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REPORT NAME: 2016-2017 Oregon Low-Income Energy Efficiency (OLIEE) Annual Report

COMPANY NAME: NW Natural Gas Company

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.

If known, please select designation: RE (Electric) RG (Gas) RW (Water) RO (Other)

Report is required by: OAR

Statute

Order

Other Schedule 320 of NWN's Tariff

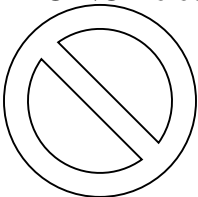
Is this report associated with a specific docket/case? No Yes

If yes, enter docket number: RG 13

List applicable Key Words for this report to facilitate electronic search:

NW Natural, 2016-2017 Program Year, Oregon Low-Income Energy Efficiency Annual Report, OLIEE, RG 13

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GAIL HAMMER
Rates and Regulatory Affairs
Tel: 503.226.4211 ext. 5865
Fax: 503.721.2516
email: gail.hammer@nwnatural.com



December 29, 2017

Public Utility Commission of Oregon
201 High Street SE, Suite 100
Post Office Box 1088
Salem, Oregon 97308-1088

Attn: Filing Center

RE: **RG-13** - Oregon Low-Income Energy Efficiency Program (OLIEE)
Annual Report (Program Year 2016-2017)

Northwest Natural Gas Company, dba NW Natural (“NW Natural” or the “Company”), submits herewith its Oregon Low-Income Energy Efficiency Program (OLIEE) Annual Report for the Program Year 2016-2017 in accordance with the Company’s Tariff P.U.C. Or. 25, Schedule 320.

Please do not hesitate to contact me should you have any questions about this report.

Sincerely,

/s/ Gail Hammer

Gail Hammer
Rates and Regulatory Affairs

enclosure

NW Natural

Oregon Low Income Energy Efficiency Program Annual Report To the Public Utility Commission of Oregon Program Year: October 2016- September 2017

I. Summary

The programs supported by the Oregon Low Income Energy Efficiency (OLIEE) Programs tariff continued to strengthen in the 2016-17 program year. Collectively our partner agencies provided weatherization services to 360 households and engaged several hundred additional NW Natural customers through energy education workshops, energy saver kits and/or received air sealing services.

II. OLIEE Overview

Since October 2002, NW Natural (NWN) has collected public purpose funding for OLIEE. For the first time, starting with the 2017-18 program year, the collection increased. Previously it had been equal to one quarter of one percent (0.25%) of total energy use billed from Oregon's residential and commercial customers but is now equal to one fifty fifth of one percent (.55%).

The OLIEE program both assists NWN's low income customers by reducing their natural gas needs through the installation of high efficient gas equipment and weatherization and empowers customers through energy literacy both in tandem with weatherization and as a stand-alone service. The program is applicable to owners and renters of single or multi-family dwellings, who meet income guidelines as established in Oregon's annual Low Income Home Energy Assistance Program (LIHEAP) State Plan¹. On average, the OLIEE program reduces participating customers' gas usage by approximately 20%² annually.

III. OLIEE Community Action Program (CAP) Program

OLIEE partners with CAP Agencies located in each county to administer the OLIEE program. These agencies utilize matching funds derived from the Office of Community Services' Low Income Home Energy Assistance Program (LIHEAP) and the US Department of Energy's Weatherization Assistance Program (WAP). NWN contributes to each eligible gas home's weatherization and energy efficiency efforts as follows:

Expense category	Cap
Weatherization cap per home	\$10,000
Audit and Inspection allotment	\$850
Health, Safety and Repairs	\$1,000
Agency Administrative expense	\$750
Max reimbursement per home	\$12,600

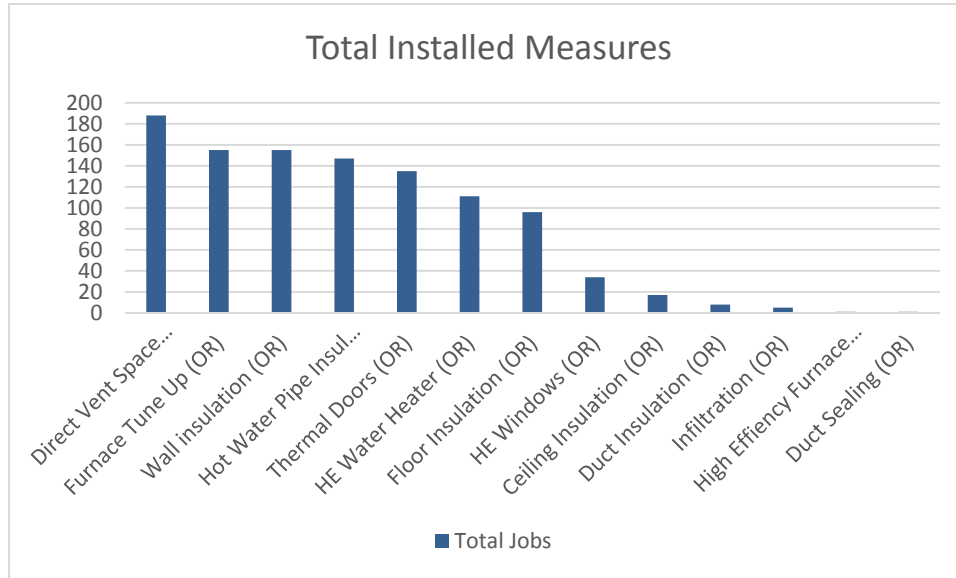
¹ The 2016 Oregon LIHEAP Fact Sheet is found here:
<http://www.oregon.gov/ohcs/pdfs/factsheets/factsheet-low-income-home-energy-assistance.pdf>

² According to 2011 Impact Evaluation performed by Forefront Economics

NW Natural

Oregon Low Income Energy Efficiency Program Annual Report To the Public Utility Commission of Oregon Program Year: October 2016- September 2017

The funds supported over 1,050 measures installed in 260 households.



During the 2016-17 program year, agencies were able to bring over \$700,000 of matching funds to NW Natural customer households. While only 29 additional jobs were completed over the 2015-16 program year, the 2016-17 year saw an increase of \$350,000 of matching funds.

IV. Current year weatherization results:

Table 1 – Prior three program years’ CAP results

	<u>2016-2017</u>	<u>2015-2016</u>	<u>2014-2015</u>
Households weatherized (Target)	300	238 to 351	208 to 334
Households weatherized (Actual)	260	231	198
Reimbursed Measure Costs	\$1,521,200	\$1,246,030	\$ 791,611
Reimbursed HSR	\$237,019	\$193,184	\$ 85,928
Est. therms	59,232	52,817	45,876
Est. therms saved per home ³	228	229	232

Households/targets: Agencies completed 13% more homes than the prior year. The program has a goal of maintaining 300 agency served households each year.

³ Estimated therms saved as calculated by the Oregon Department of Energy (ODOE) -approved modeling software, RemRate.

NW Natural

Oregon Low Income Energy Efficiency Program
Annual Report To the Public Utility Commission of Oregon
Program Year: October 2016- September 2017

Table 2: Household targets for 2017

CAP Agency	Counties Served	Targeted Households	Goal Updated Feb 2017	Actual Completions
Clackamas County CA	Clackamas	50	24	12
Community Action Organization	Washington	98	80	61
Community Action Team, Inc.	Columbia and Clatsop	6	9	4
Community Services Consortium	Benton, Linn and Lincoln	36	35	30
Housing & Comm Svcs of Lane Co	Lane	35	35	24
Mid Columbia Community Action Council	Hood River and Wasco	0	0	0
Mid-Willamette Valley CA	Polk and Marion	81	70	31
Weatherization & Energy Services	Multnomah	124	110	95
Yamhill Co CA Partnership	Yamhill	10	8	3
Oregon Coast Comm Action	Coos	10	0	0
All Agencies		450	371	260

Therms/Costs: Total reimbursed weatherization costs increased in 2016-17; NWN attributes this to more furnace installations which increased 11% from the year prior (from 133 in 2015-16 to 147 in the current year) as year over year furnace savings increased 52%. This is a reversal of previous trends and may indicate the bundling of more measures per home. Average agency cost per home increased \$1,100. OLIEE allows furnace replacements in “no-heat” (inoperable HVAC) situations, regardless of savings-to-investment calculation. Furnaces are often replaced and upgraded without indication of therm savings. This understates the energy value of furnace replacements and overstates the price per therm. Furnaces without REM savings will be utilizing engineering based saving numbers.

V. 2017-2018 Future look including targets and wait lists

In addition to 2017-18 targets, Table 3 provides actual results for program year 2016-17, waiting list information as of 2016-17 program year-end and total meter count by agency geography as previously requested by the Commission Staff.

NW Natural

Oregon Low Income Energy Efficiency Program Annual Report To the Public Utility Commission of Oregon Program Year: October 2016- September 2017

Table 3: Projections and Wait List Data⁴

CAP Agency	Gas ⁵ home wait list 9/30/16	Gas home wait list as of 9/30/17	Total Wait list as of 9/30/17	Residential Meter Count	2017-2018 gas home target
Clackamas County CA	79	106	255	84,952	20
Community Action Organization	54	54	152	130,045	75
Community Action Team, Inc.	65	63	264	19,271	4
Community Services Consortium	118	98	476	48,309	30
Housing & Comm Svcs of Lane Co	45	50	416	35,735	25
Mid-Columbia Community Action Council	N/A	N/A	N/A	4,900	0
Mid-Willamette Valley CA	136	55	431	73,285	60
Multnomah County Weatherization & Energy Services	37	7	30	183,047	100
Yamhill Co CA Partnership	7	5	322	11,022	7
Oregon Coast Comm Action	N/A	N/A	N/A	1,418	0
All Agencies	541	438	2,346	591,984	321

In addition to a 13% increase in completions over the last program year by the CAP agencies, NWN is also pleased to see a 19% drop the number of gas homes on waiting list. The agencies have confirmed the new program design enables them to prioritize gas homes and move customers through the system more quickly.

Projects averaged approximately \$8,213 during the 2016-17 program year (inclusive of administrative, audit and inspection). Applying this average to the 2017-18 target of 300 households will require \$2.4M for CAP projects. Collections for 2017-18 are anticipated to be \$2.7M; those funds, along with the \$1.8M year-end balance are budgeted to cover the

⁴ The waiting list information presented in this table is as reported to NW Natural by each agency.

⁵ As reported in prior annual report; due to timing, figures may not tie exactly to energy education reports

NW Natural

Oregon Low Income Energy Efficiency Program Annual Report To the Public Utility Commission of Oregon Program Year: October 2016- September 2017

CAP program plus energy education, NWN program administration and approved pilots through the Open Solicitation Program (see final section). The Company will be monitoring balances and the OLIEE Advisory Committee will monitor the balances at each meeting.

VI. Program Funding: Cash basis⁶

Table 4 – 2016-2017 OLIEE Program Year Funding

Program Revenue:	
Public Purpose Funding	\$ 1,464,903
Interest and Investment Income	\$ 4,734
Total PY 2016-17 Program Revenue	\$ 1,469,637
Expenses:	
Total Agency Cost ⁷	\$ (2,297,571)
Open Solicitation Program (OSP)	\$ (78,021)
NWN Administration/OSP Verification	\$ (128,047)
Energy Education	\$ (130,000)
Total PY 2016-17 Expense	\$ (2,633,639)
PY 2016-17 Excess Funding	\$ (1,164,002)

VII. Energy Education:

The current tariff allows 10% of program collections to be used for client energy education each program year. The Company's goal is to create synergies in the delivery and funding of traditional low income services - weatherization and bill assistance – while better serving this customer group. By targeting customers on the weatherization waiting lists (OLIEE) and previous recipients of bill assistance (OLGA⁸), NWN specifically hopes to:

- Provide more immediate attention and services to customers on weatherization wait lists
- Provide education and direct install measures to customers whose homes do not qualify for OLIEE
- Show OLGA customers how to use less gas and decrease their dependency on bill payment assistance
- Encourage eligible households to sign up for weatherization services.

Agency-specific reports are included in Appendix 1. Each includes an overview of their offering and greater detail on:

⁶ Note: expenses are paid 1 to 2 months after being incurred. Due to this timing difference, figures in section III and V will not fully synchronize.

⁷ Agency costs include measure reimbursement, health, safety and repair allowance as well as administrative costs.

⁸ Oregon Low Income Gas Assistance

NW Natural

Oregon Low Income Energy Efficiency Program Annual Report To the Public Utility Commission of Oregon Program Year: October 2016- September 2017

- Wait list management
- Education methods
- Program Impacts, and
- Accounting

NW Natural is pleased with the agency efforts and seeks to foster inter-agency collaboration to help create an even stronger education program. In addition to providing reports outlined above, agencies have supplied PowerPoints and other teaching materials and testimonials that NWN is making available to the Community Action network.

VIII. OLIEE: Open Solicitation Program (OSP) Overview:

The OLIEE Tariff has The Company partnered with organizations serving a similar demographic as the CAP and identified projects that meet the spirit of the OLIEE program while providing some diversification of housing stock and, hence, tenant profiles. These projects all fall within the scope of the Open Solicitation Program of the OLIEE tariff.

Partners/ Projects:

- Community Energy Project (CEP) > DIY Air sealing training and kits
- Enhabit > Anti-displacement driven efficiency upgrades
- Portland Community Reinvestment Inc. and Verde > Adding energy efficiency upgrades in homes that would otherwise only receive general repairs
- Home Forward > Furnace and possible window replacement in historic building
- Oregon Training Institute (OTI) > Weatherization services to new gas customers in Coos County (phase II of OHCS's Oil to Gas program)

Projects have been completed on four of the five contracts listed above and reports for each of these are contained in Appendix 2⁹. NWN is very pleased with the results of this work and how these projects are helping us refine the application of this program for future years.

NWN contends that exploring additional, complementary pathways to serve our low income customers will create stronger program efficacy and serve people that have never been reached. Diversification in the program is expected to provide greater strength to each of the individual components and will enable continued learning and refining of this offering.

IX. Program Oversight

To help ensure optimization of program design and execution, the OLIEE Advisory Committee (OAC) meets semi-annually to provide deliberation and counsel to NWN. Members include agency representatives (2), the Citizens Utility Board (CUB), the Public

⁹ See footnote 6 – most of these payments will be reflected in next program year report.

NW Natural

Oregon Low Income Energy Efficiency Program
Annual Report To the Public Utility Commission of Oregon
Program Year: October 2016- September 2017

Utility Commission (PUC) and the Community Action Partnership of Oregon (CAPO). The intent of this body is to increase accountability for program performance through the observation of early indicators and greater visibility of upstream statistics (upstream of home completions), and through impact evaluations, when deemed appropriate and necessary.

NWN appreciates the insight and dedication of this body; we are positioned for a very strong 2016-17 program year.

X. Program Accountability

NWN solicited feedback from program partners through an anonymous 10 question survey. Results on the OLIEE program averaged 1.3 on a 1 to 5 scale where 1 was “extremely satisfied” and 5 was “not at all satisfied.” This was taken as positive with no glaring areas for improvement.

NWN OLIEE program staff will be looking into continual improvements and focus on “Timeliness” which had a 1.5 rating, still very positive. NWN has been tracking the payment turn-around time starting during the 2016-17 year and can report on progress reducing processing time.

Agencies typically have fewer interactions with other departments at NWN but a question was asked to allow feedback. Other departments of NWN had overall results that averaged 1.85 on a 1 (extremely satisfied) to 5 (not at all satisfied) scale.

NW Natural Energy Education Program Year 2016-17 Reporting

Please provide your report on the OLIEE-funded Energy Education efforts during the 2016-17 program year using the five focus areas outlined below. Your report provides a window into this program that many stakeholders will not have otherwise. Please send your complete report to Rick Hodges (Rick.Hodges@nwnatural.com) by November 28, 2017. Thank you!

1. **Overview:** Please provide a paragraph or two explaining your agency's education program offering at a high level. Clackamas County delivers energy education as an integral part of the weatherization process. Savings may be had through the physical installation of energy conservation measures such as insulation and air sealing but this must be complemented with the knowledge of how to operate the house as a system in order to maximize the energy savings. Running the house as a system requires a basic understanding of how heat moves in a house as well as how and how much energy is consumed through lights, appliances and other devices. The goal of our energy education program is to provide a basic knowledge so that our customers can make an informed decision on how they choose to live in their home.

2. **Waitlist management:**
 - Number of total households on your waitlist beginning **214** and end of program year **255**
 - Of that total, how many are heated with natural gas? **106**
 - Narrative – Describe any issues or highlight success in addressing waitlist over the past year
It has been difficult serving our clients over the past several years. We currently have 20 gas heated home in progress and are hoping to have those wrapped up by end of spring 2018.

3. **Education methods:**
 - Workshops:
 - Number of workshops conducted
Total: 12 Attendees 59
Gas ONLY: 4 Attendees 9
 - Locations (I.e. libraries, at your agency, schools, etc.)
10 workshops located at our agency
2 workshops located at the Energy Assistance building
1 Clackamas County services fair located at a local church 52 actual contacts for WX
1 school visit in Canby 74 elementary students received energy conservation education
 - Workshop duration
Varies
 - Number of people/households attending workshops? **185**
Are these just NWN customers? **No**
 - How did participants learn of the workshops? **Referrals from weatherization, energy assistance programs and Clackamas County Citizen News article.**

 - In-home Education visits:
 - Number of homes visited and were these standalone education visits or a component of the weatherization work.

NW Natural Energy Education Program Year 2016-17 Reporting

268 Total

173 components of weatherization work (27 Gas)

95 standalone education visits (16 gas)

How were these homes selected? **Weatherization visits are selected from those interested in receiving services, typically first come first serve. Standalone visits are received from energy assistance program and those who may not receive weatherization services in the short term. Some clients request a one on one visit with our energy educator via our energy auditors during the initial energy audit.**

- Other methods: workshops and in-home visits are the most popular in last year's report, if you provide education via other means, please describe.

This past year the city of Damascus voted to disincorporate as a city. As a response to this, Clackamas County held a County Services Fair on January 28th of this year to advertise and promote what services the County offers. We (Kurt Torgerson) attended the fair, and gave out energy saving brochures to adults, (with gas heat saving info) and energy-saving coloring books to children.

Kurt wrote an article on energy-saving techniques, including finding home air leaks, for the August 2017 issue of *Citizen News*. The *Citizen News* is published several times a year and is distributed free to thousands of County residents. This was a great opportunity to get people thinking about saving energy before the onset of the heating season.

Kurt also hands out Weatherization and energy-saving materials to County senior centers for posting on their bulletin boards twice a year or so. This may reach some who are not aware of our program and the services we provide.

- Please send along a copy of the Powerpoint presentations used, event flyer or handouts, web video links, etc. Others can't always attend and we'd like to see what's being presented. ***See attached***

4. Program Impacts:

- Describe the tangible impacts of the program and funding.
- If you hand out EE kits, describe the contents. **. Typically here at Clackamas County we "tailor" to the client's needs in lieu of simply "handing out a kit". For our gas customers the list is somewhat limited and will be dependent on what gas appliances the client owns and operates.**
- How many were distributed? To whom?
- Were furnaces inspected in the home visits? **No, our energy educator is not responsible for furnace inspections.** How many? **We were dispatched to eight (8) homes with gas as a primary heat source.** How many were fixed? **Seven (7), the eighth (8th) will be fixed in the 2017-18 program year.**
- Narrative: give examples of the participant feedback, or share a success story or two, or highlight a few education successes.

1. Stacey V. is a single mother living in Clackamas with three children. She was experiencing high natural gas and electric utility bills in her split-level home. She knew that she was using a lot of energy, but did not realize that much of her energy consumption was due to how she used her home. For example, her children were taking long baths and showers every day, consuming a lot of hot water. She also had the house central air conditioning set to a low level. We were able to show

**NW Natural Energy Education
Program Year 2016-17 Reporting**

her how much she could save by using less hot water as well as using a fan at night instead of air conditioning to help cool her house.

At the end of our visit she was confident that she could save enough money to reduce or (hopefully) eliminate the need for energy assistance in the future.

2. Natalya S. has a large family of seven in her Damascus home. During the home visit, she had all of her children sit at the table with her while we discussed ways to save energy. She wanted all of her kids to hear about ways to save energy. In talking with the family, we discovered that they collectively take over 50 showers per week as well as wash 12 plus loads of laundry using warm or hot water. They agreed to reduce their shower times as well as washing in cold water to reduce their energy consumption.

We also talked about ways to save on heating, such as keeping doors and windows closed and turning down the heat at night. Each child got a thermometer for their room so they could keep an eye on the temperature, this was a great motivator for them to save energy. Natalya also told her kids that if she saw a reduction in their utility bills that she would use the money to take them out for pizza as a treat. (Another good motivator!)

5. Program Funding/Accounting:

- Amount received from NWN:
NwN EE=\$12,590.00
- Of this, the amount spent
NwN EE=\$15,039.04
- Breakdown of expenditures (in high level terms)
Personnel=\$13,254.95
Materials & Services=\$1,784.09
- Percent of agency education funding is from NWN
15.75%

Community Action Organization

NW Natural Energy Education Program Year 2016-17 Reporting

1. Overview:

Energy Conservation provides comprehensive energy education as key component of its weatherization program. Energy education is initially delivered by the Energy Educator at an in-home visit lasting 1½ - 2½ hours. The Educator discusses topics specific to that home such as heating and cooling, hot water, lighting, refrigerators, mold and moisture, ASHRAE, combustion safety and other health and safety issues. The Educator also installs items such as energy-efficient light bulbs, faucet aerators, wall plate thermometers, furnace filters, smoke and carbon monoxide alarms. The client receives printed materials including a Home Energy Manual which Community Action updates and prints. The auditor/inspectors reinforce and add to the energy educations during the energy audit and final inspection. Contractors are expected to add to energy education, explaining maintenance and proper operation of energy conservation measures. Our staff is able to deliver energy education in either English or Spanish.

This program year, Community Action provided comprehensive energy education at 32 workshops with 510 attendees, presented at sites throughout the county. Clients signed up through Community Action's Energy Assistance, Head Start or Family Development program. We occasionally presented workshops at low-income housing sites, senior centers, etc. The workshop is approximately 1½ hours long, but can last longer when there are a lot of questions. The Educator discusses energy saving topics such as heating and cooling, hot water, furnace filters, lighting, refrigerators, and also health and safety topics such as mold and moisture, alarms, combustion safety, and ASHRAE 62.2. Workshop attendees receive a kit of energy-saving items such as energy-efficient light bulbs, faucet aerators wall plate thermometers and our Home Energy Manual. Our energy educators present workshops in either English or Spanish and Community Action utilizes interpreters to present in other languages.

2. Waitlist management:

On September 30th, 2016 there were approximately 264 total households on the wait list to receive weatherization services and 75 of them were heated with NWN. Currently there are 152 total households on the wait list and 54 were heated with NWN.

Today's wait list of 54 NWN applicants is shorter than last year's and the length of time being on the wait list to receive services is shorter; and there are no longer any "no heats" (homes without a functioning permanently installed heat source) on the wait list.

3. Education methods:

The Energy Educator provides energy education for Energy Conservation clients during the education visit to client's homes. The Energy Educator spends an average of 1.5 - 2 hours in each home, talking to the client about their concerns, installing energy efficiency and water saving devices, installing smoke and CO alarms, and providing comprehensive energy education specific to their home. Topics include heating and cooling, hot water heater, lighting, refrigerators, mold and moisture, combustion safety, explaining ASHRAE, and other health and safety topics. Clients receive the Home Energy Manual. Community Action developed this manual as a reference for clients to refer to. Clients also receive booklets on mold and moisture and on radon. All our materials are available in both English or Spanish and Energy Educator presents in either English or Spanish. If a client speaks another language, an interpreter may be brought in.

The Energy Educator also provides energy education to Energy Assistance clients and Head Start parents at workshops. Energy Assistance staff sign up interested clients during their intake visit. Head Start parents decide on type of workshops they'd like to attend during the year. They sign up with Head Start staff.

In 2016-17, we presented in-home energy education for 193 Energy Conservation clients. Clients were all from Community Action's pre-approved list to receive weatherization services. In-home energy education usually occurs before the energy audit, though it may happen during or sometimes after the audit. Baseload materials were also provided and installed. Community Action staff can deliver energy education in either English or Spanish. Community Action's Energy Auditor/Inspectors reinforce and add to the energy education with the homeowners and our contractors also add to it while installing measures.

In 2016-17, we presented 32 workshops. 462 households attended, of which 112 heated with NW Natural. Workshops were presented at different times throughout the day and week. The 1.5 hour-2 hour workshops were presented at Community Action's main office, libraries, a community center and a church. Workshops were presented in either English or Spanish. As needed, interpreters are provided for other languages.

At home visits, we distribute and install items specific to each household's needs. These may include:

- Aerator, bathroom
- Aerator, kitchen
- Alarm, CO, low-level
- Alarm, CO, standard
- Alarm, Smoke
- Brush, Refrigerator
- Clear Plastic Tape
- Door Sweep, adhesive
- Furnace Filter (multiple sizes)
- Light bulb, CFL (multiple sizes)
- Light bulb, LED (multiple sizes)
- Night Light, LED
- Rope Caulk
- Safety Outlet Covers
- Shower Timer
- Showerhead
- Smart Strip
- Switch plate & Outlet Gaskets
- Teflon Tape
- Thermometer & RH wall plate
- Thermometer, Refrigerator
- Weather stripping

Community Action distributes pre-packaged kits to each workshop attendee. Kits include the following items:

- Aerator , bathroom
- Aerator , kitchen
- Electrical outlet covers, insulated
- LED light bulb, 11 watt
- LED light bulb, 9.5 watt
- LED night light
- Teflon tape
- Thermometer & RH wall plate
- Thermometer, Hot Water
- Thermometer, Refrigerator

The Energy Educator walks through and around the home and does a visual inspection of the home's condition including condition of the furnace, water heater, kitchen and bath fans. If the client has a no-heat situation, additional information and photos are gathered.

Community Action provides energy education at community outreach events. The Energy Educator presents for other Community Action programs, low-income or senior housing programs, or other non-profits serving low income clients. Community Action also prepares energy educational materials for our Energy Assistance to hand out at client's appointments and mail out to homebound clients. Energy Education provides energy saving posts on Community Action's Facebook page and contributes energy-saving information on Community Action intranet. This year we presented to Community Action staff about the dangers of carbon monoxide poisoning and offered CO Alarms at cost.

4. Program Impacts:

The NW Natural Energy Education funds have provided materials and helped NW Natural customers better understand how their homes work and to make their homes more energy efficient, healthier, safer and more durable. The funds helped reduce the number of NW Natural clients on the wait list, reduced the number of account arrearages and shut offs. A furnace was repaired with NWN EE funds, and the rest were referred to Community Actions Weatherization/ OLIEE program.

In 2016-17, Community Action distributed 462 kits to households attending our energy education workshops. The pre-packaged kits included the following items to reduce their energy usage:

- Aerator , bathroom
- Aerator , kitchen
- Electrical outlet covers, insulated
- LED light bulb, 11 watt
- LED light bulb, 9.5 watt
- LED night light
- Teflon tape
- Thermometer & RH wall plate
- Thermometer, Hot Water
- Thermometer, Refrigerator

During home visits, households receive comprehensive energy education and base load materials specific to their needs. The Energy Educator performs a walk through the home to inspect the condition of the home, furnace, water heater, kitchen and bath fans and health and safety issues. If client has been identified or is found to be a no-heat situation, additional documentation and photos are gathered.

NW Natural Energy Education Program Year 2016-17 Reporting

Participant feedback:

Workshop attendees complete a survey at the end of class. Here are some of their comments:

- “Great workshop! It would be great if these could be done more often.”
- “Please continue to fund this type of workshop.”
- “Class was excellent and the presenter Margaret was very informative and knowledgeable.”
- “Excellent program. Thank you for having this available.”
- “I was very surprised how informative it was.”
- “Very effective presenter, very friendly and passionate about her work. Well done.”

5. Program Funding/Accounting:

For PY 2016-2017, Community Action received and spent \$21,541.00 from NW Natural for Energy Education.

Breakdown of expenditures (in high level terms): Salaries \$7,117.52, benefits and taxes \$4,011.73, materials and supplies for kits and workshops \$4,474.66, printing energy education materials and handouts \$200.70, Baseload materials \$3,620.89, incentives to attend workshops \$760.00, furnace repair \$280.00 and administration costs \$1,075.54.

Community Action received almost 12% of its energy education funding from NW Natural and 88% from ECHO (Energy Conservation Helping Oregonians).

Thank you!

HACSA
ENERGY SERVICES DIVISION
NW NATURAL ENERGY EDUCATION
Program Year 2016 - 2017



Program Overview

We have a diminishing list of NWN weatherization clients on our wait list. Our strategy is to draw NWN customers from the current list of OLGA recipients for our classroom EE program. As a part of the EE we inform participants about the weatherization program and help them with applications.

Waitlist Management

At the beginning of program year 2016-2017, HACSA's weatherization waitlist had 471 participants, 45 of which are NWN gas customers. During that time HACSA weatherized 21 NWN gas households and received 18 new weatherization applications. Currently, HACSA's weatherization waitlist has a total of 416 participants, 50 of which are NWN gas customers.

Education Methods

- Workshops

Throughout the 2016-17 program year, HACSA provided 24 EE presentations through EWEB's Customer Care Plus program to energy assistance customers. We did an additional 4 classes exclusively for Northwest Natural gas customers who received OLGA17 and/or LIHEAP17. The presentations last one hour and are held at our Eugene office located at 177 Day Island Rd. The average number of participants per classroom is about 14.

People hear about the EWEB presentations through the "homework" folder provided by Lane County Health & Human Services Division when attending their intake appointment. A flyer for the presentation is one of the items in their folder.

For the NWN presentations, customers received a direct mailer to their mailing address on record. A follow up call was made to non-responders asking if an in-home EE session would be better. Often NWN customers have quite a distance to travel and coming to a presentation is not practical.

- In-Home Education Visits

We provided stand-alone EE to 20 clients from the 2017 LIHEAP list who also are on our weatherization waitlist.

- Other Methods

Prior to any weatherization, all homes get an in home visit for EE and at the same time the auditor collects pre-assessment data for weatherization audit planning.

Program Impacts

The NWN EE funds allowed us to pay staff time to prepare the presentations, teach the classes, and upgrade our classroom with a purchase of a LED Smart HDTV to be able to provide participants with a Power Point presentation. In addition, NWN EE funds also allowed us to purchase additional energy education pamphlets for customers that attended the presentation as well as direct mailers to invite customers to participate.

HACSA
ENERGY SERVICES DIVISION
NW NATURAL ENERGY EDUCATION
Program Year 2016 - 2017



- EE Kits

As part of the EE, we provide low-flow aerators for kitchen and bath sinks as well as CO detectors. We would like to add low-flow shower heads and thermometers to the items we provide.

- Inspections

Furnaces are always inspected during an in-home visit.

• Narrative

At the end of the presentation, we hand out a feedback form to participants asking: "Anything you particularly liked or that could have been done better?" Here are some responses (quotes) from August 2017:

"easy going nature of speaker", "No", "wording good, Daniel", "PRESENTER WAS NICE", "It was good", "great presentation", "Very good presentation! Thank you!", "more info on phantom: for example, Should you unplug your toaster and coffee maker when you go on vacation?", "no", "He was fun to listen to", "I have tried all of it", "Re kauk my wndows", "Already knew quite abit-this was a refresher", "I am impressed-learned more this time than last-more gas info was informative", "A great update on energy saving", "perfect use of tools and props during presentation".

The number of people who sign up for the presentations always differs from the actual number of people who attend. However, the percentage rate is very different for NWN Customers vs. EWEB.

EWEB= 52.5%

NWN= 80.9%

Several NWN customers said they do not have a CO detector in their home.

• Success Story

Here is a good success story of a conversion from propane to natural gas that was done this year from Energy Auditor Marc Hashagen.

I performed an energy audit for a couple in their late sixties living in an 868 square foot mobile home and found the following: The propane furnace was performing at 62% efficiency and the homeowners only had two 100lb tanks. They were using an average of 40 gallons per month which added up to driving to a fill station almost twice a month, putting the tank in the back of their car. (A full tank weighs 180lbs.) What complicated the matter is that the husband was receiving chemotherapy at the time. We ended up installing a 94% efficient furnace, a new gas range, a new roof cap, insulating the floor, replacing a door and a few windows. The clients are absolutely ecstatic about the comfort of their home and the minimal gas bills that they have received so far.

Energy Services Division
300 W Fairview Dr.
Springfield, OR 97477

HACSA
ENERGY SERVICES DIVISION
NW NATURAL ENERGY EDUCATION
Program Year 2016 - 2017



Program Funding / Accounting

Amount Received From NWN	11,658.00
Administrative Expenses	1,317.32
\$25 NWN Credit per client for attending a EE Workshop	1,375.00
CO Alarms given to 25 clients	1,069.22
LED Smart HDTV (Jumbo Tron) for EE classroom	1,230.00
Postage	244.72
Supplies	761.87
Staff Time for EE workshops and 1 on 1 in-home EE	5,659.87
Total Expenses	11,658.00
Total EE Funding	17,658.00
% from NWN	66%
% from Other Sources	34%

Comments / Suggestion

- I would propose we start at the beginning of the year and do a mass mailing to OLGA and LIHEAP recipients from that program year. In the mailing, I would have options for presentation dates throughout the entire upcoming program year. For folks who do not respond, it may be helpful to do a follow up call to attract additional presentation participants or to recruit in-home EE clients.
- Additionally, I would suggest doing a quarterly class in Junction City or Cottage Grove (with some classroom upgrades) for residents who wish to attend but have travel restrictions. (I.e. too expensive, no car, etc.)
- Another helpful thing would be handing out "swag" bags to attendees that include: energy savings tips pamphlet, refrigerator energy savings magnets, aerators, CO detectors, and any other relevant energy savings products. (Some of this has been done already.)

NW Natural Energy Education Program Year 2016-17 Reporting

Please provide your report on the OLIEE-funded Energy Education efforts during the 2016-17 program year using the five focus areas outlined below. Your report provides a window into this program that many stakeholders will not have otherwise. Please send your complete report to Rick Hodges (Rick.Hodges@nwnatural.com) by November 28, 2017. Thank you!

1. **Overview:** Please provide a paragraph or two explaining your agency's education program offering at a high level.

Community Action Agency Weatherization Services offers and provides an EE workshop specifically tailored to NWN clients. Workshops are held prior to the weatherization process. These workshops are a great tool to help our low income NWN clients start saving energy and practicing gas safety well before the weatherization work begins. The workshop explains energy conservation tips, maintenance tips and safety measures tailored to an NWN client. These workshops are available for both our English and Spanish speaking clients.

Also as part of the OLIEE EE program we also provide community outreach to areas with gas homes. The outreach includes connecting with NWN clients at community events. EE kits as well as CO alarms and other safety items are given to NWN clients who sign up for our waitlist. With this approach we are addressing energy education immediately as our clients sign up.

2. Waitlist management:

- **Number of total households on your waitlist beginning and end of program year.** 431 Total
- **Of that total, how many are heated with natural gas?** 55 NWN
- **Narrative – Describe any issues or highlight success in addressing waitlist over the past year**

This last year we had some good highlights as well as some unique challenges that arose. Highlight- we were able to WX a Shelter, They provide housing services to up to 6 women transition from incarceration back into society. We were able to replace Gas furnace after NW Natural came out and inspected the unit finding that the inducer motor was damaged. (See attachment for more information).

Challenges

1. Our full time Energy educator found a job more related to her studies and moved mid-summer.
2. Early in the year as we pushed to WX gas home we brought our waitlist down to 0.
3. The OHCS notice about rebates had us slow down and even had us rethink how to go about gas homes.

All of the above mentioned challenges great learning experiences and eye openers.

3. Education methods:

- **Workshops:**
 - **Number of workshops conducted:** 60
 - **Locations (I.e. libraries, at your agency, schools, etc.)** 2
 - **Workshop duration** 30-45 minutes

NW Natural Energy Education Program Year 2016-17 Reporting

- **Number of people/households attending workshops? Are these just NWN customers?** 1-2, yes
- **How did participants learn of the workshops?** We offer the workshop as NW clients are signing up to be added to the waitlist.
- **In-home Education visits: 5**
 - **Number of homes visited and were these standalone education visits or a component of the weatherization work.** 3-4, this was for the standalone education.
 - **How were these homes selected?** If client is homebound than we offer to go out to their home and provide energy Ed.
- **Other methods: workshops and in-home visits are the most popular in last year's report, if you provide education via other means, please describe.** The majority is workshops and very few home visits.
- **Please send along a copy of the Powerpoint presentations used, event flyer or handouts, web video links, etc. Others can't always attend and we'd like to see what's being presented.** See email attachment.

4. Program Impacts:

- **Describe the tangible impacts of the program and funding.** The tangible impacts of the OLIEE EE program are seen from the applicants' immediate energy savings and their perceptions of benefit from the program.
- **If you hand out EE kits, describe the contents. How many were distributed? To whom?**
 - a. EE full kit contents: 124 full kits given out and 85 community kits
 - 1.5 GPM Showerhead
 - 1.5 GPM Kitchen aerator
 - GPM Bathroom aerator
 - Eight LED lightbulbs (8.5 Watts)
 - Fridge thermometer
 - Freezer thermometer
 - Coil cleaning brush
 - Smart Power strip (7 outlets, one main outlet)
 - Kill-A-Watt meter
 - In addition to kit if needed
 - CO Alarm (107 given out)
 - Smoke detector (159 given out)
 - 218 additional LED bulbs
 - Natural gas savings tips booklet
 - Energy savings tips booklet
 - Water savings tips booklet
- **Were furnaces inspected in the home visits? How many? How many were fixed? Planning on it.**
- **Narrative: give examples of the participant feedback, or share a success story or two, or highlight a few education successes**

**NW Natural Energy Education
Program Year 2016-17 Reporting**

5. Program Funding/Accounting:

- **Amount received from NWN-**
- **Of this, the amount spent-** Spent down 100%
- **Breakdown of expenditures (in high level terms)**
- **Percent of agency education funding is from NWN** Estimated about 21%

Multnomah County Energy Services Program

NWNG Energy Education Update

October 1, 2016-September 30, 2017

Overview:

Multnomah County provides energy education in multiple venues. We were participants in 6-8 “Energy Fairs” throughout the year, including the 3 Fix-It-Fairs sponsored by the City of Portland. We provide workshops at all three of these fairs including at least one in Spanish. Participants of these workshops receive energy saving materials including furnace filters. Approximately 40% of all workshop participants are NWNG customers. In addition all homes receiving an energy audit receive comprehensive energy education presentation and materials. All applicants for our services receive a short energy education presentation, including energy saving tips. Furnace tune-ups were provided to 17 NWNG customers. This is up from only 5 the previous year.

Waitlist management:

- Number of Households on waitlist in October 2016: **150**
- Number of NWNG Households on list: **37**
- Number of Households on waitlist in September 2017: **30**
- Number of NWNG Households on waitlist in September 2017: **7**

Multnomah County changed our process to collect people interested in Weatherization; and to process applications when they are within a 3-month window for receiving an energy audit. We did this last year and you can see that reflected in the numbers. It has allowed us to manage the list better, particularly by not inconveniencing those applying. We continue to target 9 NWNG households for audits per month. This is out of our total target of 20 (electric, gas and oil). This allowed us to audit and weatherize 100 homes last year. Currently we have 37 NWNG households in-progress.

Education Methods:

- Workshops:
 - 9 Workshops conducted
 - We added a new site: *Gresham Sustainability Fair*. This will be reflected in next year’s report.
 - Schools and Ortiz Center
 - Workshops are for 1 hour with opportunity for questions and answers.
 - We served approximately 500 people through our workshops, with 200+ NWNG customers.
 - Outreach for workshops is through the City of Portland networking, Sun Schools and community agencies.

- In-Home Education Visits:
 - 300+ homes received energy education as part of our energy audit process. Over 100 were NWNG customers.
 - All homes audited by our program receive energy education services. Starting July 2016, 9-10, out of 20 audits per month, are NWNG homes.
 - Applicants for energy assistance receive energy education tips and energy saving materials through our community agency network.

Program Impacts:

- Funds for furnace repair and furnace filters have a direct impact on energy savings and efficiency. These are two areas that NWNG funds have allowed us to expand to NWNG customers. By combing NWNG funds with our other energy education funds, we have been able to increase the number of outreach events and serve additional Multnomah County residents. We increased our gas furnace tune-ups for, 5 to 17 over last year.
- Energy Education Kits include faucet restrictors, low flow shower heads, energy saving calendar, LED light bulbs, refrigerator thermometer, shower timer, energy saving booklet, night light. At the Fix-It-Fairs the kit also includes furnace filters.
- All furnaces are inspected as part of the energy audit. Furnaces are tuned, repaired or replaced. Most NWNG households served had their furnace replaced with a more efficient furnace. 71 replaced furnaces; 17 repaired or tuned.

Program Funding/Accounting:

- Multnomah County works on a July to June FY, so we carry funds over. We are nearly spent out of NWNG EE funds.
- All funds went to energy education and energy saving material, except for approximately \$5000 for furnace repair.
- The NWNG EE funds make up just under 25% of all energy education funds for Multnomah County.

**NW Natural Energy Education
YCAP - Program Year 2016-17 Reporting**

Please provide your report on the OLIEE-funded Energy Education efforts during the 2016-17 program years using the five focus areas outlined below. Your report provides a window into this program that many stakeholders will not have otherwise.

Overview: Please provide a paragraph or two explaining your agency's education program offering at a high level.

A. Provide your procedure for delivery of client education through energy education group sessions

When appropriate, households applying for energy assistance will be encouraged to attend an Energy Education Workshop where invaluable information will be provided on how to save energy, employ sustainable practices and health & safety i.e. Lead & Mold. YCAP delivers LIHEAP (EA) primarily through a mail-out application process in which energy education materials will be made available through a follow-up mailing. For actual appointments, energy education may be provided at point of intake and/or through follow-up mail-out.

Low-cost materials (kits) will be provided to households actively participating in the Energy Education Workshops. Through-out the workshop hands-on demonstrations occur covering review of each item in the energy ed. kit, lightbulbs comparison and the kill-a-watt meter. Depending on available funds, a small financial benefit may be credited to active participant energy suppliers.

B. Provide your procedure for delivery of client education through a home visit by energy educator

The Energy Educator/Technician will deliver energy education through a home visit. The home visit will be available (based upon funding availability) to eligible households requesting a home visit after attending an Energy Education Workshop or households waiting to receive weatherization services. At the time of the in-home visit the Energy Educator will provide the informational handouts provided at workshops if participant did not attend. The Energy Educator will actively involve the household to seek air leakage areas and may assist individuals with the installation of energy saving materials. It is anticipated that each household will receive the items listed under question 3, Program Impacts. The Educator/Technician will evaluate the dwelling for health & safety concerns that include verification of mold, lead paint, carbon monoxide detector(s) and smoke alarm(s). The Energy Educator/Technician will install carbon monoxide detector(s) and/or smoke alarm(s) as per guidance. Other materials may be provided including but not limited to; closed cell weather stripping, caulking and gun applicator, and expanding foam insulation for large air infiltration holes. Energy education at this time pre-screens potential households for comprehensive weatherization services (i.e. wall, attic, or floor insulation, window and door replacement, and refrigerator replacement).

**NW Natural Energy Education
YCAP - Program Year 2016-17 Reporting**

C. Provide your qualification criteria for participation in your Energy Education Program.

Eligible households include any whose income is at or below the USDOE and/or LIHEAP income eligibility guidelines. These levels are based on household size in relation to income and must have a documented energy burden. Both homeowner and renter households are eligible to receive benefits. Mandatory energy education is required of participants receiving weatherization and/or crisis bill assistance through the department.

YCAP Energy Services Department intends to provide ongoing Energy Education for individuals living in YCAP's Homeless Shelters. It anticipated individuals living in YCAP's shelters are there short term and will be transitioned to more stable housing within 6 months. Education and energy tips received can follow individuals from one living situation to the next providing the stepping stones to energy self-reliance. Low cost energy kits along with a home visit will be available for eligible households upon request after transitioning out of the shelter.

1. Waitlist management:

- Number of total households on your waitlist beginning and end of program year

Beginning program year October of 2016, the referral list started at 288 and ended with 322.

- Of that total, how many are heated with natural gas?

The past year, seven (7) households identified natural gas as an energy source beginning October 2016. Additional referrals were added during the program year.

Note: Not all reported projects identifying NW Natural as an energy supplier use it for the primary heat source. In some instances natural gas has been supplying a water heater, kitchen appliance or both and the heating system utilized an alternative source.

Beginning the current program year October (1) potential project is in priority for an energy audit and four (4) are in priority for an Energy Education home visit.

- Narrative – Describe any issues or highlight success in addressing waitlist over the past year

The department experienced two challenges this past year. The first challenge was stabilizing staff vacancies over the program year that directly impacted the capacity to for increased production. The second continues to be the identification of NWN weatherization-ready projects to participate in the weatherization program. The NWN referral list continues to be at its lowest level over the past two years hindering the department's ability to contact and schedule potential projects.

**NW Natural Energy Education
YCAP - Program Year 2016-17 Reporting**

2. Education methods:

✓ Workshops:

- Number of workshops conducted

Total workshops – 94 Nine (9) of those scheduled for NW Natural Customers and 8 workshops were provided in Spanish

- Locations (i.e. libraries, at your agency, schools, etc.)

YCAP conducted Energy Education either through workshop or in-home assessment. The department's long term strategic goal to improve service delivery is to evaluate expanding workshops located in various locations through-out the county.

- Workshop duration

Standard workshop length is two hours. With In-home assessments, additional time may be spent as the Educator/Technician completes the walk-through.

- Number of people/households attending workshops? Are these just NWN customers?

Two-hundred-fourteen 214 households (226 individuals) participated in Energy Education. Of the 214 households, nine (9) were NW Natural Customers.

- How did participants learn of the workshops?

Besides participants engaging in required energy education for weatherization and crisis assistance benefits, the department currently uses quarterly/annual mailings and verbal communication. A component of the department's long term strategic goal is to explore various means of outreach that includes social media.

✓ In-home Education visits:

- Number of homes visited and were these standalone education visits or a component of the weatherization work?

In-home energy education assessments were completed in four (4) dwellings this past year. Of those, two (2) received holistic approach weatherization and two (2) are in progress or pending weatherization. One additional project has been released after

**NW Natural Energy Education
YCAP - Program Year 2016-17 Reporting**

October 1st. The department did not identify projects with natural gas requiring deferral.

- How were these homes selected?

The department has lacked a high number of NW Natural customers on the weatherization referral list for the past several years. Therefore, it has not been necessary to implement priority factors for selection of energy education and/or weatherization applicants. All potential referrals that have been placed on the list have been contacted over the past several years.

✓ Program Capacity

The area of capacity expansion aligns with the one of the Department Goals for the next two years: "Implement increased outreach, creative approaches, efficiency improvements and accessibility to expedited services." The following areas have been identified as action items under the department goal;

- *Stronger linkage to customers receiving energy assistance from the Northwest Natural customers receiving OLGA and/or GAP.*
- *The department is creating outreach materials specific to Natural Gas Customers outlining services to include Bill Assistance, Energy Education & Weatherization.*
- *Social media -- Facebook is a weekly post. I have had a few posts that talk about gas and services that NWN provides to its customers (inspections, lighting pilots etc.)*

✓ Other methods: workshops and in-home visits are the most popular in last year's report, if you provide education via other means, please describe.

- *Several informational sheets were updated in YCAP's Energy Education packets. The packet has also been incorporated into a Power Point presentation to accommodate different learning styles.*
- *As part of YCAP's energy education outreach, postcards with energy education tips are mailed out every quarter to all households who have received energy assistance or weatherization in the past program year. In the 4th quarter postcard (summer), clients could show the postcard at the YCAP office for energy saving devices (LED light bulbs, LED Night Lights, energy saving playing cards).*

✓ Please send along a copy of the Powerpoint presentations used, event flyer or handouts, web video links, etc. Others can't always attend and we'd like to see what's being presented.

NW Natural Energy Education YCAP - Program Year 2016-17 Reporting

Attachments:

- ✓ YCAP – EED #1 (Various forms utilized in workshops and in-home assessments)
- ✓ YCAP – EED #2 (Information handouts – also provided but not included booklet on Mold & LEAD)
- ✓ YCAP – EED # 3 (Power Point – YCAP Energy Education Workshop)

3. Program Impacts:

- Describe the tangible impacts of the program and funding.

Pre and post testing is part of the curriculum with test results recorded. Records indicate of an average of 58% score by participants on the pre-test. Final post-test results show 97% of participants recording a test score answered all twelve questions correctly.

The influence of Energy Education into the day to day patterns and behaviors of household occupants provides short and long-term benefit for energy consumers. The immediate change may be seen as soon as the next energy bill and continues. The generational opportunity with households occupied with young children provides long-term benefits as future energy users with accounts. The following comments came from NW Natural Customers participating in Energy Education at YCAP this past year.

- ✚ *“Educator is well versed in topics and able to keep the class interesting and informative. Appreciate his humor as well.”*
- ✚ *“He was very friendly and took his time explaining everything. He answered all questions and concerns. With his help I felt confident I could save money on my energy bills.”*
- ✚ *“Explained everything very well. I have a lot more useful knowledge on how to save, thank you!”*
- ✚ *“Es una clase de mucha informacion que me puede a lludar a hora energia y se explica muy bien” (It is a good class that has lots of information that can help me save energy, and he is a good teacher)*
- ✚ *“Wonderful class, very educational. I will be sharing what I have learned with friends and family. Thank You!!”*
- ✚ *“I was not happy to take this class at first. But now I am grateful to have been given this opportunity. This was a great class with VERY helpful information.”*
- ✚ *“I've been to 3 of these classes and I learn something new every time.”*

NW Natural Energy Education YCAP - Program Year 2016-17 Reporting

- If you hand out EE kits, describe the contents. How many were distributed? To whom?

All households participating in energy education receive an energy education kit. The Educator provides basic kit to all customers and offers the enhanced kit to the NW Natural customers. The following list represents the contents of the kit:

The kit is provided in a reusable YCAP tote/grocery bag displaying sustainable concepts on the outside. Each bag provides the following items; Aerator(s) for kitchen/bath sinks, LED light bulbs, LED night light, water heater thermometer, refriger./freezer thermometer, shower timer, low flow shower head, digital temperature/humidity light switch plate, outlet caps/gaskets, rope caulk, water leak dye tablets and Teflon tape for plumbing modifications. Additional materials are optional and made available specifically to those households further down the referral list, NW Natural Customers or have the skill set to manage installing additional low cost energy materials; Window kits, door weather-stripping & sweeps, caulking with caulk-gun and expanding foam insulation.

- Were furnaces inspected in the home visits? How many? How many were fixed?

As part of the in-home Energy Education assessment a safety inspection of the combustion appliances occur. If necessary, an extensive diagnostic evaluation may be performed by a weatherization technician. Of the nine (9) NWN workshop participants four (4) of them had in-home assessments. During the 2016-17 program year YCAP completed three (3) tune-up service and one (1) repair.

- Narrative: give examples of the participant feedback, or share a success story or two, or highlight a few education successes

Success Story

YCAP's Energy Technician recently visited a home, previously visited by YCAP's Energy Educator, and found that living conditions drastically changed in the thirty days between the two visits. Following required protocols, the Technician began the evaluation of residence, heating system and going over any concerns brought forward by the occupants. Located in the home were both a furnace and hot water heater fueled by natural gas. It was reported that between the two visits there was a new roof installed on the dwelling hired by the homeowner. The homeowner disclosed to the technician since the roof installation the furnace was not functioning the same while the occupants were not feeling well. During the discussion it became evident all signs were leading to carbon monoxide exposure. Further evaluation by YCAP's Technician identified both systems were releasing significant levels of carbon monoxide internally exposing the occupants and that both systems were not vented properly during the installation of the roof. The water heater was actually never vented back out of the condition space while contractor did not extend the furnace exhaust flue by using an incorrect damper roof vent

**NW Natural Energy Education
 YCAP - Program Year 2016-17 Reporting**

4. Program Funding/Accounting: October 1, 2014 through September 30, 2017

Total Amount received from NWN	\$ 33,463.00
Of this, the total amount spent	<u>\$ 16,446.79</u>
	\$ 17,016.23 Balance

5. Program Funding/Accounting: October 1, 2016 through September 30, 2017

• Amount received from NWN	\$ 8,488.00
• Of this, the amount spent	<u>\$ 6,076.15</u>
	\$ 2,411.85 Balance

Breakdown of expenditures October 1, 2016 through September 30, 2017

Administrative

➤ Indirect allocated cost	<u>\$ 707.28</u>
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Service Delivery

➤ Wages/Benefits	\$ 4,437.43
➤ Other – (Travel, Space, Utilities)	\$ 298.65
➤ Direct Project Cost (EED Kit materials & HVAC Service)	<u>\$ 632.79</u>

Service Delivery Total	<u>\$ 5,368.87</u>
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Grand Total	<u>\$ 6,076.15</u>
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- Percent of department education funding from NWN **10 %**

YCAP Energy Services Department – Program Year 2017 - 2018

The department strategy over the next program year will include increased outreach that will target Northwest Natural customers both past and current by various methods such as mailings, direct contact and/or website & social media. The department will collaborate with community partners to provide space for direct intake and Energy Education Workshops. This past year YCAP Team Members targeted a manufactured park (NWN & PGE meters) in Newberg that resulted with eleven (11) new households signed up for energy services and weatherization. The direct approach was successful with park management excited for YCAP to return. Results of increased outreach efforts will be tracked to assist with forward direction.

Additionally, Department Team Members are currently evaluating service delivery improvements that include implementation of an English/Spanish PowerPoint version of the Energy Education curriculum, hands on demonstrations of energy saving practices and “Do-it-Yourself” at home low cost winter heating techniques projects.

2016-17 Year-End Report

Date Submitted:	September 29, 2017
Subrecipient Name:	Community Energy Project
Program Title:	DIY Weatherization Workshop
Prepared by:	Molly Mosenthal

I. Progress towards outputs and outcomes

OUTPUTS	1 st Quarter (Oct- Dec)	2 nd Quarter (Jan-Mar)	3 rd Quarter (April- June)	4 th Quarter (July- Sept)	Total (Year to Date)	Total (Contract to Date)	2- Year Goal
		93	29	9	4	135	213

1. PROGRAM SUMMARY

The Do-It-Yourself Weatherization Workshop is a program Community Energy Project has pioneered since 1979. The workshop is delivered to a target audience of low-income Oregonians, primarily in the Portland region. This hands-on workshop covers low-cost energy saving techniques focused on draft stopping that renters and homeowners alike will find valuable, including weatherizing windows and doors, basic air-sealing locations and technique, and basic furnace and water heater upkeep. Income-qualified participants receive a free kit of weatherization supplies to install in their home.

The workshop is funded by NW Natural, Portland Housing Bureau (PHB) and Multnomah County, and each funder uses different criteria for counting participants. Because of this plural funding, at a workshop we may have PHB participants, NW Natural participants, and attendees who were welcome to learn but ineligible to receive the free energy-conserving materials. CEP examined all of the participants to guarantee they were eligible for a specific contract and spread participants between all the contracts when a participant was eligible for more than one contract. As such, to date CEP has served 213 households under the NW Natural contract, and 395 NW Natural Gas customers were served across all grants for the two-year period.

2. ACCOMPLISHMENTS

NW Natural participants come to the majority of our workshops, so this section covers the entire Weatherization Workshop Program from all funding sources. It was through these workshops we were able to identify 213 NW Natural participants.

- In the 2016-2017 FY, 77 DIY Weatherization Workshops were held throughout Multnomah County, though we had participants who came from other counties. From these workshops, 135 participants were identified as NW Natural-eligible participants.
- Forty-seven workshops (61%) were open to the public; remaining workshops were held specifically for a partner host agency's clientele.

- Of 77 workshops, 27 (35%) were offered in at least one language other than English. Workshops were offered in English, Spanish, Russian, Mandarin, Vietnamese, and Somali. Additionally, CEP utilized a recorded version of the workshop four times, three times in Spanish and once in Somali for audiences where there was no interpreter.
- The Weatherization Workshop benefited from the service of 24 volunteers, including 2 Volunteer Workshop Leaders, one administrative support volunteer, and 21 Kit Builders. Volunteers donated a total of 82 hours to the program year to date.

3. CHALLENGES AND SOLUTIONS:

Weatherization season is relatively short, typically lasting from October-January, and dropping off sharply after that. Relationship building with workshop host-sites, scheduling and room reservations, and outreach to workshop participants takes significant time to develop. During the 2016-2017FY, 11 workshops were cancelled due to extreme weather events. Of those 11 workshops, 6 were unable to be rescheduled, and 5 were rescheduled for a later date, after peak-season. Rescheduling workshops significantly decreases the number of participants in attendance. Through these 11 workshops, an estimated 90-100 participants were lost.

The availability of affordable housing in the City of Portland has diminished rapidly in recent years. As a consequence, many households are living in fear of their rent being raised. Communication with landlords of any sort is becoming unwanted, and as a result, many are refraining from using any property-altering materials in order to avoid any notice from a landlord. We have been working with landlords to host workshops in low-income housing, and plan to expand efforts next year. Additionally, low and moderate income households are being forced out of the City and into East Multnomah, Washington, and Clackamas Counties due to lack of affordable housing in the City of Portland. In order to address this migration, we sought and received funding from the City of Gresham to serve residents of Gresham. The contract was granted, and allowed us to host workshops in Gresham. As a result, we were able to allocate additional participants to the NW Natural contract that would not have previously been able to receive the free materials.

Immigrant and refugee populations have historically represented a significant portion of the clients served through the DIY Weatherization program. Due to recent changes in political climate, the proportion of immigrants attending workshops has dropped drastically, particularly among the Latino community. Many fear having to fill out paperwork with personal information in order to receive free services, or even leaving their home to come to public spaces and therefore avoid attending workshops entirely. In order to address this, we have built new and reestablished former partnerships with organizations that specifically serve these communities in order to build trust. We also allow clients to use only a first name or alias, when filling out paperwork.

4. NEW DIRECTIONS:

The funding from NW Natural enabled CEP to serve participants from outside of the city of Portland. Participants from outside of Portland represented 17% of all clients served by all

contracts in 2016-2017FY to date. This increase from 12% of during the 2015-2016FY shows that there is sizable demand for the service in areas outside of the City of Portland. We will hold a higher number of workshops on the perimeters of and outside of the City of Portland in order to meet this growing demand. We will also hold workshops outside of Multnomah County, with targeted outreach to NW Natural customers.

5. NW NATURAL PARTICIPANT TRENDS:

These trends apply only to NW Natural participants, not for the entire Weatherization Workshop Program as the ACCOMPLISHMENT section covers.

Race/Ethnicity – The Weatherization Workshop’s clientele is incredibly diverse. 53% of the clients identify as a person of color; 13% of participants are African American, 16% are Latino, and 13% of participants identify as Asian.

Service Area – Of all clients from within the City of Portland, 98% are from East Portland, including North, Northeast, and Southeast. This represents 58% of total clients, as residents from outside of Portland constitute 42% of total clients. This is a significant increase from 12% during the 2015-2016FY.

Income – Over a quarter of participants (26%) have extremely low incomes, under 30% of the Median Family Income (MFI). The next income group, between 31-50% of MFI constitutes 30% of participants. The remaining participants (34%) have incomes between 51-80% MFI.

Home Ownership Status – Our participants are fairly evenly split between homeowners and renters, with 45% owning, 49% renting, and 6% declined to respond.

Gender – The ratio of women to men is more than two-to-one, with female-identified clients at 68% to 31% identifying as men. 1% declined to respond.

Disabilities – 24% of participants identify as having a disability.

PARTICIPANT DEMOGRAPHICS REPORT

1. GENDER	TOTAL YTD	PERCENTAGE*
Male	42	31%
Female	92	68%
Other	0	0%
Refused	1	1%
Total	135	

2b. RACIAL DATA: PARTICIPANTS CHECK ALL THAT APPLY	TOTAL YTD	PERCENTAGE*
African immigrant or refugee	6	4%

Asian	20	13%
Black/African American	21	13%
Latino/Hispanic	26	16%
Middle Eastern	1	1%
Native American/Alaskan Native	10	6%
Native Hawaiian	0	0%
Pacific Islander	0	0%
Slavic	1	1%
White	73	46%
Declined to answer	2	1%
Total**	160	

**Total is higher than number of people served, as 25 participants identified themselves as belonging to multiple categories.

3. INCOME (Required)	TOTAL YTD	PERCENTAGE*
(Moderate Income) 51% -80% of MFI	35	26%
(Low) 31% -50% of MFI	41	30%
(Extremely Low) 0-30% of MFI	59	44%
Total	135	

4. RESIDENCE – AREA OF PORTLAND	TOTAL YTD	PERCENTAGE*
NE Portland	31	23%
SE Portland	30	22%
NW Portland	1	1%
SW Portland	1	1%
N Portland	17	13%
Outside of Portland	55	41%
Total	135	

5. RENT/OWN	TOTAL YTD	PERCENTAGE*
Rent	66	49%
Own	61	45%
Declined to answer	8	6%
Total	135	

*Percentages may add up to more or less than 100% due to rounding

RESULTS OF YEAR-END SURVEY

The following responses are a compilation from participants across all contracts. Note that not all percentages add up to 100%, as responses were not always binary.

Question	Results		Comments		
Was it worth your time to attend the workshop? Y/N	Yes No	95.8% 4.2%	"I got a lot out of it, things I didn't know."	"I learned different ways to weatherize that I didn't know about."	"Very interesting. I really enjoyed it."
Did you save money on your heating bills after using the weatherization materials and following the energy saving tips? Y/N	Yes No NS	54.3% 10.4% 33.3%	"I used to get energy assistance by this time, but not this year! Saved about \$100/month or so."	"I live in a mobile home and my windows are old. The plastic helped save some money."	
If YES: How much money do you think you saved? If NO: Can you tell me more about that?	A.\$1-10 B.\$11-20 C.\$21-30 D.\$31-40 E.\$41+ F. Unsure None NS	10.4% 8.3% 2.1% 2.1% 8.3% 25.0% 10.4% 33.3%	"My bill was higher this year but only because of weather."	"I haven't used the materials yet. My landlord might raise rent soon and I'll have to move."	
Was your home more comfortable after using the weatherization materials and following the energy-saving tips? Y/N	Yes No NS	71.0% 6.3% 22.7%	"Only used heat a couple of times since I cut down on drafts so much."	"It's less drafty now. The vents aren't losing as much heat into the basement."	"It's warmer, especially downstairs where it was always colder because of the door. The door stuff helped a lot with that."
How much time did you [and others, if applicable] spend installing the weatherization materials?	Avg. 1.9 hours per person; 2.7 hours per Household				
Which materials were useful to you? Includes: Plastic Storm window kits, pipe insulation, rope caulk, door weatherstripping, door sweep, outlet/switch gaskets, thermometer	Windows Pipe Ins R. Caulk Door Kit Sweep Gaskets Therm.	66.7% 41.7% 33.3% 50.0% 35.4% 22.9% 22.9%			
Did you have problems installing any of the materials? Y N	Yes No	12.5% 87.5%	"I have carpel tunnel, but I got a few good tips"	"No, very straightforward."	"Everything was well explained and simple enough,

			from the instructor - using a hammer to push in the window strips.”		but I’m physically unable.”
After attending the workshop, did you (or your family) change daily routines or habits at home to save energy? Y/N	Yes No	47.9% 41.6%	“I’m much more conscious. I stopped turning the furnace off at night, and started using power strips.”	“More conscious of how I set the thermostat.”	“Became more mindful – closing doors and windows.”
Did you check/adjust the thermostat setting for your heating system this winter? Y/N	Yes No	54.2% 31.3%	“I used to turn it all the way up because the heat went out the windows. Now I put it at 65 degrees and it’s warmer than it used to be.”	“I turn it down to 55 at night now and that definitely saves money.”	
Did you check or adjust the thermostat on your water heater? Y N	Yes No	14.6% 70.8%	“Landlord won’t allow me to.”	“I don’t have access to it. I’m in an apartment.”	
Did the workshop give you the information you needed to make improvements in your home? Y/N	Yes No	81.3% 4.2%	“It gave me motivation to fix the place up.”	“Yes, and I shared it with all my neighbors and brothers!”	“I think it’s really valuable.”
Would you say the workshop was missing important information or information you needed? Y/N	Yes No	14.6% 68.7%	“It was all-encompassing.”	“Needed more options for people who cannot do it themselves or whose landlords won’t let them.”	“Need information for newer homes.”
On a scale of 1-5, with 1 being nothing and 5 being everything, how much would you say you knew about home energy & weatherization BEFORE the workshop?	1 2 3 4 5	22.9% 18.8% 22.9% 18.8% 2.1%	“I knew about weatherization, but only the kind that requires money!”		
On a scale of 1-5, with 1 being nothing and 5 being everything, how much would you say you knew about home	1 2 3 4 5	0.0% 0.0% 6.3% 37.5% 41.7%	“I’ve attended workshops previously but [the Community Educator] gave	“I’ve come to workshops before so I knew a lot, but got help with	

energy & weatherization AFTER the workshop?			me a one-on-one and she helped me out. This was great for my needs.”	my individual questions.”	
Did the workshop make you more likely to do OTHER DIY projects in the home? Y/N	Yes No	54.2% 27.1%	"I feel more confident attempting things.”	"I am replacing my water heater and faucets.”	"Made me more conscious of what can be done.”
Was this your First Community Energy Project workshop? Y/N	Yes No	66.7% 16.7%			
Would or have you recommend(ed) Community Energy Project workshops to family or friends? Y/N	Yes No	79.2% 4.2%	"I told my friends about it and most of them have now gone to workshops.”	"I teach at the MS Society and I mentioned it to them.”	"I have told many, but no one has the time to attend even though they would benefit from it.”
SPANISH ONLY					
Did you find the interpreter to be effective? Y/N	Yes No	100.0% 0.0%			
Should the interpreter have done anything differently? Y/N	Yes No	0.0% 100.0%			
How accessible were the Spanish forms?	Easy to read	80.0%	“Very useful.”		
Did you take home a Spanish manual?	Yes	60.0%			



CULLY 2.0 – YEAR 2

2016-2017 NORTHWEST NATURAL FUNDING RECAP

CULLY 2.0

2016-2017 NORTHWEST NATURAL FUNDING RECAP

BACKGROUND | THE COST OF WORK

Enhabit partnered with the Native American Youth and Family Center (NAYA) in 2015 to bring critical home repair and energy efficiency upgrades to low-income homeowners in the Cully neighborhood. Mutual goals of the program were to:

- Mitigate displacement for Cully residents through home improvements and weatherization
- Braid existing resources together to increase efficiency and uptake
- Capture the positive health outcomes for residents post retrofit
- Assure consistent and quality weatherization and home repairs for Cully residents
- Generate revenue for historically underrepresented construction firms, which include certified minority and women owned companies (MWBE)
- Create economic opportunity through training opportunities and family supporting wages and benefits for historically disadvantaged populations, including women, people of color and low-income people, with a priority being placed on current Cully residents

Initial funding was provided by Portland Housing Bureau and limited to \$5,000-\$10,000 per home. This funding allowed us to complete some deferred maintenance projects, but in many cases, barely scratched the surface. Many of the homes needed significant repairs before weatherization measures could be considered. We worked with contractors to prioritize the scope of work, both repair and energy related, finding that an investment between \$10,000-15,000 was needed per home. The funding we had in place was limited, resulting in a \$5,000-10,000 deficit per project.

IMPACT | NWN CONTRIBUTES

In 2015, Northwest Natural stepped in, providing \$74,900 for energy related work, allowing Enhabit to bridge the gap in available versus needed funding to complete both critical home repairs and some

PORTLAND HOUSING BUREAU

Cully 2.0 is well on its way into the fourth year with PHB, expanding to the East Portland community. The 2017-2018 funding year began July 1, and we hit the ground running to complete as many projects as possible with available NWN funding. The additional funding awarded by NWN allowed our team to effectively tackle much needed energy upgrades in the homes of the Cully and East Portland communities. We know our work is making a difference.

energy efficiency work. Of this amount, \$70,000 was allocated to project work and \$4,900 to administrative costs associated with program delivery. NWN dollars were used on 6 of 11 homes served during the 2015-16 program year, averaging \$9,465 per home. Two of the projects funded were conversions from oil to natural gas. NWN granted Enhabit an additional \$141,589 (\$131,100 for project work and \$10,489 for administrative costs) to continue the Cully program in 2016-17. In the current grant year, NWN dollars were used in 15 of the 29 homes served, averaging \$9,472 per home. Six of the projects included natural gas furnace replacements and one was an oil to natural gas conversion. The homes that did not receive NWN contributions were either ineligible by primary heat source, or already had substantial energy efficiency upgrades completed prior to our initial visit.

PARTNERSHIPS | FUNDING & IMPACT



During the program years, NWN, Portland Housing Bureau (PHB), and Meyer Memorial Trust (MMT) dollars were leveraged to execute our work. We reached our goal of serving 15 homes with 2016-17 funding. Total funding from NWN, PHB and MMT averaged \$12,314 per household for critical home repairs and energy efficiency upgrades. This is an increase over the number of homes served in the 2015-16 grant year of 6 homes with average combined funding of \$11,177 per household. In both grant years, all homes required critical home repairs to address

deferred maintenance, funded by PHB and MMT. In a few cases, minor weatherization work was also performed with these funds. NWN funding enabled deeper weatherization work, including air sealing, mechanical ventilation, attic insulation, basement/crawlspace insulation, and some furnace replacements. In cases where PHB and MMT funds were insufficient to cover the critical home repairs necessary before weatherization work could begin (mold remediation, pest issues), NWN stepped in to assist with these repairs.

EFFICIENCY | COST EFFECTIVENESS

In developing project scopes we focused on low hanging fruit. Insulation and air sealing were the primary measures completed with NW Natural funding. Supplemental funding was used to complete the necessary repairs to ready the home for weatherization. These included roof leaks, pest issues, mold remediation, knee walls that needed to be enclosed, etc. Once the repairs were complete, our team used a deemed savings calculator to rank the most cost-effective weatherization measures. Based on this prioritization, many projects included both attic insulation and air sealing. In a few cases, we insulated crawl spaces and even walls, but due to the high cost of insulating an exterior wall, we typically concentrated efforts on air sealing and other insulation. When the entire shell is weatherized, homeowners report a great difference in comfort but for the purpose of this project we focused on the lower cost, highest savings measures.

BENEFIT | ANTI-DISPLACEMENT

We have had the opportunity to connect with many of our program participants over the past few year and look forward to reconnecting with our participants from this year as well. Homeowners tell us that they now have the peace of mind that costly repairs have been completed. The additional funding has allowed us to not only take care of these repairs, but to also ensure that comfort in the home is increased. We have always focused on a holistic approach to energy efficiency and home health, and feel that we are now able to work towards this as well as affordability. A very small percentage of our homeowners have moved out of the neighborhood, generally due to extenuating circumstances such as caring for a relative in another state. Those who have stayed, intend to stay for the long-haul, and have expressed a sense of pride in their homes and neighborhood.



PCRI-NW Natural Weatherization Grant Report

BACKGROUND | COST OF THE WORK

Portland Community Reinvestment Initiatives (PCRI) in partnership with Verde, NW Natural, and Home Energy Life Performance Group (HELP) – proposed a second phase of an affordable housing weatherization project. Following a successful first pilot phase completed in 2014, this project shared the first phase goals to improve energy-efficiency of existing, older housing stock, realize utility cost savings and health/safety improvements for low-income renter households, to identify and improve models to deliver these benefits more efficiently to these households, and to create economic opportunity for target businesses. In addition, the second phase aimed to identify further process efficiencies and to fine-tune delivery methodology which could be used to expand the pilot into a larger program.

In total, improvements totaling \$63,310 were performed at 14 gas-heated homes. In addition to a maximum grant of \$50,000 from NW Natural, PCRI leveraged \$13,310 of its own capital improvement reserves to perform health and safety improvements in these homes. Further, Verde leveraged private foundation funds for its administration and project management of the pilot. An additional four homes received energy audits, but upon evaluation, it was determined that improvements were not needed or would not be cost effective.

IMPACT | NWN CONTRIBUTION

The successful completion of this pilot weatherization project provided long-term improvements to 17 affordable rental homes, providing comfort, health, and cost-saving efficiency benefits for the residents who live in them today and in the future. This included full replacement of aging furnaces in three homes, installing new 96% efficient models in place of older 70-80% efficient systems. In addition, HELP crew and supervisors talked directly to residents about the measures that were installed, the reasons those measures were selected, the effect the changes would have on a home's energy use and comfort. While inside each home, these crew members were also able to give energy-saving tips tailored to each resident regarding ways to save energy and ensure the long-term efficiency and durability of their home.

Leveraging HELP's presence in each home to perform energy-efficiency improvements funded by NW Natural, PCRI was able to benefit from cost-effective health and safety improvements which could be performed at the same time as other measures. These measures included simple fixes such as seismic strapping for water heaters and other important health and durability improvements such as repairs to exhaust fan and dryer venting. At some homes, preventative maintenance such as repair or replacement of aging gutters was also performed.

PARTNERSHIPS | FUNDING & IMPACT

This partnership, funded in large part by the grant from NW Natural, realized particular benefits for 3 groups:

- *PCRI residents.* 14 low-income households benefited from increased energy efficiency, increased comfort, and utility cost savings (of particular importance for these low-income families). These households, plus four more who received energy audits, further benefit from one-on-one tenant education provided by HELP at the time of assessment and installation.
- *PCRI.* PCRI benefited through improvement of its affordable housing stock, delivery of education to its residents, and because it developed a greater ability to monitor energy usage in the 17 households.



- *Target business and workforce.* HELP, a minority- and women-owned business, benefited by securing over \$63,000 in weatherization contracting work as part of this pilot, which further benefit the employees performing this work via wages and benefits.

EFFICIENCY | COST EFFECTIVENESS

Through the two phases of this pilot, PCRI has determined that the most cost-effective “low-hanging fruit” for energy-efficiency improvements have largely been completed in its gas-heated rental homes. In this phase of the pilot, four homes assessed were deemed not to need additional improvements and most homes were able to benefit from low-cost improvements such as rim joist or knee wall insulation (under \$500 per measure and/or with a total cost less than approximately \$1,500). Three homes were found to be in need of new furnaces. In the homes where furnaces were replaced, significant improvements in efficiency should be realized, although costs are also much more significant.

In order to minimize administrative costs for the pilot, full modeling was not performed. Energy savings at each home have been estimated based air leakage reductions verified by blower door tests performed prior to and after improvements were made. Estimated savings are further informed by savings realized on comparable homes with similar improvements.

- 5-10% energy savings are estimated in homes where improvements were limited to low-cost measures
- 10-15% energy savings is estimated for the home where air leakage was reduced by 27%, this was achieved by reinstalling the crawl space vapor and insulating the crawlspace and rim joist for a total cost of \$1,640 (including initial assessment and before/after testing)
- 10-25% energy savings are estimated in homes where furnaces were replaced in addition to installation of other measures.
 - Savings are expected to correlate to total costs, ranging from \$6,335 (furnace and rim joist insulation) to \$11,040 (furnace, window replacement and addition of wall insulation).

It should be reiterated that NW Natural’s financial support for the initial assessments and energy-related improvements provide significant benefit for PCRI in that it allows PCRI to identify where its capital investment can be most effectively leveraged for non-energy-related health and safety improvements.

BENEFIT

In addition to the impacts listed above for PCRI, its residents, and target business, both phases of this pilot shared expertise and lessons learned with other nonprofit partners, including NAYA and Habitat for Humanity Portland/Metro East. Verde is working with NAYA, Habitat and other partners on *Cully Weatherization 2.0*, a NAYA-led effort to weatherize 100 low and moderate income homes in NE Portland’s Cully Neighborhood. Portland’s largest neighborhood, 51% of Cully residents are people of color, 26% live in poverty, and almost 9 in 10 Cully students qualify for free/reduced lunch.

Through Verde’s Cully Weatherization project and PCRI’s Senior Homeowner Retention program, both organizations focus on weatherization and repair as an anti-displacement measure, reducing the cost burden for low-income families by increasing energy efficiency. These programs also provide jobs to low-income people and target businesses, keeping project dollars in the community.



LESSONS LEARNED

- *Involve the contractor in tenant education.* In both phases of this pilot, HELP came to the project with a strong company commitment to customer education, including its own tenant education materials. This enhanced our ability to engage residents because the contractor has unique access to the resident while the weatherization work is being performed – HELP crew and supervisors talked directly to residents about the measures that were installed, the reasons those measures were selected, the effect the changes would have on a home’s energy use and comfort, and tips specific to each resident and their home about how to save energy.
- *Collect utility waiver at move-in.* NW Natural, like any local utility, cannot share information about a customer’s energy use with a 3rd party (e.g., PCRI) without express permission from the customer. Collecting these waiver forms has been time consuming and problematic. In response, PCRI has begun collecting this form at move-in, when the prospective tenant is expected to sign a number of rent-related documents.



- *Roles and Responsibilities.* Prior to the two pilot phases, PCRI identified that clarity in roles, responsibilities, and communication as notable challenges existing with other prior and current weatherization programs. PCRI, Verde and other partners have been able to clarify key capacities and roles for this type of project: project developer/fundraiser, property owner/manager, utility/funder, and contractor/tenant educator. Through the process, we have been able to document which partner performs what work and what communication (and with whom) is expected at each step.
- *Process efficiency is a key benefit for small contractors.* Initially, this phase of the pilot was intended to engage multiple contractors to get diverse perspectives in order to fine-tune roles, responsibilities and communication needs. Unfortunately, the number of contractors interested in a project of this size were severely limited and it was necessary to choose just one contractor to perform the project. Once contractor selection was clarified, this project weatherized 14 homes in a period of approximately two months and with minimal administrative costs to HELP. Process efficiency allowed HELP to earn a modest profit on the project, which distinguishes the project from other key drivers in Portland's weatherization industry.



12/21/2017

Holly Braun
Energy Policy and Sustainability Manager
NW Natural

RE: Fountain Place heater replacement project using NW Natural grant funds

Dear Holly,

Background and cost of work

The Portland Development Commission (PDC¹) acquired the Fountain Place property in 2000 to preserve 80 affordable apartments in the Central City neighborhood. Home Forward purchased the property from the PDC in 2002 through a limited partnership with Home Forward as General Partner and Key Community Development Corporation as Limited Partner. Home Forward used proceeds from the sale of 4% low-income housing tax credits (LIHTCs) to complete select rehabilitation of the property. Fountain Place sits on a 10,000 square-foot parcel at the corner of SW 10th Avenue and SW Salmon Street. Its U-shaped structure surrounds a tiled courtyard, featuring an operational fountain, and is 45,580 square-feet. Constructed as a hotel and modified into apartments, the building contains the ornaments of its age, such as cast-iron corner mounted sinks and clawfoot tubs. Residents of Fountain Place enjoy the benefits of living in the urban core. The neighborhood promotes a healthful lifestyle and has three full service grocery stores and a year-round farmers market within a mile of the property. Residents can readily access the transit mall, streetcar and light rail service connecting to employment and educational opportunities throughout the city. Many social service providers and community agencies are also headquartered within the downtown core.

As a historic structure, Fountain Place adds design character to the downtown corridor and provides a permanent affordable housing option for those in need. Located in the Central City neighborhood, Fountain Place is six stories and contains eighty (80) affordable housing apartment homes including twenty (20) with project-based Section 8 rental assistance. It sits adjacent to the South Park Blocks. The property primarily serves extremely low-income households including several residents who have zero income.

The property has immediate capital needs that must be addressed soon. At more than a century since its original construction, the property is now showing signs of age in many ways. Over the past five years, the in-unit gas furnaces have been breaking and failing at an increasingly rapid rate. Building maintenance made repairs on an as-needed basis, but furnaces reached the point of needing

¹ As of mid-2017, PDC is now "Prosper Portland"

replacement. The decision was made in Spring 2017 to replace all unit gas furnaces with brand new gas furnaces costing \$120,000.

Impact and NWN contributions

With support from a grant provided by NW Natural, Home Forward was able to leverage project reserve funds to replace all furnaces with brand new gas furnaces that are much safer and can provide dependable heating for the vulnerable population that currently lives in the building. If it wasn't for the partnership with NW Natural, the project as a whole would not have been completed all at once and ahead of failure. Instead, replacing furnaces would have happened on a reactionary basis that may have included residents being without heat for a period of time.

With support from a grant provided by NW Natural, Home Forward was able to leverage project reserve funds to replace all furnaces with brand new gas furnaces that are much safer and can provide dependable heating for the vulnerable population that currently lives in the building. If it wasn't for the partnership with NW Natural, the project as a whole would not have been completed all at once and ahead of failure. Instead, furnaces would have been replaced on a reactionary basis that may have included customers being without heat for a period.

NW Natural contributed \$61,600, covering over half the total project cost.

Partnerships and funding impact

Partnerships with external stakeholders are very important to the affordable housing community. Affordable properties operate on very slim margins and additional funds go to helping pay for the direst needs. There are plenty of other heightened capital needs at Fountain Place, with the heater project being the most pressing. With limited funds, properties sometimes have to choose between two very important projects, but when there are outside funds to leverage, the choice to complete one project over another is clear.

Efficiency and cost effectiveness

The units installed provided the best savings-to-investment ratio. While higher efficient models are available, the associated cost far outweighed the benefit. Home Forward and NW Natural jointly decided on the heater models installed as the optimal solution. Considering cost-effectiveness from Home Forward's perspective, there will be cost savings to the maintenance budgets as the units were failing with greater frequency.

Benefit

Currently, all residential units enjoy a brand new and dependable source of heat going into the winter months. Residents are thankful that they are able to use their heat on a daily basis, without the threat of calling for service and having to scrounge for space heaters for a few days.

Thank you for your support in the Fountain Place Apartments heater replacement project. Without your financial assistance, the property possibly would not have been in the position to make such a proactive, comprehensive upgrade.

Sincerely,

Merrell Baker
Asset Manager