds may be invested only in cost-effective energy-efficiency measures—that is, efficiency measures must cost less than acquiring the energy from conventional sources.

## II. TABLES

## 1. Revenues

Source	Q4 Actu	ual Revenues Received	Q4 Budgeted Revenues
Portland General Electric	\$	8,165,536	\$ 9,068,255
Pacific Power	\$	4,971,602	\$ 5,090,837
PGE Incremental	\$	6,336,867	\$ 5,088,843
Pacific Power Incremental	\$	4,764,455	\$ 4,593,172
Cascade Natural Gas	\$	571,585	\$ 439,717
NW Natural	\$	3,202,658	\$ 3,432,452
NW Natural DSM Pilot	\$	437,499	\$ 437,500
Total	\$	28,450,202	\$ 28,150,775

## 2. Expenditures

Туре	Q4 Ac	tual Expenditures	Q4 Budgeted Expenditures		
Energy Efficiency programs	\$	38,965,860	\$	38,434,766	
Renewable Energy programs	\$	5,142,741	\$	13,996,884	
Administration	\$	1,178,446	\$	1,285,754	
Total	\$	45,287,047	\$	53,717,404	

# 3. Incentives paid

	Energy Efficiency						Renewab	Total	
				Cascade					
				Natural				Pacific	
Quarter	PGE	Pacific Power	<b>NW Natural</b>	Gas	Avist	a	PGE	Power	
Q1	\$ 2,786,944	\$ 1,657,987	\$ 1,480,359	\$ 65,463	\$ 7	7	\$1,837,910	\$ 681,261	\$ 8,510,001
Q2	\$ 5,171,975	\$ 2,897,205	\$ 1,685,276	\$ 183,388	\$	0	\$1,822,681	\$ 1,486,366	\$ 13,246,891
Q3	\$ 5,644,494	\$ 3,037,636	\$ 2,026,441	\$ 122,977	\$ (7	7)	\$3,950,635	\$ 2,154,677	\$ 16,936,783
Q4	\$ 13,061,333	\$ 10,413,042	\$ 4,285,872	\$ 346,576	\$	0	\$2,050,012	\$ 2,451,635	\$ 32,608,470
Total	\$ 26,664,746	\$ 18,005,870	\$ 9,477,948	\$ 718,404	\$	0	\$ 9,661,238	\$6,773,939	\$71,302,145

# 4. Savings and generation

Electric Efficiency Savings	PGE aMW	Pacific Power aMW	Total Savings aMW	Expenses	mil \$/aMW	Levelized Cost/kWh
Commercial	5.29	5.52	10.81	\$ 16,274,961	\$ 1.5	1.7 ¢
Industrial	3.54	4.50	8.04	\$ 7,750,894	\$ 1.0	1.8 ¢
Residential	2.21	1.54	3.75	\$ 9,793,087	\$ 2.6	3.2 ¢
Total Energy Efficiency Programs	11.04	11.56	22.60	\$ 33,818,942	\$ 1.5	2.0 ¢

	NW	Cascade Natural		Total			
	Natural	Gas	Avista	Savings			Levelized
Gas Efficiency Savings	Therms	Therms	Therms	Therms	Expenses	\$/Therm	Cost/Therm
Commercial	1,049,870	104,893	0	1,154,763	\$ 2,662,053	\$ 2.3	19 ¢
Industrial	321,359	39,704	0	361,063	\$ 619,816	\$ 1.7	21 ¢
Residential	700,562	40,719	-22	741,259	\$ 2,932,646	\$ 4.0	29 ¢
Total Energy Efficiency Programs	2,071,791	185,316	-22	2,257,085	\$6,214,515	\$ 2.8	23 ¢

		Pacific	Total			
	PGE	Power	Generation		mil	Levelized
Renewable Energy Generation	aMW	aMW	aMW	Expenses	\$/aMW	Cost/kWh
Biopower	0.000	0.000	0.000	\$ 353,299	n/a	n/a
Solar Electric	0.130	0.120	0.250	\$ 3,392,549	\$ 13.6	13.0¢
Other Renewables	0.010	1.580	1.590	\$ 1,507,751	\$ 0.9	0.9¢
Total Renewable Programs	0.140	1.700	1.840	\$ 5,253,599	\$ 2.9	2.7 ¢

## 5. Progress toward goals by utility

			Energy <sup>-</sup>	Trust		
			Annual Goal (C	conservative)	Annual IRI	P Goal
		YTD Annual	Goal	YTD	Goal	YTD
	Q4 Savings	Savings	Goal	% Achieved	Goal	% Achieved
	11.0 aMW	25.0 aMW	20.4 aMW		26.7 aMW	
Portland General Electric	(96,706 MWh)	(218,622 MWh)	(178,301 MWh)	123%	(233,892 MWh)	93%
	11.6 aMW	19.5 aMW	13.4 aMW		17.0 aMW	
Pacific Power	(101,164 MWh)	(171,225 MWh)	(117,230 MWh)	146%	(148,920 MWh)	115%
	2,071,791	4,208,263	2,857,594		2,936,000	
NW Natural	annual therms	annual therms*	annual therms	147%	annual therms	143%
	185,316	366,595	379,960		317,937	
Cascade Natural Gas	annual therms	annual therms	annual therms	96%	annual therms	115%

<sup>\*</sup>NW Natural Industrial DSM Pilot savings are counted toward the annual conservative goal for NW Natural. They are not counted toward the annual IRP goal for NW Natural.

## 6. Incremental levelized costs of utility SB 838 expenditures

					YTD		
	Q4	Expenditures	Υ	TD Expenditures	\$M/aMW*	YTD	Levelized Cost*
PGE	\$	146,489	\$	455,033	\$ 0.02	\$	0.02
PAC	\$	291,296	\$	549,476	\$ 0.03	\$	0.04
Total	\$	437,786	\$	1,004,509	\$ 0.02	\$	0.03

<sup>\*</sup> Reflects incremental increase in costs derived from expenditures incurred by Pacific Power and PGE under terms of the agreement described in SB 838. See Appendix 1 for a report from these utilities on their SB 838 activities during the quarter.

Appendix 1

NW Natural Industrial Demand-side Management Program Results

Table 1. 2010 Q4 and year-to-date savings and expenditures

	Q4 annual therms saved	YTD annual therms saved	Q4 expenditures	YTD expenditures	YTD \$/therm	YTD levelized cost
Existing Buildings						
Firm	30,196	130,150	\$61,472	\$212,057	\$1.63	16¢
Interruptible	100,097	127,042	\$247,737	\$381,103	\$3.00	20¢
Production Efficiency						
Firm	283,285	285,774	\$458,528	\$645,903	\$2.26	28¢
Interruptible	0	44,290	\$0	\$120,743	\$2.73	36¢
Totals						
Firm	313,482	415,924	\$520,000	\$857,959	\$2.06	24¢
Interruptible	100,097	171,332	\$247,737	\$501,847	\$2.93	22¢
Grand Total	413,579	587,256	\$767,737	\$1,359,806	\$2.32	22¢

Table 2. Q3 2009-Q4 2010 cumulative savings and expenditures

	Incentives paid	Total expenditures	Annual therms saved	Weighted average measure life	\$/therm	levelized cost
Existing Buildings			Javoa	measure me		
Firm	\$135,895	\$230,895	134,108	14.9	\$1.72	17¢
Interruptible	\$239,689	\$407,249	128,712	28.8	\$3.16	21¢
Production Efficiency						
Firm	\$419,631	\$712,984	291,490	10.9	\$2.45	30¢
Interruptible	\$103,231	\$175,398	59,267	10.0	\$2.96	39¢
Totals						
Firm	\$555,526	\$943,879	425,598	12.1	\$2.22	25¢
Interruptible	\$342,920	\$582,646	187,979	22.9	\$3.10	24¢
				·		
Grand Total	\$898,447	\$1,526,525	613,577	15.0	\$2.49	24¢

## Appendix 2

## Q4 2010 Utility Activities Supported by SB 838-authorized Funding

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

## 1. Pacific Power SB 838 Energy Efficiency Activities and Results Q4 2010

(for submission with Energy Trust Quarterly Report)

#### SB 838 General

- Pacific Power's Energy Trust liaison participated in several meetings and discussions regarding governor Kitzhaber's desire to quickly implement energy efficiency projects in K-12 schools. The desired timeline is to get "boots on the ground" during summer 2011. Several school financing mechanisms are under discussion. Pacific Power will continue to be involved in these discussions and will also work with Oregon Department of Energy to ensure that schools are aware of the energy efficiency incentives that are available to them.
- In early December, Clean Energy Works Oregon (CEWO) confirmed that they have received \$3.5m in Oregon Department of Energy funding to put toward a statewide rollout of energy efficiency financing that will require on-bill repayment from utilities. CEWO has asked to begin contract negotiations and expects to rollout programs throughout Oregon in Q1 2011. Participant communities include: Astoria, Hood River County, Lake/Klamath Counties, Corvallis, Jackson/Josephine Counties, Pendleton, Deschutes County, Coos County, and Lane County. CEWO has also indicated they expect to pull in Clean Energy Works Portland so all programs are working under the same umbrella. A key component of moving forward is that Pacific Power has asked CEWO to be the only party to contract with to avoid multiple party contracts with different parameters and expectations across the state. Pacific Power expects CEWO to be the only entity that we will remit customer payments to as well as back bill for utility administrative costs. Pacific Power expects CEWO to distribute customer payments and manage administrative costs uniquely to the multiple banks and jurisdictions. Pacific Power's Energy Trust liaison continues to be the main contact for this work.
- Pacific Power's Energy Trust liaison participated in the EEAST rulemaking advisory meetings convened by the Oregon Department of Energy.
- Pacific Power's Energy Trust liaison attended the Conservation Advisory Council meetings.

## **SB838 Commercial efficiency programs**

- Pacific Power's Energy Trust liaison continued to manage a coordinated effort with Oregon Main Street, Energy Trust, Oregon Department of Energy and U.S. Department of Agriculture to look at small to mid-size commercial retrofit opportunities throughout the Oregon Main Street communities in spring 2011. The project has been well received and participants are looking forward to a localized effort to promote energy efficiency in the "downtown" environment.
- Pacific Power's Energy Trust liaison completed the RFP contracting process for Field Energy
  Consultant services to be located in and primarily focus on Southern Oregon. The Field Energy
  Consultant's scope of work encompasses: Deliver reliable, dependable and exceptional customer
  service; Proactively develop, manage and expand relationships with Pacific Power small- to mid-size

commercial customers; Document and maintain records and report on customers contacted, dates, and outcomes; Develop community-based energy efficiency grant opportunities; Participate in and facilitate meetings with a variety of Pacific Power customer audiences; Provide on-site support for Energy Trust's "Do It Yourself" energy audit; Provide information on Energy Trust program services and incentives, guiding customers into programs and working with Energy Trust to help facilitate customer involvement; Provide energy outreach to customers, encouraging new customers, deepen the savings from sites and helping speed the adoption of energy efficient practices; Represent Pacific Power and the Energy Trust of Oregon, including the vendor neutral aspects in an accurate, positive professional manner; Maintain working knowledge of current Energy Trust of Oregon and Pacific Power energy efficiency programs; Provide a seamless handoff, deliver project leads to applicable Energy Trust of Oregon program managers; Prepare concise written reports, such as initial site visit reports and post-handoff reports, including suggestions for process improvements as per the requirements and formats provided and updated by Pacific Power and/or Energy Trust of Oregon; and, Participate as required in regular consultant review meetings. Through Q4 2010, Pacific Power's Field Energy Consultant has performed 252 contacts resulting in:

- o 24 completed onsite facilitated "Do It Yourself" energy audits
- o 21 scheduled onsite facilitated "Do It Yourself" energy audits
- o 29 project referrals to Energy Trust programs
- o 26 project referrals to Energy Trust trade allies
- 18 referrals to Energy Trust website
- 134 phone calls to remind commercial customers about the energy efficiency resources available to them
- During October through December, co-branded print ads ran in Southern and Central Oregon focusing on energy saving measures facilitated by Energy Trust incentives and rebates. Print ad titles included "Brighten Your Bottom Line."
- Welcome Aboard kits continued to be mailed to all new commercial customers. The kit contains
  information on Energy Trust programs and incentives to help customers invest in energy efficiency.

## **SB 838 Industrial efficiency programs**

In November, Pacific Power coordinated and co-hosted the Central Oregon Irrigation & Agriculture Energy Efficiency Forum in Redmond, Oregon. With over 125 registrations, customers attended from as far away as Klamath Falls and Pendleton. Topics included: Production Efficiency (hosted by Energy Trust of Oregon), Scientific Irrigation Scheduling, Rural Energy Audits, U.S. Department of Agriculture Rural Energy for America Program (REAP), and Oregon Business Energy Tax Credits. Feedback was very positive including the speakers, the breadth of information provided and keeping on time with the agenda. Attendees noted that a future improvement to a forum of this nature will need to include real customer examples/testimony of the process that they went through to get their energy efficiency project kicked off and completed. Ninety-eight percent of attendees indicated they would recommend the forum to others.

## SB 838 Residential efficiency programs

 Pacific Power was very pleased with the success of the 2010 Home Energy IQ series held in October and November. Co-hosted with Energy Trust of Oregon, sessions were held in Portland, Bend, Pendleton, Hood River, Klamath Falls, Grants Pass, Medford, Albany, Astoria, Lincoln City, Roseburg and Coos Bay, Oregon. Pacific Power received over 1,100 online registrations and nearly 800 attendees. More than 500 energy saver kits were delivered during the sessions that included compact fluorescent lights, a low-flow showerhead and faucet aerators. Additionally, over 250 customers signed up for a 1-hour free home energy review. Customers were very satisfied with the workshops and were appreciative of the materials provided, the speakers, the "do it yourself" energy efficiency projects and where to go for incentives and rebates for larger projects. At future workshops, customers would like to see more information on renewable energy, particularly solar. Ninety-six percent of attendees indicated they would recommend the workshop to others.

- In October, a bill insert promoting Energy Trust heat pump incentives was delivered. "There's a better way to stay warm this winter. Upgrade to a premium-efficiency heat pump in 2010, and cash in on a federal tax credit before it expires. Add in a state tax credit and incentives from Energy Trust of Oregon, and you can save up to \$3,265."
- The October issue of Voices newsletter featured an article titled, "Old Fridge? Recycle it and get \$50." The article focused on reducing saving energy by switching to an ENERGY STAR model and provided information on how to contact Energy Trust for a free pick up of old refrigerators and freezers.
- The November/December issue of Voices newsletter featured an article titled, "Put a new twist on lighting." The article focused on saving energy by switching to compact fluorescent lights and provided information on how to contact Energy Trust for participating retailers.
- The article focused on reducing saving energy by switching to an ENERGY STAR model and provided information on how to contact Energy Trust for a free pick up of old refrigerators and freezers.
- During October through December, co-branded radio spots ran in Southern and Central Oregon focusing on energy saving measures facilitated by Energy Trust incentives and rebates. Radio titles included "Refrigerator Recycle," "Home Energy Review," and "Upgrade Appliances." Co-branded Trail Blazers Radio energy efficiency spots began running in December.
- During October through December, co-branded print ads ran in Southern and Central Oregon focusing on energy saving measures facilitated by Energy Trust incentives and rebates. Print ad titles included "Outlets," "Kilowatts," and "Home Sweet Home."
- During October through December, co-branded television spots ran in Southern and Central Oregon focusing on energy saving measures facilitated by Energy Trust incentives and rebates. Commercial titles included "Washing Machine," "Cutting Kilowatts," and "Home Sweet Home."
- Welcome Aboard kits continued to be mailed to all new residential customers. The kit contains information on how Energy Trust helps Pacific Power customers manage their energy costs and benefit from renewable energy.

# 2. <u>Portland General Electric SB 838 Energy Efficiency Activities and Results Q4 2010</u> (for submission with Energy Trust Quarterly Report)

#### **Commercial and Industrial**

PGE's Business Connection e-newsletter is emailed to approximately 15,000 business customers bi-monthly. The October issue featured Energy Trust's Multi-Family bonus incentive; 28 customers clicked through for more information. The December issue featured the Tigard Village Inn restaurant case study; 28 customers also clicked through from that article for more information.

PGE's third fall "Save More, Matter More" (SMMM) campaign launched September 15 and ran through November 15. Energy Trust and PGE worked together to improve the campaign, reducing barriers and increasing participation rates. The call to action was changed from "make a pledge" to "sign up for a free energy consultation" (delivered by a PGE Outreach Specialist), reducing barriers and increasing participation rates. PGE added inbound call scripting and outbound calling from our contact center and outreach through Green Mountain Energy business reps (who sell PGE's renewable power program). Online advertising was also added.

## **Measurable Results**

Save More, Matter More (SMMM) results exceeded our goals.

SMMM Activities	SMMM Results
SMMM Web Page Hits	1,787
"Card your lights" video demonstrating	141
how to use the mailed card played	
Sweepstakes entries for \$3,000 energy-	332
efficiency retrofit	
Request for free energy efficiency	659
consultation from web pages	
On-line advertising sweepstakes entries	50
On-line advertising energy efficiency	140
consultation request	
SMMM qualified leads delivered to Energy	116
Trust	

## **Commercial Energy Efficiency Field Outreach**

Key Objectives	Results 10/1/2010 to 12/28/2010
Increased Awareness of Energy Trust	21
Programs - Outreach Presentations	
Increased Participation-Qualified Leads	77
delivered to Energy Trust	
Increased Awareness of Energy Trust	1797
Programs-Number of Customers	
Contacted by	
• Phone	
• Email	
<ul> <li>On-site Consultations</li> </ul>	
Outreach Presentations	

## **Outreach Presentation Organizations and Events**

PGE Outreach Specialists made the following presentations to customers in the fourth quarter.

Main Street Conference

Silverton Chamber Forum

Cedar Mill Business Association

Hillsboro Chamber

Latino Small Business Conference

Keizer Chamber Luncheon (2)

North Salem Business Association

**Commercial Leasing Seminar** 

Happy Valley Business Alliance

Hillsboro Chamber Luncheon (2)

Tualatin Chamber Business Showcase

Sandy Chamber Luncheon

Cornelius Chamber Luncheon

Wilsonville Chamber

Salem Leadership Energy Panel

Silverton Merchants Meeting

Tualatin Chamber Luncheon

Molalla Area Chamber Luncheon

Sherwood Chamber Breakfast

- PGE created 30,000 impressions (articles' distribution) among business customers for Energy Trust through its newsletters.
- In the fourth quarter, customers selected links from PortlandGeneral.com to Energy Trust's business web pages 80 times.

## Residential

PGE ran television advertising: "Energy Efficiency Icons," "Turn down your water heater" and "Seal up and Save" in November and December on cable news channels, local news programs and popular network shows.

PGE's residential customer newsletter, Update, is sent monthly to 625,000 customers in their PGE bills. October Update featured heat pumps, and November Update featured a heat pump tune-up incentive.

PGE continued to support Energy Trust's Energy Saver Kit promotion (free CFLs, showerhead and faucet aerators) with an additional direct mail to 49,128customers in October. Through year end, 36,875 kits were requested.

PGE also supported Energy Trust's "Savings within Reach" program with a direct email to 11,359 lower income electrically heated customers in October.

PGE recruited customers for Energy Trust's "Home Energy IQ" presentation with direct email to 4,656 customers. Four events were held, one in Portland, one in Hillsboro and two in Salem. Over 60 customers attended, with 30 requesting a Home Energy Review, and 53 taking home an Energy Saver Kit.

PGE is now providing on-bill repayment services to over 50 Clean Energy Works Portland customers.

PGE is participating with Energy Trust and Northwest Natural in an OPower pilot. The company is now sending customer data to OPower, and PGE has supported communications planning. First letters are to be mailed in January, 2011 and continue bi-monthly for the year.

In the fourth quarter, 1500 customers "clicked through" from PortlandGeneral.com to residential portions of EnergyTrust.org. PGE's call center transferred 99 customers to Energy Trust call centers during the fourth quarter.

## Measurable Results

- 762 customers have used the PGE promotion code while recycling their refrigerator through November 2010. 9,699 total refrigerators have been recycled through November 2010 in PGE's service territory.
- 36,875 Energy Savers kits were requested by PGE customers from direct marketing.
- 3,936 high performance showerheads have reached residential customers through PGE's plumber network and retail partner George Morlan.
- PGE created 5,959,000 impressions for Energy Trust through its newsletters and direct promotions.

## Appendix 3

# **NEEA Q4 2010 Summary Report for Energy Trust of Oregon**



# Q4 2010 Summary Report for Energy Trust of Oregon

## Major shifts in programs

- NEEA continues to increase collaboration efforts. At the invitation of Energy Trust of Oregon, NEEA's Northwest Ductless Heat Pump Project staff participated in meetings and discussions about modifications to its 2011 program objectives.
- NEEA is coordinating with the Energy Trust to facilitate transition of NEEA's Healthcare Market and Strategic Energy Management for Healthcare efforts.

## **New initiatives**

NEEA's new Commercial Lighting Solutions initiative will bring to market simplified lighting design
tools and educational offerings for electrical contractors, distributors, and manufacturer
representatives who serve the bulk of the Northwest's smaller and mid-sized lighting retrofits. The
primary intent of this initiative is to prepare the market for utility-incented projects.

### Innovation

- NEEA's Emerging Technologies group is collaborating with the Northwest Food Processors Association (NWFPA) to develop a refrigeration initiative to support its energy intensity reduction goal of 25 percent in 10 years. The initiative will support introduction of new refrigeration technologies and dissemination of refrigeration best practices among NWFPA membership.
- Through its Consumer Electronics initiative, NEEA helped increased market availability of "super-efficient" televisions, desktop computers and monitors with major "big box" retailers. In collaboration with Energy Trust and other partners, NEEA provided "upstream" incentives to encourage retailers to carry and promote super-efficient TVs while providing new "Energy Forward" labeling to help customers identify the most efficient products. NEEA's Energy Forward campaign launched October 2010. In Oregon in Q4, NEEA delivered 241 retailer visits, trained 325 sales associates, and provided point of purchase materials for 2158 TVs. With initiative partners, NEEA helped produce a promotional video that loops eight times daily on TVs displayed in Oregon Costco locations through Feb. 6. The campaign includes a regional press release, Facebook social media support kits, and in-store materials.

Market share for super-efficient TVs has surged 15 percent since launch of the Consumer Electronics initiative in 2009. In partnership with California and Midwest utilities, NEEA presented the TV initiative to retailers and manufacturers at the ENERGY STAR Partners Meeting in Denver, Colorado.

**NEEA**, partnering with California and Nevada utilities, submitted letters in support of advancing the date ENERGY STAR 5.1 is effective. NEEA and partners also provided final comments on Set-Top-Box Version 3.0/4.0, and submitted a request to align ENERGY STAR Top Tier with the NEEA 2011/12 TV specification.

- Through the Northwest Ductless Heat Pump (DHP) Project, NEEA and its partners helped increase market capacity to deliver DHPs. In Q4, NEEA supported increased contractor training in Energy Trust's service territory and piloted a new training approach with Mitsubishi at four events. NEEA partnered with Energy Trust to highlight best practice installations and develop a Master Installer program. NEEA also coordinated with Energy Trust to include it in the Project's Quality Assurance process in 2011, after Energy Trust opted out in 2010. NEEA increased radio plays of a public service announcement during the cooling season campaign in Energy Trust's service territory.
- To increase adoption of Continuous Energy Improvement (CEI) by industrial manufacturers, NEEA continued its engagement with six Oregon food processing facilities served by three utilities. NEEA's goal is to ensure persistent savings by these CEI practitioners, which represent roughly seven percent of the Northwest food processing market.
- As a result of NEEA's new Small and Medium Business Energy Management initiative, the Ore.
   Manufacturing Extension Partnerships is actively integrating energy efficiency into its productivity
   offerings. Additionally the Ore. Assoc, of Nurseries met with members, trade allies and suppliers to
   begin developing its roadmap to achieve 25 percent industry energy reduction in 10 years.
- NEEA's Commercial Office Real Estate initiative launched the "Carbon4Square" challenge, in partnership with BOMA Portland, the City of Portland and Metro. Carbon4Square is a sustainability initiative challenging the Portland commercial real estate market to reduce costs and environmental impacts from the region's buildings. Over 35 buildings have signed up; registration ends Jan. 31.
- NEEA joined the steering committee for the Office of the Future Project, led by the New Buildings Institute. This is a national effort by utilities to build program strategies related to the tenant improvement cycle in commercial buildings. The consortium will create and implement integrated design strategies that improve energy performance and reduce operating costs for existing, multi-tenant commercial offices.
- The inaugural meeting of the Oregon Energy Codes Collaborative was held in December, intended as an ongoing forum where Oregon stakeholders can discuss and make plans for codes and standards-related issues. The Energy Trust, NEEA, PNNL, Ore. Building Codes Division, PECI and several contractors attended. A second meeting is scheduled for January.
- Through its Codes and Standards focus, NEEA collaborated with the Energy Trust and Oregon Building Codes Division to develop code training curricula for design and construction professionals. Additionally, Energy Trust and NEEA are developing a methodology to help ensure that all savings from new or enhanced codes are accounted for.
- NEEA market research and evaluation reports underway include an evaluation of the 2010 NEEA
  consumer electronics television initiative by EMI; a baseline evaluation of Northwest televisions by
  ECO; and a market characterization report by Research in Action. Final reports will be found on
  www.neea.org.

## **Major market trends**

- Regional interest in existing building renewal grows as several large building owners seek
  information about pilot participation in NEEA's Deep Energy Renovation strategy.
- Across multiple sectors, sustainability and efficiency conversations are beginning to center around the concept of districts. Examples include Portland Eco-districts and Seattle's 2030 District.
- Industrial companies seeking to reduce energy intensity are leveraging utility incentives as both a first step and standard business practice to support their efforts.
- Northwest ENERGY STAR® Homes market share for Oregon is 8.6 percent through November, 2010. NEEA's Efficient Homes initiative provided support in Q4 for HVAC sizing and HVAC design for ducts inside conditioned space for key builders. The regional initiative has been effective in softening the ground for code changes in Oregon (2008), Washington (2011), Idaho (2011) and Montana (2010). The estimated media value obtained in Oregon in 2010 through various co-promotion activities with Earth Advantage was \$95,600.

Questions or comments? Contact Aaron Cohen, Corporate Communications, (503) 688-5480, acohen@neea.org

Appendix 4

Home Energy Reviews and Solar Energy Reviews in Q4 2010

Service Region	HERs Completed	SERs Completed	Total
1 - North Coast (Astoria)	34	1	35
2 - South Coast (Coos Bay, North Bend)	18	0	18
3 - Portland Metro	1,355	16	1,371
4 - Mid-Willamette (Salem, Dallas)	214	2	216
5 - Southern Willamette (Eugene, Corvallis, Albany)	154	2	156
6 - Southern (Medford, Roseburg, Grants Pass)	144	3	147
7 - Columbia Basin (Hood River, The Dalles)	7	0	7
8 - Central (Bend, Redmond, Prineville)	153	0	153
9 - Klamath Basin (Klamath Falls, Lakeview)	25	1	26
10 - Northeast (Pendleton, Enterprise)	57	2	59
11 - Eastern (Baker City, Ontario, Vale)	3	0	3
Total	2,164	27	2,191

## Appendix 5

# **Energy Trust of Oregon 2009-2010 Annual Report NW Natural Washington Pilot**

January 15, 2011

#### From the Executive Director

On behalf of the Energy Trust of Oregon, I am pleased to submit this annual report on our first pilot year offering energy-efficiency services and incentives to NW Natural customers in Washington State.

Energy Trust is grateful for the opportunity provided by NW Natural and the Washington Utilities and Transportation Commission to conduct this pilot. We look forward to discussing first year results with you and with the Energy Efficiency Advisory Group overseeing these activities.

As Energy Trust outreach efforts ramped up, hundreds of Southwest Washington residents and businesses responded. Collectively, these first-year participants have saved more than 120,000 annual therms of natural gas. Nearly two-thirds of these savings were counted during the final quarter of the year, as the pilot began hitting its stride.

In addition to energy savings acquired from efficiency projects, Energy Trust incentives injected over a quarter million dollars into the local SW Washington economy, helping strengthen business for the 132 trade ally contractors. This includes 40 contractors based in Washington state, nearly one-half of whom were recruited by Energy Trust specifically to serve customers since the pilot began.

Results were particularly strong among commercial businesses and public institutions. Energy-efficiency upgrades in businesses and schools accounted for 70 percent of total savings, representing a range of small- to medium-scale investments in equipment and insulation. A much greater number of residences than businesses participated, reaping twin benefits of greater comfort and lower energy costs.

Overall, we believe the first pilot year was a success. Energy Trust achieved the gas savings and cost ranges determined by NW Natural and established in goals. We also met targets for cost effectiveness. Our experience building key partnerships with Clark County and others to deliver integrated energy-efficiency resources to customers proved to be very gratifying and effective. We were also pleased to expand our Trade Ally Network and help build a strong and competent workforce in Washington.

Importantly, our research shows high levels of customer satisfaction with the pilot program. Among commercial customers responding to a post-installation survey, every commenter expressed a high level of satisfaction with overall program experience. Eighty-five percent of residential customers responding were highly satisfied, and none was dissatisfied.

While the research is illuminating, it is refreshing to hear directly from our customers. Mark Ickert, owner of Custom Care Valet Dry Cleaning in Vancouver, wrote to our staff to share "an exciting moment" when he opened his gas bill after replacing several underperforming steam traps. He found the bill "down over \$1,000 from what it had been running" and his "average therms per day usage was down 47 percent from the same period last year."

Saving customers energy, reducing energy costs, improving performance and the bottom line—energy efficiency is a win-win for us all. We look forward to further results from the pilot evaluations and a decision on continuing services in 2012 and beyond.

Thank you again for this opportunity to serve NW Natural Washington customers.

Very sincerely,

Margie Harris
Executive Director

## **Report to NW Natural**

October 1, 2009, through September 30, 2010

This report covers the period 10/1/09 through 9/30/10, the NW Natural Washington Pilot program year. It addresses progress toward goals for the pilot year of the NW Natural energy-efficiency program in Washington. It also includes information on revenues and expenditures, number of completed projects and incentives paid during the pilot year, along with highlights of program activity.

### I. BACKGROUND AND GOALS

## A. Background

At the request of NW Natural and following approval 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. During the first year, Energy Trust offered a number of prescriptive gas measures to NW Natural residential and commercial customers through its Existing Homes and Existing Buildings programs. On July 1, 2010, Energy Trust began delivering its New Homes program, which offers incentives to builders for new homes that meet ENERGY STAR® requirements.<sup>5</sup>

## B. Overall pilot goals

General goals for the pilot include:

- 1. Broaden gas savings opportunities for customers of NW Natural in Washington.
- 2. Penetrate a new market quickly with programs based on successes in Oregon.

<sup>&</sup>lt;sup>5</sup> Energy Trust began offering the New Homes program in the pilot year's fourth quarter, triggered by two successive quarters of more than 200 new home starts in Clark County, Washington. Because of the late start, costs and savings related to this program are not included in the data driving this annual report. They can be found in Appendix 3.

3. Reach savings goals by primarily leveraging prescriptive incentive offerings.

The WUTC established specific performance metrics for the first pilot year. This report presents Energy Trust performance against those metrics (see page 11).

## C. Oversight

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

#### D. Timeline

The NW Natural Washington pilot was required to operate for at least 12 months, from October 1, 2009, through September 30, 2010, with the possibility of extension. NW Natural has commissioned a benchmarking study by Navigant Consulting to compare costs and results of Energy Trust services in Washington to those of other Washington gas utilities. The study will inform a recommendation by the Energy Efficiency Advisory Group and ultimate decision by the WUTC regarding whether Energy Trust should continue delivering NW Natural's energy-efficiency programs in Washington. The advisory group's recommendation will be filed no later than May 25, 2011.

#### **II. ANNUAL REPORT HIGHLIGHTS**

## A. General

Overall, the first pilot year was a success. Energy Trust met the savings and cost goal ranges agreed to by the EEAG and established in NW Natural's Energy Efficiency Plan. Energy Trust delivered cost-effective energy savings results and stayed within budget. We established relationships with key collaborators to support delivery of integrated energy-efficiency resources to customers. Energy Trust's Trade Ally Network grew to include a Washington-based trade ally force. The prescriptive model delivered in Washington followed Energy Trust's program model in Oregon, offering a diverse range of measures to customers. Commercial savings dominated the pilot, with a few key projects achieving significant savings. While residential results were lower, Energy Trust employed a number of strategies to influence homeowner decision-making and capture residential opportunities as the program continues.

## **Overarching strategies**

- Repeated outreach to the Trade Ally Network helped gain market share and build awareness of Energy Trust's offerings for NW Natural's Washington customers.
- Free Home Energy Reviews were offered to attract residential customers.
- Direct outreach at SW Washington events and community fairs raised awareness of Energy Trust offerings.
- Coordination with public utilities and municipalities leveraged federal funding and community initiatives around energy efficiency to benefit the pilot.

## **Accomplishments**

- Uptake was slow during the pilot's initial months, and as awareness of Energy Trust incentives took hold in the market, the number of applications and completed projects grew.
- The fourth quarter was the most productive, as key commercial projects were completed.
- The 120,897 annual therms saved during the year is well within the goal range of 97,500-130,000 annual therms.
- Annual expenditures of \$527,040 was below budget.
- The pilot achieved five of the six performance metrics established by the WUTC, falling short in percentage of spending on incentives—a result of achieving projected savings at lowerthan-budgeted cost.<sup>6</sup>
- Energy Trust developed relationships with Washington organizations to expand the program's reach, including Clark County, Clark Public Utilities and the economic development departments of Clark, Klickitat and Skamania counties.
- During the first few months, approximately 65 trade allies became active in Washington.
   Currently, 132 trade allies serve the Washington territory. Of those 132, 40 trade allies are based in Washington.
- The pilot experienced high customer satisfaction rates, according to surveys conducted upon project completion. All commercial customers who responded expressed high levels of satisfaction. Eighty-five percent of residential respondents were highly satisfied with the program, and none reported dissatisfaction. See Appendix 4.

#### B. Commercial sector

- Efforts in the commercial sector targeted restaurants and other foodservice providers, hospitality/lodging, large commercial and institutional facilities, and government and municipal buildings, as well as small commercial customers. The most responsive participants were restaurants, dry cleaners and school districts.
- Marketing, direct sales, product promotions, leveraging existing relationships and expanding
  the Trade Ally Network all contributed to the overall success of the commercial program. With
  a total of 83,945 annual therms saved from 27 completed projects, the commercial sector
  carried the pilot into the overall annual goal range.
- Most of the commercial projects were located in the Vancouver area. One project was completed in Ridgefield and two projects in Camas.
- Relatively low-cost measures such as insulation and steam traps were offered to attract new customers. Efforts focused on sectors with known funding sources, such as K-12 schools.
- The steam trap promotion was tailored especially for the Southwest Washington market. Outreach specialists tested 145 steam traps<sup>7</sup> at dry cleaning establishments and identified 60 that had failed. Businesses replaced 30 of these during the pilot year, saving over 5,000 annual therms, with more replacements in progress.
- Marketing and networking throughout the year built awareness of Energy Trust and NW
  Natural incentives. For instance, Energy Trust collaborated with the Vancouver and Camas
  chambers of commerce on articles in their newsletters. Building outreach specialists attended

<sup>&</sup>lt;sup>6</sup> Fixed costs for program set up and service delivery remained roughly constant, while incentive amounts necessary to achieve savings goals were less than projected.

<sup>&</sup>lt;sup>7</sup> A steam trap is a valve that releases condensed gases (and non-condensable gases) without losing live steam.

- networking events hosted by the Vancouver Chamber of Commerce, Vancouver Green Drinks and the Association of Vancouver Retirement Communities.
- Measures responsible for the bulk of the savings were insulation, radiant heating and boilers.
   Eight boiler projects were completed, most of them serving schools. Appendix 1 details measure counts and associated savings.

#### C. Residential sector

- The residential sector offerings were designed to attract a wide range of participants.
- Initial research identified key building characteristics of SW Washington homes home type, overall performance and differences in code and building envelope—to create a basic understanding of the residential housing stock.
- As the program grew, the need for additional analysis to identify residential customer segments became evident. For example, Washingtonians with expendable income own newer homes, while Oregonians with expendable income tend to occupy older homes. We are exploring these and other differences to inform our program design strategies for 2011.
- The residential program achieved total savings of 36,952 annual therms. While the timing of start-up in fall 2009 meant the program could not fully tap the heating season demand, it continued to produce results during the warmer months of summer and early fall.
- Owners of 355 single-family homes installed one or more incentivized measures. The
  program completed 282 Home Energy Reviews. Of the homes receiving reviews during the
  pilot's first six months, nine percent went on to install at least one measure during the
  remainder of the pilot year.
- The largest share of residential energy savings—15,805 annual therms—came from highefficiency gas furnaces. Over 220 furnaces were installed. The program also delivered 44 tankless water heaters and 38 ceiling/attic insulation projects.
- The majority of customers saved from 30 to 100 annual therms, mostly from gas furnaces and tankless water heaters.
- Homeowners were reached throughout the year by bill inserts, advertising in *The Columbian* and Energy Trust presence at local events. In June, 40,000 Washington customers received information about a \$150 gas bundle bonus (extra payment for combining any insulation measure with air sealing), and in July, 241 Washington Home Energy Review recipients received information about the bundle offer.
- Throughout the year, Energy Trust was present at a number of events encouraging home owners to sign up for Home Energy Reviews and take action. Energy Trust attended the Clark PUD Home & Garden Idea Fair, Vancouver Parks & Recreation Earth Day, Klickitat Home & Garden Show and the Clark PUD Energy Fair.

## D. Trade Ally Network

- Responding to Energy Trust outreach, the Trade Ally Network serving Washington customers experienced growth throughout the year.
- In early May, Energy Trust sent letters to 1,900 targeted Washington-based contractors, inviting them to join the Trade Ally Network and explaining how doing so would benefit their businesses.

- During the year, the program estimated a total \$1.1 million<sup>8</sup> in revenue for Washington contractors serving residential customers, and \$1.4 million for all residential contractors, including those based in Oregon.
- Eighteen new Washington contractors joined the Trade Ally network during the pilot year.

#### E. Lessons learned

Following is a summary of lessons learned over the course of the pilot's first year that are informing plans for 2011:

- While trade allies are important market resources, not all trade allies are equally active in the marketplace. In 2011, Energy Trust will continue expanding the network, utilizing a trade ally account manager approach to ensure constant communication and strong relationships with trade allies.
- Most residential measures installed during the Washington pilot year were replacement
  measures—new high-efficiency gas furnaces and tankless water heaters. A recent internal study
  finds the median age of a house in Southwest Washington is about 22 years, built in 1988. This
  time period equates to the approximate expected life of a furnace or water heater. For 2011,
  Energy Trust will continue targeting homes of this age as good candidates for equipment
  replacement.
- The commercial sector had a larger appetite for energy-efficiency measures than anticipated.
   Consequently, the budget for 2011 reflects the savings potential in the commercial area and establishes a more realistic savings goal for the residential sector. The pilot has gained market awareness, and both programs are expected to grow next year.
- The recession has had a deep impact in Southwest Washington. Energy Trust staff observed
  hesitancy in the business community to move forward with large-scale energy-efficiency projects.
  The pilot therefore promoted lower cost measures such as insulation and steam traps, a strategy
  that proved successful and is being continued in 2011.
- The economy also negatively impacted the commercial foodservice sector. When they do
  purchase equipment, many restaurants are buying high-quality used equipment, which is now
  readily available. Energy Trust will leverage its existing relationships with corporate chains,
  developed through work in Oregon, to reach their foodservice businesses in Washington.
- Both commercial and residential customers reacted positively to highly engaged and focused services from Energy Trust. For 2011, Energy Trust is employing a number of customized services for homeowners to support them in making sound energy efficiency decisions for their homes. In addition, Energy Trust is adding a custom track for commercial customers to support implementation of building control measures.
- Energy Trust has commissioned a process evaluation of the NW Natural Washington pilot. The
  independent firm Research Into Action interviewed Energy Trust staff, program management
  contractors and trade ally contractors to develop recommendations to strengthen program
  delivery. Preliminary findings point toward refining marketing strategies and continuing to recruit
  Washington-based trade allies.

<sup>&</sup>lt;sup>8</sup> This number is based on the installed cost per project completed in the residential sector.

#### **III. REVENUES AND EXPENDITURES**

## A. Start-up expenditures

Table 1 shows costs incurred during the pilot's planning phase in 2009, prior to start of the pilot. These expenditures came in below budget. The unspent amount, \$48,067, was made available as revenue to the pilot.

Table 1: Start-Up Expenditures

Title	Total Start-Up Expenditures	Start-Up Budgeted Revenue			
Start-Up Costs	\$ 101,933	\$ 150,000			

#### B. Revenue

Table 2 shows revenue received from NW Natural to support the pilot. The amount received was higher than budgeted, reflecting the addition of unspent start-up funds. Total revenue received during the program for the Existing Homes and Existing Buildings programs equaled \$815,000. With the addition of start-up costs carried forward, the pilot year received a total of \$863,067.

Table 2: Revenue Received

	Revenue Received		Start-Up Carry Over	Total Revenue		
NWN WA	\$ 815,0	00 \$	48,067	\$	863,067	

## C. Expenditures

Table 3 depicts the annual expenditures spent by program type. Energy Trust achieved targeted therm savings at a lower cost per annual therm, thus spending less than budgeted. Spending in the two sectors is roughly even, while the budget allocated 60 percent of anticipated costs to the residential program and 40 percent to the commercial program.

The variance in the budget is due to a few key factors. First, the slow uptake in the residential market and launch during the heating season reduced amounts spent. Second, savings were dominated by the commercial sector, and the average levelized cost of the commercial sector was \$0.20 per therm, securing lower cost savings than anticipated. The residential sector average levelized cost was equal to \$0.51 per therm.

Table 3: Annual Expenditures

Туре	Actual Annual	Budgeted Annual
	Expenditures	Expenditures
Residential		
Existing Homes	\$258,378	\$525,525
Commercial		
Existing Buildings	\$268,661	\$342,911
Total	\$527,039	\$868,436

#### IV. ANNUAL RESULTS

## A. Washington Utilities and Transportation Commission Performance Metrics

Table 4 shows the pilot's performance compared to metrics established by the WUTC. Energy Trust achieved five of the six metrics established for the pilot year. Percentage of incentives paid compared to total spending fell eight points below the 60 percent metric, reflecting the impact of slow customer uptake during the start-up months along with the fact that more low-cost and low incentive measures were installed than expected.

With respect to the 60 percent incentive spending metric, Energy Trust hopes to use information gathered in the Navigant Consulting benchmarking report to understand what "program costs" are included in other utilities' percentages. Energy Trust program costs, which include legal, customer service, call centers, IT and marketing, are ratepayer costs that may not be attributed to the utility programs. Energy Trust is unsure if adjusting program costs down by 15 percent, as agreed to for the pilot year, is sufficient to cover non-incentive costs.

Table 4: Annual Results Compared to WUTC Performance Metrics

		Q1 Q2		Q3	Q4		
Metrics	Goal	Results	Results Results		Results	Total	
Therms saved	97,500 – 130,000	7,811	20,086	16,160	76,840	120,897	
Total program costs	\$780,000 – 1,040,000	\$52,721	\$ 64,576	\$ 118,624	\$ 290,000	\$ 525,921	
Average levelized cost per Measure	Not to Exceed \$0.65	\$ 0.48	\$ 0.20	\$ 0.51	\$ 0.25	\$ 0.28	
Dollars spent per therm saved	Less Than \$8	\$ 6.73	\$ 3.21	\$ 7.34	\$ 3.83	\$ 4.35	
% of paid out incentives to total dollars spent*	At Least 60%	42%*	57%*	38%*	60%*	53%*	
Utility Cost**	Greater than 1.0					3.41	
Total Resource Cost**	Greater than 1.0					1.81	

<sup>\*</sup>Percent of incentives is calculated using the adjusted program expenditures, where total program expenditures are adjusted down by 15 percent to account for costs that a utility-delivered program would be recovering through base rates.

Table 5: Total Resource Cost and Utility Cost

Program	Utility Cost	Total Resource Cost
NWN-WA Portfolio	3.67	1.86
NWN-WA Low Income	1.51	1.18
Overall	3.41	1.81

<sup>\*\*</sup> Total Resource Cost and Utility Cost are reported on an annual basis. These numbers include the costs of NW Natural's Washington low income program.

## B. Incentives paid

Table 6 shows incentives paid each quarter and the annual total. Incentive levels rose over time for both the commercial and residential sectors. The increase in residential incentives reflects principally the growing strength of the program in the Washington market. The commercial sector drove savings in Q4, accounting for 75 percent of incentive spending for the quarter. Much of this uptick reflects the influence of school districts, which schedule heating equipment maintenance and replacement during summer months.

Table 6: Total Incentives Paid Out by Quarter

Incentives Paid	Q1	Q2	Q3	Q4	Total
Residential					
Existing Homes	\$ 18,950	\$ 17,072	\$ 29,212	\$ 36,217	\$ 101,451
Commercial					
Existing Buildings		\$ 14,440	\$ 9,505	\$ 111,355	\$ 135,300
Total	\$ 18,950	\$ 31,512	\$ 38,717	\$ 147,572	\$ 236,751

Table 7 shows incentive spending as a percentage of adjusted total program expenditures. The adjustment reflects the assumption that a utility-delivered program would recover 15 percent of program costs through base rates.

Table 7: Percentage of Paid Out Incentives to Total Dollars Spent

	Total	Adjusted		
Program	Expenditures	Expenditures	Incentives	% Incentives
Tota	527,039	\$ 447,984	\$ 236,751	53%

<sup>\*</sup>Percent of incentives is calculated using the adjusted program expenditures, where total program expenditures are adjusted down by 15 percent to account for costs that a utility-delivered program would be recovering through base rates.

#### C. Cost per annual therm

Table 8 shows annual therms saved, dollars spent per therm and levelized cost per therm. The commercial sector's particularly low dollar-per-therm and levelized cost ratios boosted overall cost-effectiveness and helps account for the lower-than-budgeted annual spending.

Table 8: Annual Therm Savings by Sector and Levelized Cost

Gas Efficiency Savings	Therms Saved	herms Saved Expenses		\$/Therm		Levelized Cost/Therm
Residential						
Existing Homes	36,952	\$	258,378	\$	7.0	51 ¢
Commercial						
Existing Buildings	83,945	\$	268,661	\$	3.2	20 ¢
Total	120,897	\$	527,039	\$	4.4	28 ¢

## D. Annual therms saved

Table 9 shows annual therms saved by quarter and by sector, along with annual totals.

Table 9: Gas Savings by Quarter

Gas Efficiency Savings	Q1	Q2	Q3	Q4	Total
Residential					
Existing Homes	7,811	7,269	10,729	11,143	36,952
Commercial					
Existing Buildings	0	12,817	5,431	65,697	83,945
Total	7,811	20,086	16,160	76,840	120,897

## E. Project activity

Table 10 describes overall project activity by sector. Appendix 1 presents a detailed list of measures installed in each sector and the savings associated with each measure.

Table 10: Annual Activity Completed

	Q1	Q2	Q3	Q4	Total
Commercial projects					
Existing buildings retrofitted	0	3	3	21	27
Subtotal Commercial	0	3	3	21	27
Residential projects					
Home Energy Reviews conducted	56	93	68	65	282
Single-family homes retrofitted	80	61	102	112	355
Subtotal Residential	136	172	170	177	655
TOTAL ACTIVITY	136	175	173	198	682

## F. Conclusion

In summary, the first pilot year was a success in serving customers of NW Natural in Washington. Knowledge of Energy Trust and NW Natural incentives grew significantly in the market, and the goal range was achieved. Customer feedback showed high satisfaction and desire for program offerings to continue. Energy Trust learned a number of key lessons that will propel the program forward in 2011.

# **APPENDIX 1: Energy Efficiency Measure Counts and Savings**

Table 1: Residential Sector Measures

		Number	Total Therms
Category	Measure	Installed	Saved
	Air Sealing	11	728
AIR SEALING	Blower Door Test	18	
	Total Air Sealing	29	
DUCT SEALING &	Duct Testing	35	0
	Duct Sealing	32	684
INSULATION	Duct Insulation	2	29
	Total Duct Sealing & Insulation	69	714
	Ceiling Insulation	38	4,165
SHELL INSULATION	Floor Insulation	14	1,596
SHELL INSULATION	Knee Wall Insulation	3	48
	Wall Insulation	9	592
	Total Shell Insulation	64	6,402
	Faucet aerator installed during Home Energy Review	532	2,743
	Shower wand installed during Home Energy Review	54	1,007
WATER HEATING	Shower head installed during Home Energy Review	249	4,783
WATER HEATING	Water heater thermostat set-back	51	371
	Tank water heater	6	97
	Tankless water heater	44	2,860
	Total Water Heating	936	11,861
GAS FIREPLACES	Total Gas Fireplaces	13	824
CDACE LIEATING	Boiler	1	44
SPACE HEATING	Furnace	226	15,805
	Total Space Heating	227	15,850
WINDOWS	Total Homes Replacing Windows	9	574
HOME ENERGY REVIEWS	Total Home Energy Reviews	282	0
PROMOTION	Total Promotions	7	0
	Grand Total	1,636	36,952

Table 2: Commercial Sector Measures

		Number	Total Therms
Category	Measure	Installed	Saved
	Ceiling Insulation	7	38,550
INSULATION	Wall Insulation	5	4,810
	Pipe Insulation	1	2,604
	Total Shell Insulation	13	45,964
WATER HEATING	Conventional Condensing Tank	6	858
	Total Water Heating	6	858
	Boiler	8	13,797
SPACE HEATING	Furnace	4	300
SPACE REATING	Direct-fired Radiant Heaters (multiple heaters per space)	104	18,360
	Gas Unit Heaters (commercial space heaters)	4	860
	Total Space Heating	120	33,317
STEAM TRAPS	Total Steam Traps	30	2,490
FOODSERVICE	Gas Convection Oven	4	1,208
EQUIPMENT	Turbo Pot	1	108
	Total Foodservice Equipment	5	1,316
	Grand Total	174	83,945

## **APPENDIX 2: New Homes Program**

This report covers the period beginning July 1, 2010, through September 30, 2010. This was the first quarter of operation for the New Homes component of Energy Trust services to NW Natural customers in Washington. Because this offer was in start-up mode, available for only one quarter, the EEAG agreed that it was not appropriate to include expenditures and savings related to New Homes in the pilot's annual data as reported in the main body of this annual report. Data reported below, reflecting the first quarter of New Homes activity, will be incorporated into the first quarter report for the 2011 program year.

## I. Background

When plans for Energy Trust service to NW Natural customers in Washington were developed in 2008, new home starts had fallen dramatically in response to the recession. It was decided to begin offering Energy Trust incentives for new homes only after Clark County new home building permits had reached 200 in two consecutive quarters. This threshold was met by Q3 of the pilot year. Clark County logged 205 and 309 housing starts, respectively, in the pilot's first and second quarters. On May 28, 2010, NW Natural filed Advice No. 10-4 to revise schedule G to include a provision for the New Homes program.

On July 1, 2010, Energy Trust began offering its New Homes program to builders. The New Homes program provides incentives for new homes built to NW ENERGY STAR® standards, which produce a home that is 15 percent more efficient than current code. The standards are embedded in a prescriptive Builder Option Package created by the U.S. Environmental Protection Agency

specifically for gas-heated homes in the Pacific Northwest. The program also supports installation of tankless water heaters in new homes.

## II. Highlights

- Launched ENERGY STAR Builder Option Package and tankless water heater incentives in SW Washington's NW Natural territory July 1, 2010.
- Supported construction of 45 high-efficiency homes in Q4 (July 1-September 30, 2010), acquiring savings of 4,050 annual therms.
- Coordinated with the Northwest ENERGY STAR Homes program to reach out to ENERGY STAR builders and verifiers to promote the stand-alone offer for tankless water heaters.

#### III. Results

Table 1: Savings & Expenditures

				Levelized
Gas Efficiency Savings	Therms Saved	Expenses	\$/Therm	Cost/Therm
New Homes	4,050	\$43,159	\$ 10.7	67 ¢

Table 2: Percentage of Paid Out Incentives to Total Dollars Spent

	Total	Adjusted		
Program	Expenditures	Expenditures	Incentives	% Incentives
New Homes	\$ 43,159	\$ 36,685	\$ 27,000	74%

Table 3: Activity Count

Measure	Count
Building Option Package	45

## **APPENDIX 3: Customer Satisfaction**

Beginning in Q4 of the pilot year of service to NW Natural customers in Washington, Energy Trust began surveying customer satisfaction. Energy Trust attempted to reach 30 residential and 15 commercial customers by telephone for the brief survey. Although the number of respondents was small (13 residential customers and eight commercial customers), results indicate a generally high level of customer satisfaction for both groups.

Samples will be drawn each subsequent quarter and the same survey administered, allowing us to track customer satisfaction over time.

Table 1: NW Natural Washington Residential Customer Satisfaction July 1-Sept. 30, 2010

Sector	Dissatisfied	Neutral	Satisfied/very satisfied
Residential (n=13)			
Overall	0	15%	85%
Incentive application	0	25%	67%
Turnaround time to receive incentive	0	0	100%

Table 2: NW Natural Washington Commercial Customer Satisfaction July 1-Sept. 30, 2010

Sector	Dissatisfied	Neutral	Satisfied/very satisfied
Commercial (n=8)			
Overall program experience	0	0	8
Ease of applying for incentive	0	1	7
Interaction with program representative	0	0	9
Quality of technical study (n=2)	0	1	1
Quality of installation work (n=7)	0	0	7
Performance of equipment installed	0	0	8

Customer communications provide another window into satisfaction levels. Energy Trust has received two communications from NW Natural Washington customers.

Customer Jennifer Halleck, facilities planning manager with the Vancouver School District, offers this testimonial:

"Energy Trust provided more than \$28,400 in cash incentives for energy-efficiency projects in six of our schools. In these financial times, we wouldn't have been able to undertake these projects without the cash incentives, which significantly lowered our payback time. We expect to recoup our investment in one to two years through reduced energy costs."

Customer Mark Ickert, owner of Custom Care Valet Dry Cleaning in Vancouver, wrote the following:

"I want to share with you an exciting moment that I had this morning when I opened my bills. Normally, opening my bills is rather depressing, but today I received my most recent bill from NW Natural. It was exciting because my bill was down over \$1,000 from what it has been running and my avg. therms per day usage was down 47% from the same period, last year. And considering that the period measured only included about 90% of my project completion, I expect that the savings should grow next month.

Thank you Energy Trust for this great program. In 2006, I installed a new boiler and never realized the savings that I thought I expected. I knew something was not quite right, but didn't realize the extent of my challenge until your audit showed that I had eighteen steam traps that were underperforming. As a result of that audit and the subsequent replacement of those traps and further insulation, not only am I saving a significant amount of money on a monthly basis, but I am also putting less stress on my boiler which will have a long term benefit, as well.

Lisa [Bush at Energy Trust], you have been great to work with by returning my phone calls promptly and answering all of my questions. I am grateful for the day that you chose to stop by and leave the information about your program. Your timing couldn't have been better. Please feel free to have any other potential clients contact me for a reference on how great your program and service is."