

Rates and Regulatory Affairs
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January 25, 2011

Dave Danner, Executive Director & Secretary
Washington Utilities and Transportation Commission
1300 S Evergreen Park Drive SW
Post Office Box 47250
Olympia, Washington 98504-7250

**Re: UG 080546– Annual Report on NW Natural’s Energy Efficiency (EE)
Program**

Dear Mr. Danner:

Northwest Natural Gas Company, dba NW Natural (“NW Natural” or the “Company”), hereby submits an annual report on the Company’s Energy Efficiency program in compliance with the terms established in the Company’s Energy Efficiency Plan approved in Docket No. UG 091044.

This report was prepared by the Energy Trust of Oregon, a non-profit organization that is administering the Company’s program.

Also attached is an annual review of the Company’s Washington Low Income Energy Efficiency (WA-LIEE) program which was launched at the same time as the Energy Trust delivered program.

The Company’s Energy Efficiency program was developed and implemented, and continues to be monitored by the interested parties who have formed the Energy Efficiency Advisory Group (EEAG) in compliance with the stipulated agreement approved in Order 04 in the Company’s last rate case, UG 080546.

If you have any questions, please call me at (503)226-4211, extension 3590.

Sincerely,

/s/ Jennifer Gross

Jennifer Gross
Rates & Regulatory Affairs

cc: EEAG

Enclosures



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

January 15, 2011

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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.¹

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.
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

¹ 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.

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 lower-than-budgeted cost.²
- 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.

² Fixed costs for program set up and service delivery remained roughly constant, while incentive amounts necessary to achieve savings goals were less than projected.

- 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 Ridgfield 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 traps³ 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 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.

³ A steam trap is a valve that releases condensed gases (and non-condensable gases) without losing live steam.

- 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 high-efficiency 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 million⁴ 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.

⁴ This number is based on the installed cost per project completed in the residential sector.

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.

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	\$ 815,000	\$ 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

Type	Actual Annual Expenditures	Budgeted Annual 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

Metrics	Goal	Q1 Results	Q2 Results	Q3 Results	Q4 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

*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.

** 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.

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

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

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

*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	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

Category	Measure	Number Installed	Total Therms Saved
AIR SEALING	Air Sealing	11	728
	Blower Door Test	18	0
	Total Air Sealing	29	728
DUCT SEALING & INSULATION	Duct Testing	35	0
	Duct Sealing	32	684
	Duct Insulation	2	29
	Total Duct Sealing & Insulation	69	714
SHELL INSULATION	Ceiling Insulation	38	4,165
	Floor Insulation	14	1,596
	Knee Wall Insulation	3	48
	Wall Insulation	9	592
	Total Shell Insulation	64	6,402
WATER HEATING	Faucet aerator installed during Home Energy Review	532	2,743
	Shower wand installed during Home Energy Review	54	1,007
	Shower head installed during Home Energy Review	249	4,783
	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
SPACE HEATING	Boiler	1	44
	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

Category	Measure	Number Installed	Total Therms Saved
INSULATION	Ceiling Insulation	7	38,550
	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
SPACE HEATING	Boiler	8	13,797
	Furnace	4	300
	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 EQUIPMENT	Gas Convection Oven	4	1,208
	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

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

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

Program	Total Expenditures	Adjusted 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 Northwest Natural Gas. 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 Oregon 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.”

NW Natural
Washington Low Income Energy Efficiency Annual Update
October 1, 2009 – September 30, 2010

Background:

In October 2009, NW Natural (NWN) launched its Washington Low Income Energy Efficiency program (WA-LIEE). WA-LIEE is designed to assist NWN's low income customers by improving their homes' energy efficiency through the installation of energy efficient equipment and weatherization measures. The program is applicable to qualifying low-income owners or renters of single-family or multi-family residences.

NWN partners with Clark County's Housing Preservation Program and Skamania-Klickitat Community Action to administer this program. While offerings are available in Skamania and Klickitat counties, this agency rarely sees gas customers and did not provide services to any through WA-LIEE during the 2009-2010 program year. Results below are specific to Clark County's Department of Community Services.

The WA-LIEE program reimburses 90% of all cost-effective measures up to \$3500 per home. The agency is also allotted 15% of job costs (up to the cap) for administrative costs and an average of \$440 per home for Health, Safety, and Repair (HSR), which are not subject to cost effectiveness tests. A WA-LIEE job could cost the program no more than \$4465. During the 2009-2010 program year Clark County completed the following measures as part of WA-LIEE:

WA-LIEE funded measures:

- 90% + High Efficiency Furnace
- Infiltration (Shell Sealing)
- Duct Insulation
- Floor Insulation
- Wall Insulation
- Duct Sealing
- Hot Water Pipe Insulation
- Ceiling Insulation

Results:

Prior to the NWN program, Clark County did not have sufficient state and federal matching funds to replace furnaces. WA-LIEE funding allowed customers who needed furnace upgrades to receive high efficiency models.

In NWN's Energy Efficiency Plan, it was estimated that 20 low income homes would be weatherized in Washington with an average cost of \$3,431 per home including administration and health safety and repair costs. It was also estimated this program would save an average of 285 therms or 219 realized therms. The therm savings were based on Oregon's 2007-08 program year and the realization rate that was determined to be appropriate for use with Oregon's energy analysis software, RemRATE. Actual results are depicted below in Table 1.

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Table 1: WA-LIEE 2009-10 Program Year Results:

	<u>Estimated</u>	<u>Actual*</u>	<u>Delta</u>
Homes weatherized	20	19	(1)
Program Costs			
Reimbursed Measure (Wx) Costs	\$52,017	\$58,532	\$ 6,515
Health and Safety and Repair	\$8,800	\$6,160	\$ (2,640)
Admin Costs	\$7,803	\$8,089	\$ 286
Total Program Cost	\$68,620	\$72,781	\$ 4,161
Therms Saved			
Total estimated therms	4,380	6,839	2,459
Per home est. therms	219	360	141
Wx reimb per therm saved	\$11.88	\$8.56	(\$3.32)
Total Program per therm saved	\$15.67	\$10.64	(\$5.03)
Per Home Stats			
Reimbursed Measure (Wx) Costs	\$ 2,601	\$ 3,081	\$ 480
Health and Safety and Repair	\$ 440	\$ 324	\$ (116)
Admin Costs	\$ 390	\$ 426	\$ (36)
Average Per Home cost	\$ 3,431	\$ 3,831	\$ 400

**A realization rate will not be applied to therm savings results until an impact study has been performed to determine the difference between estimated and actual savings.*

While the total program costs are 6% higher than estimated, the total therms saved were 56% greater which made the program 32% more cost-effective on a per therm basis than predicted. Note, once a realization rate is determined and applied, these numbers may not be as favorable. Often there is a difference between estimated and actual therms saved. A minimum of one year post-project energy use data is required before such a study can be done.

While WALIEE spurred additional energy efficiency in Clark County, external factors raised costs and slowed the program's momentum. When jobs were paid for with American Recovery and Reinvestment Act (ARRA) funding, laborers were required to receive prevailing wages per the Davis Bacon Act of 1931. This significantly increased the cost per job. Also, the Environmental Protection Agency's (EPA) Renovation, Repair and Painting Rule established a new requirement that contractors performing work that

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might disturb lead-base paint in facilities build before 1978 must be certified and follow specific work practices to prevent lead contamination. Achieving compliance was time consuming. Now that training and certifications are in place, NWN does not expect these delays in future years.

Future Look: 2010-2011 program year

With the help of remaining ARRA funding, Clark County anticipates weatherizing 30 homes during the 2010-2011 program year. ARRA funds will be expended in June, with no indication of future reissuance. Additionally, the Washington State Match Makers funds, which are directly proportionate to utility contributions, may not be available, or could be funded at a decreased level after this program year. These changes will need to be considered when future year targets are established.

To ensure optimal delivery of weatherization services in Clark County, they intend to put this function out to bid during spring 2011. While optimizing production, it could mean an increase in per unit and training required if new contractors are successful bidders for the 2011-2012 program year.

NW Natural is pleased with its WA-LIEE program and looks forward to continuing to offer low-income weatherization services to its customers in Washington.