

Q2 2017 REPORT ON ACTIVITIES FOR NW NATURAL IN WASHINGTON

April 1, 2017 through June 30, 2017

This quarterly report covers the period April 1 through June 30, 2017, and addresses progress toward 2017 goals for the NW Natural energy-efficiency program in Washington. It includes information on expenditures, gas savings, projects completed and incentives paid during the quarter and year to date.

I. PROGRAM SUMMARY

A. General

- **Gas efficiency measures installed in Q2 2017 by NW Natural's Washington customers saved 82,776 annual therms of natural gas**—including 28,025 annual therms in Existing Buildings, 21,407 annual therms in Existing Homes and 33,344 annual therms in New Homes and Products.
- **Q2 2017 savings were approximately 29 percent of the 2017 annual performance metric** of 282,539 annual therms in NW Natural's 2017 Energy Efficiency Plan submitted to the Washington Utilities and Transportation Commission, WUTC. This greatly exceeds typical Q2 performance of achieving 10 percent of goal as indicated in the 2017 Energy Efficiency Plan. On average, 10 percent of annual energy savings are achieved in Q1, 10 percent in Q2, 25 percent in Q3 and 55 percent in Q4.
- **Savings achieved in Q2 2017 were more than 70 percent higher than Q2 2016 savings**, due to large commercial projects, a strong residential construction market, and the addition of The Home Depot as a new participant in Simple Steps, Smart Savings™ retail showerhead offer.
- **Energy Trust hosted a trade ally networking event** in June attended by more than 30 residential and commercial allies. Other stakeholders such as Bonneville Power Administration and Clark Public Utilities were invited to attend and participate in program content. The event was valuable in providing updates to trade allies and showing coordination between the various utility-funded energy-efficiency programs available in Southwest Washington.

B. Commercial sector highlights

Existing Buildings

- **Existing Buildings saved 28,025 annual therms in Q2** through standard measures, including foodservice equipment, building HVAC controls and a boiler.
- **In Q2, Existing Buildings achieved 18 percent of its annual goal**, compared to about 7 percent in the same quarter last year.
- **Existing Buildings conducted outreach to develop a strong pipeline of existing building and new construction projects.** The pipeline currently consists of fourteen projects, nine of which are expected to complete in 2017 and five of which are expected to complete in 2018.
- **The program continued to work with schools applying for bonds and grants** for energy-efficiency upgrades, which resulted in a strong pipeline of projects at K-12 schools. From the total pipeline, five schools projects are projected to complete in 2017 and four are expected to complete in 2018.

- **Existing Buildings began attending the Southwest Washington Contractors Association meetings** to grow the Trade Ally Network and engage with new contractors.
- **Through a mid-year filing, Energy Trust introduced new measures** including multifamily faucet aerators, showerheads, tankless water heating, new rooftop HVAC units with manufactured installed demand control ventilation (DCV) and new doors on open refrigerated cases in grocery stores. These new measures will be available beginning in Q3 2017.

C. Residential sector highlights

- **The residential sector saved 54,751 annual therms in Q2, 43 percent of its annual goal**, primarily through new home construction and energy-efficient showerheads, gas furnaces and gas hearths.
- **Energy Trust expects to exceed its annual residential sector goal**, with more savings from Existing Homes offerings.
- **Through a mid-year filing, Energy Trust introduced new electronic ignition fireplace measures** in Q2 and developed new tankless water heating incentives and new midstream tank water heater incentives to launch in Q3.
- **The residential sector planned several new strategies** to reduce the overall Washington portfolio cost per therm and increase the incentive-to-delivery ratio. Strategies include the launch of Nest Seasonal Savings, midstream incentives for tank water heaters and electronic ignition fireplaces, and an Energy Saver Kit marketing campaign scheduled for later in the year.

Existing Homes

- **Existing Homes saved 21,407 annual therms in Q2, 31 percent of its annual goal**, primarily through gas furnaces, gas hearths, smart thermostats and windows.
- **Energy Trust continued to promote loans with on-bill repayment** for Washington trade allies in conjunction with NW Natural, and worked with Craft3 to update and simplify trade ally on-bill repayment orientation presentations and onboarding process. 17 projects have been financed. This compare to 28 in 2015 and 16 in 2016s To date in 2017,.
- **Energy Trust launched a Google AdWord campaign to promote on-bill loan repayment** with Washington-specific search terms and copy. Results are expected in Q3.
- **Existing Homes supported installation of 28 gas hearths in Q2, following a Q1 bonus.** This is more than three times the gas hearths installed in Q1.
- **Given strong savings through Q2, the program decided to postpone a marketing campaign** for Energy Saver Kits to Q3 and Q4.

New Homes and Products

- **New Homes and Products saved 33,344 annual therms in Q2, 58 percent of its annual goal**, with 16,331 therms from New Homes and 17,013 therms from showerheads sold at retail.
- **New Homes recognized 180 EPS homes in Q2**, more than double the number recognized in Q1. The average percent improvement above code was 18.4 percent, which was higher than Energy Trust's expectation of 14 percent above code.
- **Customers purchased more than 2,000 showerheads in Q2, compared to 700 in Q2 2016.** Energy Trust anticipates strong demand for showerheads through year-end due to The Home Depot in Clark County recently opting in to participate in Simple Steps, Smart Savings.

D. Program evaluations

- There were no evaluations completed in Q2 2017.

E. Washington Utilities and Transportation Commission performance metrics

The table below compares quarterly results to 2017 goals, as established in NW Natural's Energy Efficiency Plan for Washington (filed December 2016).

2017 results compared to goals

Metrics	Goal	2017 YTD	Q1 Results	Q2 Results	Q3 Results	Q4 Results
Therms Saved	282,539	157,571	74,794	82,776		
Total Program Costs	\$1,975,211	\$858,645	\$442,268	\$416,377		
Average Levelized Cost	Less Than \$0.65	\$0.40	\$0.40	\$0.41		
Utility Cost at Portfolio Level	Greater than 1.0	Reported annually	Reported annually	Reported annually		

- **This table does not include savings goal or budget** associated with NW Natural's Washington Low-Income Energy Efficiency program delivery.
- **Energy Trust allocated budget to Northwest Energy Efficiency Alliance for gas market transformation activities**, which is not included in this table.

2016 results compared to goals for reference

Metrics	Goal	2016 YTD	Q1 results	Q2 results	Q3 results	Q4 results
Therms Saved	223,706 - 263,184	330,866	24,195	48,227	73,153	185,291
Total Program Costs	\$1,441,218 - \$1,695,551	\$1,818,821	\$261,402	\$331,106	\$466,681	\$759,633
Average Levelized Cost Per Measure	Less than \$0.65	\$0.41	\$0.81	\$0.54	\$0.44	\$0.31
Dollars Spent Per Therm Saved	Less than \$6.50	\$5.50	\$10.80	\$6.87	\$6.38	\$4.10
Utility Costs at Portfolio Level	Greater than 1.0	1.53	Reported annually	Reported annually	Reported annually	Reported annually

- NEEA gas market transformation activities are not included in this table.

2016 Utility Cost and Total Resource Cost benefit cost ratios by program¹

Program	Utility Cost Test benefit/cost ratio	Total Resource Cost Test benefit/cost ratio
Existing Buildings	1.18	2.16
Existing Homes	1.43	1.34
New Homes and Products	2.02	0.69
Total NW Natural Washington portfolio	1.61	0.99

2016 Total Utility Cost and Total Resource Cost benefit cost ratios

Program	Utility Cost Test benefit/cost ratio	Total Resource Cost Test benefit/cost ratio
NW Natural Washington Portfolio	1.61	0.99
NW Natural Washington Low Income	0.89	0.74
Total	1.58	0.99

¹ While Energy Trust is required to report the Total Resource Cost benefit cost ratio, it is not included as a performance metric for utility costs at the portfolio level.

II. QUARTERLY RESULTS

A. Expenditures

		Actual expenditures Q2	Budgeted expenditures Q2	Variance
Commercial programs	Existing Buildings	\$ 134,149	\$ 163,171	\$ 29,022
	Existing Buildings administration	\$ 3,341	\$ 8,842	\$ 5,501
	Commercial total	\$ 137,490	\$ 172,013	\$ 34,522
Residential programs	Existing Homes	\$ 99,514	\$ 123,662	\$ 24,149
	Existing Homes administration	\$ 3,524	\$ 5,581	\$ 2,057
	New Homes and Products	\$ 169,635	\$ 110,461	\$ (59,173)
	New Homes/Products administration	\$ 6,215	\$ 6,184	\$ (30)
	Residential total	\$ 278,887	\$ 245,889	\$ (32,998)
NEEA	NEEA Commercial	\$ 8,295	\$ 8,909	\$ 614
	NEEA Residential	\$ 33,111	\$ 21,603	\$ (11,508)
	NEEA administration	\$ 1,600	\$ 1,132	\$ (467)
	NEEA total	\$ 43,006	\$ 1,132	\$ (11,361)
	Total expenditures	\$ 459,383	\$ 449,545	\$ (9,837)

Energy Trust allocated budget to NEEA for gas market transformation activities in 2017.

B. Incentives paid²

		Q2 actual incentives	Actual expenditures	Percent incentives/ expenditures
Commercial programs	Existing Buildings	\$ 60,340	\$ 137,490	44%
	Commercial total	\$ 60,340	\$ 137,490	44%
Residential programs	Existing Homes	\$ 53,229	\$ 103,038	52%
	New Homes and Products	\$ 113,597	\$ 175,849	65%
	Residential total	\$ 166,826	\$ 278,887	60%
	Total incentives	\$ 227,166	\$ 416,377	55%

C. Savings

		Therms saved Q2	Annual goal	Percent achieved Q2	\$/therm	Levelized cost/therm
Commercial programs	Existing Buildings	28,025	156,525	18%	\$ 4.91	\$ 0.49
	Commercial total	28,025	156,525	18%	\$ 4.91	\$ 0.49
Residential programs	Existing Homes	21,407	68,253	31%	\$ 4.81	\$ 0.37
	New Homes and Products	33,344	57,761	58%	\$ 5.27	\$ 0.39
	Residential total	54,751	126,014	43%	\$ 5.09	\$ 0.38
	Total savings	82,776	282,539	29%	\$ 5.03	\$ 0.41

Energy trust allocated budget to NEEA for gas market transformation activities in 2017. While there were no associated savings in 2017, savings are expected in subsequent years.

² NEEA expenditures excluded per NW Natural Washington's Energy Efficiency Plan.

III YEAR-TO-DATE RESULTS

A. Activity highlights—sites served

	Q1	Q2	Q3	Q4	Total
Existing Commercial					
Boiler	3	1			4
Commercial laundry washer	-	-			-
Commercial tankless water heater	-	-			-
Condensing tank water heater	-	4			4
Custom building controls	-	1			
Dishwasher	1	-			1
Gas convection oven	-	-			-
Gas combination oven	-	-			-
Gas fryer	-	23			23
Gas griddle	-	-			-
High-efficiency condensing furnace	-	-			-
High-efficiency condensing unit heater	-	-			-
Custom	-	-			-
Pipe insulation	-	-			-
Roof insulation	-	-			-
Studies	3	1			4
Wall insulation	-	-			-
Existing Homes					
Weatherization (insulation, air and duct sealing and windows)	22	48			70
Gas hearths	9	28			37
Energy Saver Kits	14	64			78
Smart thermostats	54	59			113
Gas furnaces	65	118			183
Water heaters	1	1			2
Online Home Energy Reviews	64	50			114
New Homes and Products					
New EPS homes	88	180			268

B. Revenue

Source	Actual revenue	Budgeted revenue
NW Natural \$	544,100 \$	544,100

- Per the NW Natural and Energy Trust funding agreement, no revenue was received in Q2. The next revenue distribution is expected in Q3.

C. Expenditures

		Actual expenditures	Budgeted expenditures	Variance
Commercial programs	Existing Buildings	\$ 367,316	\$ 293,449	\$ (73,866)
	Existing Buildings administration	\$ 16,032	\$ 17,384	\$ 1,352
	Commercial total	\$ 383,347	\$ 310,833	\$ (72,514)
Residential programs	Existing Homes	\$ 175,505	\$ 222,682	\$ 47,177
	Existing Homes administration	\$ 7,660	\$ 10,972	\$ 3,312
	New Homes and Products	\$ 279,915	\$ 208,368	\$ (71,547)
	New Homes/products administration	\$ 12,217	\$ 12,159	\$ (58)
	Residential total	\$ 475,297	\$ 454,182	\$ (21,116)
Administration	NEEA Commercial	\$ 12,133	\$ 15,237	\$ 3,104
	NEEA Residential	\$ 48,532	\$ 40,783	\$ (7,749)
	NEEA administration	\$ 2,648	\$ 2,227	\$ (421)
	NEA total	63,313	58,246	(5,066)
	Total expenditures	\$ 921,957	\$ 823,261	\$ (98,696)

Energy Trust allocated budget to NEEA for gas market transformation activities in 2017.

D. Incentives paid³

		Actual incentives	Actual expenditures	Percent incentives/expenditures
Commercial programs	Existing Buildings	\$ 219,905	\$ 383,347	57%
	Commercial total	\$ 219,905	\$ 383,347	57%
Residential programs	Existing Homes	\$ 81,761	\$ 183,165	45%
	New Homes and Products	\$ 164,145	\$ 292,132	56%
	Residential total	\$ 245,906	\$ 475,297	52%
	Total incentives	\$ 465,811	\$ 858,645	54%

- **Incentives paid account for approximately 64 percent of year-to-date program expenses**, when total program expense is adjusted down by 15 percent to account for costs that a utility-delivered program would recover through rates.

E. Savings

		Therms saved YTD	Annual goal	Percent achieved YTD	Levelized cost/therm
Commercial programs	Existing Buildings	79,542	156,525	51%	\$ 4.91
	Commercial total	79,542	156,525	51%	\$ 4.91
Residential programs	Existing Homes	34,185	68,253	50%	\$ 4.81
	New Homes and Products	43,843	57,761	76%	\$ 5.27
	Residential total	78,029	126,014	62%	\$ 5.09
	Total savings	157,571	282,539	56%	\$ 5.03

Energy Trust allocated budget to NEEA for gas market transformation activities in 2017. While there were no associated savings to date, savings are expected in subsequent years.

³ NEEA expenditures excluded per NW Natural Washington's Energy Efficiency Plan.

Washington Low Income Energy Efficiency Program (WA-LIEE) Q2 Status 2017

NW Natural (NWN) partners with Clark County's Housing Weatherization Program to administer its Washington Low Income Energy Efficiency (WA-LIEE) program. The WA-LIEE program now reimburses 100% of all cost-effective measures up to \$5,800 per home⁴. The agency is also allotted 15% of job costs (up to the cap) for administrative costs and, during this reporting period, an average of \$440 per home for Health, Safety, and Repairs (HSR), which are not subject to cost effectiveness tests. A WA-LIEE job in the first half of 2017 could cost the program no more than \$7,110. Measures must be modeled as cost-effective to be reimbursed by WA-LIEE. The measures included in the program - as well as number of completions of each - during the first half of 2017, are listed in the table below:

WA-LIEE funded measures	Number of occurrences
Ceiling Insulation	7
Wall Insulation	5
Floor Insulation	2
Duct Insulation	2
Infiltration (Shell Sealing)	1
Hot Water Pipe Insulation	1
Duct Sealing	0
90% + High Efficiency Furnace	0

The next table lists the 2017 program goals for WA-LIEE as stated in the Company's 2017 EE Plan and the actual results as of June 30, 2017 as compared to our progress at this point over the last three years:

	Estimated for 2017	Actual as of 6/30/17	Actual as of 6/30/16	Actual as of 6/30/15	Actual as of 6/30/14
Homes served	25	7	11	6	4
Average Cost of Incentives per home	\$5,800	\$5,177	\$4,629	\$3,500	\$3,238
Cost per home (\$5,800 incentives + \$440 health, safety and repairs and \$870 administration costs)	\$7,110	\$6,394	\$5,646	\$4,465	\$4,164
Total cost	\$177,750	\$44,756	\$62,110	\$26,790	\$16,654
Modeled therms saved per home	366	442	304	377	262
Total modeled therms saved	5,275	3,086	3,344	2,262	1,048

⁴ Until 2016, the program reimbursed 90% of job costs up to \$3,500

The biggest challenge of this program continues to be finding qualified customers and eligible gas homes to weatherize. Overcoming health, safety and repairs necessary in the homes has also been a challenge. NW Natural appreciates the support of the EEAG and the recognition of the non-energy related challenges in some projects. The additional HSR funding of up to \$1,000⁵ towards those costs is expected to support additional projects in Q3 and Q4.

⁵ Docket No. UG-170669, Advice No. 17-03

Washington Energy Efficiency Program Q2 2017 Transactional Audit Results

With the Washington Utilities and Transportation Commission (“WUTC”) review and approval of NW Natural’s (“NW Natural” or “Company”) request for amortization of 2013 energy efficiency program costs (Docket UG-143333), the Commission adopted the recommendation made by Commission Staff that NW Natural conduct a transactional audit of program costs relating to the Energy Trust of Oregon’s (“Energy Trust”) administration of the Company’s Washington energy efficiency programs. NW Natural agreed to the following audit schedule:

- By April 1 of each year, NW Natural will select a random sample of prior year program cost transactions from the Energy Trust. The sample size will be based on the population of transactions. A summary of the audit process and the Company’s findings or recommendations will be included in the April 25 Annual EE Report.
- By August 1 of each year, NW Natural will select a random sample of program cost transactions from the Energy Trust for the current year January through June 30 time period. The sample size will be based on the population of transactions. A summary of the audit process and the Company’s findings or recommendations will be included in the August 25th second quarter EE Report.

Q2 2017 Program Cost Audit

NW Natural’s Internal Audit Department (IA) has completed a review of the Energy Trust expenditures billed for 1/1/2017 – 6/30/2017. The assessment consisted of a review of Energy Trust’s allocation and territory reporting policies, chart of accounts, and Report data relating to program effectiveness. Utilizing a statistical sampling model a representative sample of 40 (based on 80% confidence level and a 10% margin of error) transactions were selected for detail review.

For selected transactions IA verified balances were correctly captured within the proper period, transactions were appropriately classified and coded to NW Natural territories, allocations were completed per Energy Trust policy and were related to NW Natural specific programs and territories, incentive details were properly captured, and management and program expenses appeared appropriate. Lastly, IA verified that programs captured within the detail testing were included within the annual report and reviewed for program effectiveness.

IA noted that during the audit an allocation error was discovered by the Energy Trust. The percentages used for Evaluation and Planning, Trade Ally Support, and IT Support were not updated from the previous year. This resulted in an under allocation to the Washington program. This was corrected before the mid-year reporting and was not material. All expenditures reviewed appear to be appropriate.