

Low Income Energy Efficiency Workgroup Meeting

Date: February 24, 2016

Time: 8:30 am-12:00 pm Pacific

Location: PNGC, 711 Halsey Street, Portland and by WebEx

[Join WebEx meeting here.](#)

Meeting number: 998 630 203

Meeting password: fvmAQ475

Telephone: 1-650-479-3208; Access code: 998 630 203

Meeting Materials can be found [here](#).

Draft Agenda

- 8:30 Welcome
- Recap of November 5 meeting
 - Round Robin of developments and announcements to share
- 8:45 Update from BPA – Sarah F. Moore, BPA
- Staff introduction Jess Kincaid, BPA
 - Quick Update on Low Income Section of the BPA Implementation Manual in April, any new measures
 - Cost data to support low income measures (i.e. ductless heat pump and heat pump water heaters)
- 9:00 Manufactured homes decommissioning – The Oregon Experience
- Update from Oregon - Michael Mills, Oregon Solutions
 - Arthur Chaput, NeighborWorks Umpqua
- 10:00 Break
- 10:15 Work Session: Breakout Session at Efficiency Exchange: Existing materials. What materials do we need to create?
- [Example of Utility/CAP Contract](#)
 - [Example of Checklist for CAPs Talking to Utilities](#)
 - [Examples of EE Projects and the Required Reporting When Using Utility EEI](#)
- 10:45 Discussion: What are the limiting factors getting work done? Are your administrative costs being covered? What's working for you? Facilitated by Shawn Collins, The Energy Project
- 11:45 Wrap Up and Next Steps
- 12:00 Adjourn



About this workgroup

BPA invites its public power customers and regional stakeholders to participate in the [Low Income Energy Efficiency workgroup](#). BPA is convening this workgroup as agreed to as part of the Post-2011 Review public process. Background on that process and Workgroup 3 can be found [here](#).

Facilitator: [Summer Goodwin](#), BPA, 503-230-3158

Steering Committee

[Hans Berg, Washington Department of Commerce](#)

[Todd Blackman, Franklin PUD](#)

[Shawn Collins, The Energy Project](#)

[Steve Jole, HACSA](#)

[Margaret Ryan, PNGC](#)

[Wid Ritchie, Idaho Falls Power](#)

Residential IM Updates

Sarah F. Moore, BPA Residential Sector Lead

Low Income Energy Efficiency Workgroup
February 24, 2016



April 2016 IM – Change Notice

Effective April 2016

- Insulated Exterior Door (Multifamily) - new measure (up to \$400)
- Ductless Heat Pumps – removed note about voltage on QPL (this allows 110 units)

April IM 2016 – Change Notice

Effective October 2016

- Duct Sealing – Manufactured Homes – payment will increase (up to \$500)
- Residential Weatherization Specifications will be updated (minor edits)
- DHP Specifications will be updated requiring use of vacuum pump and dedicated electrical circuit

New measures in the pipeline

**In process, not guaranteed by October 2016*

- Efficient Storm Windows
- HPWH – Tier 3 (default settings)
- High Efficiency Clothes Dryers – Tiers 2-6
- Thermostatic Shower valves

Cost Data for LI measures

Cost data to support low income measures

- *actual costs, equipment & install*

- Ductless Heat Pumps
- Heat Pump Water Heaters
- Insulated Exterior Doors

*Timeline: Need documentation of costs by
Nov/Dec 2016*

Contact

- Questions?

Sarah F. Moore

Residential Sector Lead

sfmoore@bpa.gov

503.230.4157



ReHome Oregon

MANUFACTURED HOUSING UPGRADE INITIATIVE

Curry County, Oregon

- 22,000 people—Less dense than Nebraska
- Per-capita income ~\$18,000; 13% below Fed poverty line; 35% over age of 55
- 3,800 Curry Co. families live in manufactured homes* —30% of which have serious health- and safety-related problems
- Health impacts attributable to these homes include:
 - Respiratory problems (#1 cause of hospitalizations in Curry Co.)
 - Tripping hazards—holes in floor
 - Accessibility problems for disabled
 - The homes are expensive to heat—often more expensive than a much larger stick-built home.

Current Housing Conditions





Physical – Energy and Weather Tightness



What we're replacing them with













Specs

Structural	
	Gable roof. 4:12 Pitch single, 3:12 two-section
	6" eaves fr/back
	10" eaves at ends
	7/16" OSB roof sheathing
	2x6 floor joists min, 16" o.c.
	19/32" tongue and groove OSB floor sheathing
	Foundation-ready floor framing and chassis--all steel chassis components recessed 8 to 10 inches from floor edges
	2x6 exterior walls
	2x3 min interior walls
Exterior	
	Cement board fascia and soffit
	30 yr Architectural shingles, hand tabbed for coastal applications
	3/8" min cement board siding
	Whole house wrap
	Window and door flashing
	Belly band cement board and flashed, when used
	4 in. cement board window trim and cement board trim at corners and any other locations
	Paint: semi-gloss, "25 year" grade
	36" six panel fiberglass doors, with brushed nickel lock set w/ deadbolt

Energy and Insulation	
	NEEM home certification
	R-33 Floor
	R-21 Walls
	R-40 Ceiling
	U-0.30 window

Elec/Plm.	
	HSPF 9 Ductless Heat Pump, sizing approved by NEEM
	LED lamps throughout (screw-in acceptable)
	200 amp elec
	Ceiling fan in LR and master bed
	PEX water lines
	Min 40 gal electric WH
	Indoor whole house water shutoff
	Double bowl kitchen sink, stainless steel
	Metal faucet
	2 frost free hose bibs (front, back)

Per-Home Budget—Single Section

Base price: \$34,709 + Upgrades \$7,833 = \$42,542

Transport, set-up, and site-work: \$22,942

Deconstruction of old home & septic \$7,400*

Well and/or Septic Clearance: \$1,943

~~\$80,000~~

Well: \$10,500

\$96,977

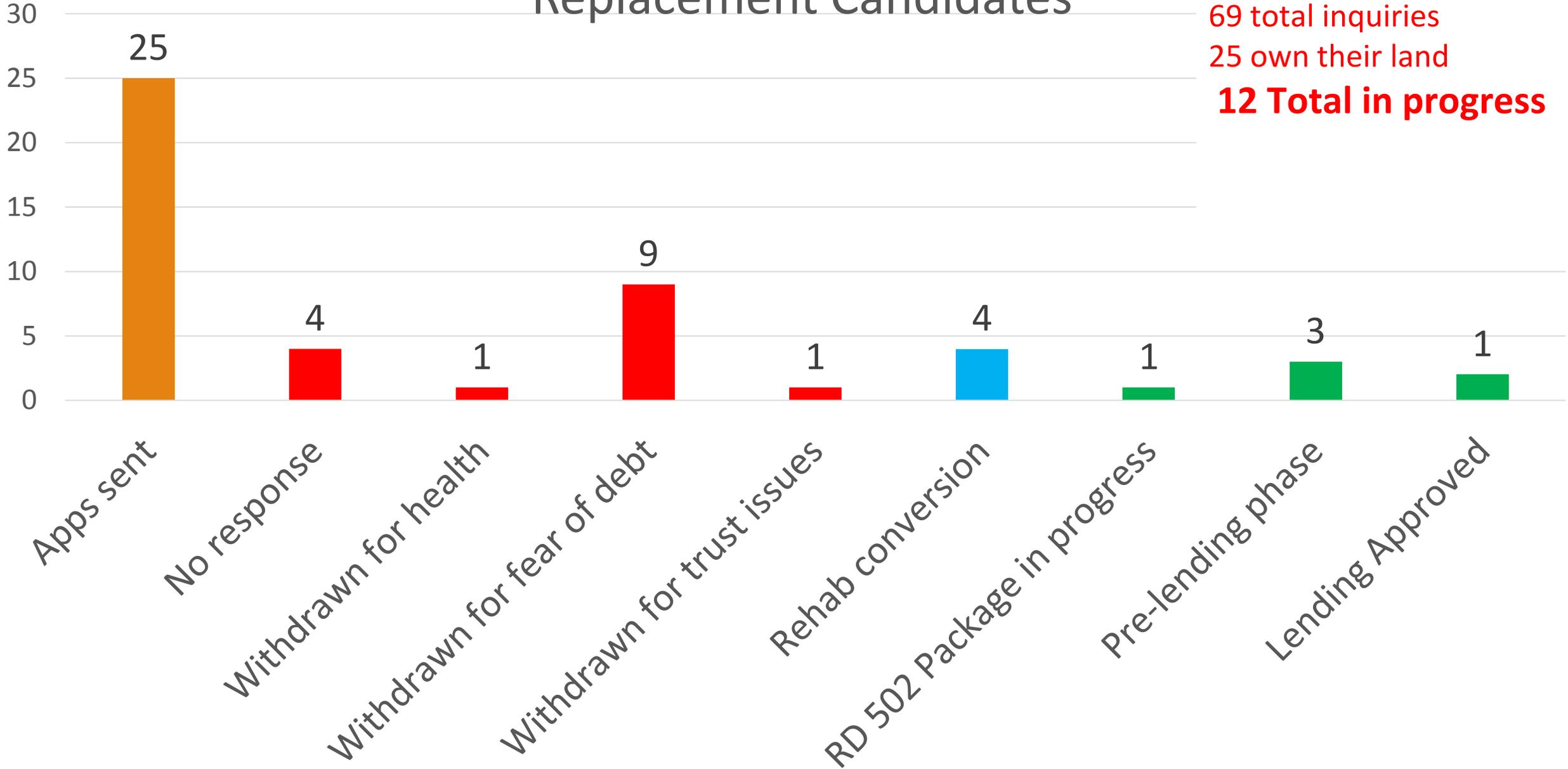
Septic: \$11,650

SUB TOTAL: \$73,000+ for single-wide, 2 bedroom home

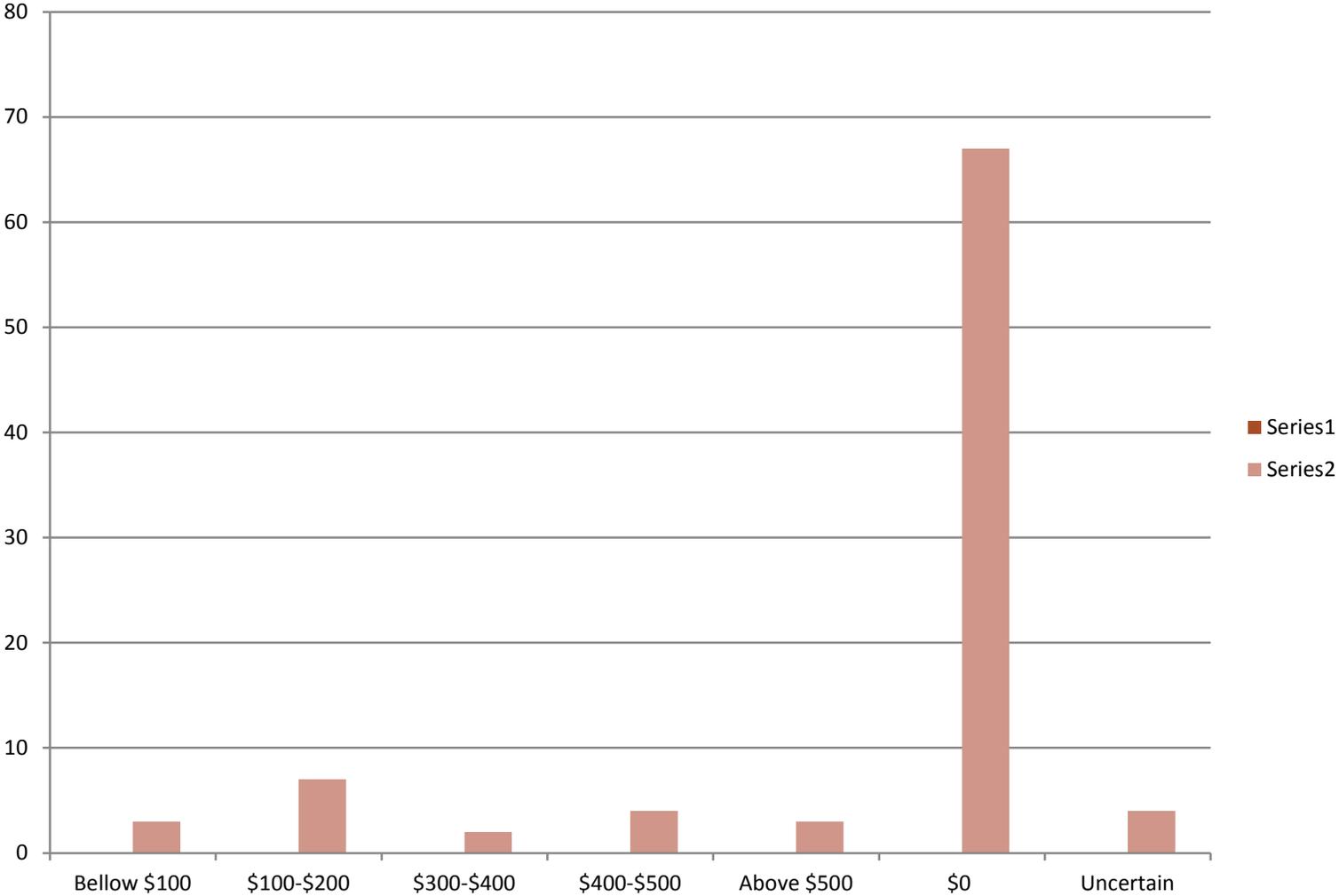
- *After testing (\$950), it was determined that this home has no asbestos hazard. If asbestos had been found, abatement would have cost an additional \$5,000.

Replacement Candidates

69 total inquiries
25 own their land
12 Total in progress



How much can you pay per month—on top of your current housing expenses—to repair or replace your current manufactured home?



Statewide survey with Portland State University.

Preliminary results only

Roadblocks--Replacement

Challenge	Solution	Status
Septic & well inspections; \$2,000 each per home	Add this cost to the final mortgage	In progress—but we need to ensure client will qualify before paying.
Septic and/or well repair; \$10k-20k each. Most homes will need	<ul style="list-style-type: none"> RD 504 (if under 50% AMI) 	<ul style="list-style-type: none"> Works, but timing difficult
Lack of willingness for mortgage	Prove that this is affordable	1 st completion will build trust. Also, used homes?
<p>Appraisal problems; LTV too low</p> <ul style="list-style-type: none"> Appraisals do not reflect energy efficiency upgrades 		<ul style="list-style-type: none"> “Build our own comps” Reduce install cost—Curry County is expensive (Use one model only? Drop perm found?)
High percentage of MFH in parks—hard to help	USDA RD? Unsecured debt? Angel investor loan loss reserve?	Hmm...

Roadblocks—Repair

(Our waiting list for repairs in parks is nearly 50 clients long)

Challenge	Solution	Status
Same cost to repair as site-built home	“Stop bleeding” only?	No change in current repair standards
Can’t spend more than 50% value of structure with typical CDBG	Expanded environmental review allows up to 75%. Called “Major Rehab.” This is new to both NWU and OBDD-IFA	Ongoing; 31 homes repaired by May 2016
Misinformation, suspicion among MFH residents	Hold more meetings at the parks. Reply carefully to all calls.	Getting better.

Arthur Chaput | Director of Housing Rehabilitation

NeighborWorks Umpqua

Building Homes, Building Communities, Building Lives | nwumpqua.org

605 SE Kane Street | Roseburg, OR 97470 | 541-673-4909 | achaput@nwumpqua.org

ReHome Oregon: Testing Manufactured Home Finance Models for Oregonians

ReHome Oregon is a manufactured home replacement pilot program. Springing from a 2013 Health Impact Assessment that enumerated the dangers of living in substandard manufactured housing, ReHome is a collaborative effort lead by NeighborWorks Umpqua, Curry County, USDA Rural Development, the Oregon Solutions team, the Network for Oregon Affordable Housing, and other partners.

Manufactured homes are the last source of unsubsidized rural affordable housing. They are, however, notoriously difficult to finance; modern manufactured homes are quite well-built and can be placed on permanent foundations, but short-term high-interest chattel loans are still the primary financing vehicle. These loans and their tight credit requirements have priced many homeowners out of the market.

Home to nearly 4,000 manufactured homes, more than 40% of which have exceeded their useful lifespans, Curry County is a prime spot to test new replacement home financing models. USDA Rural Development has made some adaptations to its mortgage program to facilitate this; their loans are a fine product for lower-income homeowners, earning less than about 80% of Area Median Income. NOAH has agreed to help at the higher end of the market, with a mortgage program designed primarily for homeowners between 80% and 100% of Area Median Income (who are left out of most Rural Development programs).

The theory—backed up by preliminary data from the first four homes completed—is that reduced heating and healthcare costs will allow many homeowners to afford mortgage payments that would otherwise have been impossible. And indeed, owners of these new manufactured homes have reported wintertime heating costs hundreds of dollars lower than their pre-replacement average, as well as increased comfort, easier breathing, and better accessibility.

ReHome Oregon intends to replace 25 manufactured homes in Curry County over the next two years, and with the help of partners convened by Oregon Solutions will publish a best-practices paper at the conclusion of this pilot.



Home recently replaced in Sixes, OR

Low Income Workgroup
February 24, 2016
PNGC, 711 Halsey Street, Portland and by phone

Summary

After a recap of the November meeting, we had a round of sharing updates and achievements from around the region. New BPA staffer, Jess Kincaid was introduced and BPA provided an overview of new measures that will be coming out soon. Michael Mills from Oregon Solutions and Arthur Chaput at NeighborWorks Umpqua presented about their initiatives to solve the manufactured homes problem. Many manufactured homes in Oregon are in need up maintenance for health and safety reasons. If a home will be decommissioned, it is an opportunity to put a more energy efficient and long-lasting model in its place. There are some special programs to assist residents in Oregon with this and we discussed how that program may be accessible by others in the region. After a work session on creating materials for the region, we decided to move forward with creation of a Quick Start Guide for CAPs and Utilities. We brainstormed some ideas for content and had workgroup members sign up for sections. All sections are due to Summer Goodwin at BPA by end of day March 4. The draft guide will be used as a teaching tool at the Efficiency Exchange conference April 26-28 where there will be a breakout session on low income energy efficiency called [Low Income Energy Efficiency Cross-Fit: Get Fit in 75 minutes](#). BPA staff will work on assembling the tool. Once the tool is complete, it can be used at events and on websites as a tool to broaden the reach of the workgroup since many CAPs and utilities in the region do not participate in the workgroup at present. We ended with a discussion of the limiting factors for getting work done. Both CAPs and utilities have reasons for why more low income work isn't getting done. The workgroup members expressed appreciation for this open discussion. We made tentative plans to hold the next meeting the first week in June at Tacoma Power in Tacoma, Washington.

Attendees

In Person

Keith Kueny - CAPO
Steve Joel - HACSA
Jess Kincaid - BPA
Cyrus Collins, Columbia River PUD
Todd Blackman, Franklin PUD
Brian Fawcett, Clatskanie
Margaret Ryan - PNGC
Eugene Rosalie - NEEA
Jeremy Stewart - Tacoma
Donna Kinnaman - CAPECO
Kathy Grey - EWEB
Charlie Schifferdecker - EWEB
Casey Mitchell - CAT
Dena Hilde, BPA
Scott Leonard
Boyd Wilson - BPA
Sarah Moore - BPA

Carmen Kulp - CAT

Arthur Chaput - Neighborworks Umpqua
Michael Mills - OR Solutions
Paul Rich - ESG
Rojilio Cortez - MWVCAA
Shawn Collins - Energy Project
Carrie Nelson - BPA
Tom Cardy - Emerald PUD

By Telephone

Dan Elliott - OHCS
Wendy Gerlitz - NVEC
Michael Lubliner - WSU
Beth Vargus Duncan - OMEU
Pat Didion – Milton Freewater
Dan Kinnaman - Greys Harbor
Joe Collete - CSC

Deborah Peters, Okanogan
Linda Esparaza, Franklin PUD
Eric Miller, Benton REA
Ed Munson - Benton
Thomas Elzinga - Consumer's Power
Hans Berg - WADOC
Debbie DePetris - Clark

Elizabeth Osborne - WADOC/ NWPCC
Wid Ritchie –Idaho Falls
Christina Zamora - CAPAI
Brian D
Terry Mapes - BPA
Michael Lubliner, WSU

Recap of last meeting:

Discussion of low-income and hard to reach section of 7th Plan, Charlie Grist called in and shared this with us and asked for public comments.

Jeremy Stewart presentation of Tacoma DHP program

Workgroup Prioritization exercise - steering committee continues to work on the list generated and putting together products that the workgroup might use to broaden the reach

Round robin of developments and announcements to share:

- Steve - HACSA heat crisis program added three additional utilities to include some BPA utility customers
- Todd – Franklin PUD In-house program for qualifying people and a loan program. Continue to contract with local CAP agency
- Jeremy Stewart - Expanding multifamily program to include direct install lighting, hoping to scale back windows program
- Hans – WA state WZ+ health program starting up, will be able to report progress and savings in the future
- Mike Lubliner - working with Labor and industries starting to explore access to database for alteration permits for manufactured homes. More mini-splits going into manufactured housing in the state.
- Donna - CAPECO expanding staff to do more work in their service area, elected to expand to hire a second auditor to access BPA utility funds and Cascade Gas funds.
- Eugene - will be a session at EFX specifically focusing on rural communities. A significant piece of working with rural communities is working with low-income.
- Paul - work with 27 BPA utilities on EE programs. A focus in this rate period is the low-income measures. There are good intentions, but there aren't enough contractors to fulfill the measures in some rural areas. Working to convince contractors to participate. The \$3,800 cap for DHPs in these areas can be an issue.
- Steve - works with some of Paul's utilities, use same contractor in a small area. Going to coordinate the jobs with the contractor. Wasn't an official meeting to discuss, just happened informally after Oregon Network meeting.

Steve - Oregon meetings low-income are split so they have agency only meetings and meetings with utilities at different time in the meetings.

- WA - also has the low-income coordinators meetings and round tables. Not sure whether commerce would be interested in adding utilities to the meeting.

Hans (WA) - may be able to take a look at it. Utility may not find value in it. But, could look into creating opportunities.

Next Steps: follow up on potential to create opportunities

2. Update from BPA – Sarah Moore

Sarah introduced Jess Kincaid the new existing and new homes program manager.

Residential Sector BPA Implementation Manual Update

Will be released April 1. New measures:

- Insulated Exterior door for standard and low income – multifamily
- Ductless Heat Pumps - removed note about voltage on Qualified Products List. Was originally there to ensure quality of units installed during the pilot phase, but not needed with new spec for a higher efficiency. Change should bring down product cost. But added specification for DHP use of a vacuum pump and a dedicated electrical circuit - in code in OR and WA already. Vacuum pump will be on the checklist for field procedures.
- In October increasing manufactured homes duct sealing payment to match single family
- Minor tweaks to weatherization specifications

Other items in process, but not guaranteed to be added at a specific date:

- Efficient Storm Windows - will be developing a spec ahead of National Fenestration Rating Council Currently no Energy Star rating, but they are developing one. May be able to make applicable to multifamily.
- heat pump water heater - Tier 3 (default settings)
- High Efficiency Clothes Dryers
- Thermostatic Shower Valves - suspends flow when hot water hits the valve, can turn on again when ready to use. Reminder that they're a big measure in the 7th Power Plan.
- Question - when the hot water hits it does it completely shut off the water? No - it shifts to a really restricted flow (Evolve shower head given as an example)

Sarah Moore requested Cost Data to support low-income measures, actual costs, equipment and install.

Most interested in collecting data on:

- Ductless heat pumps
- Heat Pump Water Heaters
- Insulated Exterior Doors

Next Steps: Need documentations of costs by Nov/Dec 2016. Looking for all installations, not low-income specifically. Would like itemized costs to the extent possible. Provided the data you can, actual costs itemized.

3. Presentations on Manufactured Homes Decommissioning

Michael Mills, Oregon Solutions - State of OR collaborative governance model that includes mediation and conflict resolution and helps communities accomplish community priorities. Working on housing and EE issues, interesting in sharing information on projects.

Process: ask Governor to designate as an OR Solutions project, start project - time varies.

Initiate project, and sign declaration of cooperation. Come back together at end and look at whether goals were met and give a boost to make project successful.

Managing project in Springfield to create a template to manage a community mobile home park closure. Goal is to streamline the process so it's easier for city staff to manage the process.

Question - has the organization worked with CAP's to help on various low-income projects? Not that they're aware of on housing issues, but yes on accessible food and health areas. CAP's would like to work with them on this; they are a resource because they're already in the parks and have relationships. There was also a comment on how these are good projects to pair with the healthy homes and Wx.

Lents Neighborhood in Portland - 400 homes that are in the flood plane and have high insurance rates as a result. Trying to reduce the number of houses in the flood plane through raising houses, filling in, moving heat sources out of basements.

Not aware of similar programs in ID or MT, but they may be there. (Note to workgroup: if you know of any, please let BPA know.)

Margaret Ryan - invited the group to learn about the OR model and see if it is possible to expand around the state. Trying to introduce people to see if there is a way for the groups to work together. Particularly interested in leverage of funding to create movement. There has been discussion about utilizing USDA loan dollars at rural utilities to sponsor the projects.

Eugene - what is the scope of this discussion, parks closing or individual homes that can't be rehabbed efficiently? Rehome is the latter, Oregon Solutions is the former.

Their website has information on all the projects. Summer will post information on the BPA webpage as well.

Arthur Chaput, NeighborWorks Umpqua: ReHome Oregon manufactured Housing Upgrade Initiative. Aim to develop a financing model that would allow them to replace a few manufactured homes, and then scale up. Also rehabbing mobile homes for health and safety issues.

Started in Curry County. 3,800 families lived in MH, mostly owned by the government. 30% have serious health impacts attributable to them including respiratory problems, holes in floors, accessibility problems, homes are expensive to heat (53% more per square foot)

Running a CDBG rehab project to help fund this. Replacements have to own the land currently, but hoping to find a way to change that. Goal is to move the needle on health, safety and well being. Energy and weather tightness is the goal. Some projects include High Performance Manufactured Home program. Huge electric bill reduction. Goal is for the energy savings for the clients to offset the increase in the mortgage payment.

Unexpected costs - nearly every project has required septic and well replacement. And, energy savings haven't materialized for everyone. Looking to find a way to identify high users as a potential focus.

Specifications changed to be water and air proof, real slab and quality siding and roofing. Durable skirting a must to prevent pest intrusion. Prefer a DHP in every home.

Measure life? Still working that out, they're not as durable as they expected. Mike Lubliner- working to get weather barriers into Code. Expecting weather resistant barriers to be part of the requirement in the near future.

Still working to build trust with customers so that they move from application to actually replacing. Many people are reluctant to take on debt. The hope is that as they finish replacements there will be more trust.

Because NeighborWorks is using real estate not chattel loans, they're able to get a much better interest rate. Funding through multiple mechanisms. Because it's real estate, the taxes can go up but in Curry County not an issue because the taxes are very low.

Surveying potential participants to determine what they may be able to pay in monthly bill increase in order to participate in the program. As a result they're learning that the market may be smaller than they thought.

[Rural Utility Service EE and Conservation Loan Program](#), loan fund with approx. \$2m available to areas with less than 20,000 people. Loans can be used for anything that saves or produces energy. Think there may be an opportunity for one of the utilities to apply for the funds and work with partners to set this up, possibly with on-bill financing.

Rehab program will rehab about 25 homes.

Has a pretty good relationship with local CAP. Started to weave the programs together. About 75% of their rehab projects have involved Oregon Coast Community Action Agency

Next Steps: Arthur is asking for a partner in exploration on the rural utility loan service project

Michael Mills - interested in looking at this opportunity as well as other potential opportunities including identifying vacancies in parks and replacing homes with more efficient homes.

4. **Work Session** - Hosted by NEEA, BPA, and Council, "Low-Income EE Crossfit: Get Fit in 75 Minutes" Session is on April 26 from 10:45 - 12. **breakout session at Efficiency Exchange**

Format: Goal is to assist folks who want to learn how to get their efficiency program off the ground. Get an overview of how CAPs and Utilities work and which funds can be utilized. Then will break into presenters from each state.

Trainer - try to assess the needs of the participants that come to their table. Talk about things that could be tried, contracts set up, income verification and other start-up portions.

Looked at April meeting from last year to start preparing materials on how utility funding flows. Carrie's paperwork on the how the grant program works. Potentially creating a quick-start guide with some overlapping materials and some that are different.

Will have a person from each state available to present

Question: what materials would need to be included? These would be used for state specific training time.

- For group discussion
- Funding flow for utility programs

Task responsibility: BPA

- Guide for Utilities (Wid Ritchie) and CAPs (Steve)

- Glossary
- Contact list - utility list on one side, CAPs on the other of the regular participants in the work group (BPA)

- Best practices
- Value that the low-income programs bring to utilities
- High bills
- Customer contact

- One-Page case study for how they launched the program - utility that recently started (Northern Wasco PUD, Columbia Power)

- How they got board approval
- How they mapped out a plan with CAP
- How they completed the first house

(Margaret, Boyd/Travis, Keith, Paul, Donna, Shawn)

- How to bill under the utility program (completed already April 20 materials)
- Look at a comparison - Several will provide: Donna, Margaret, Paul

- Income eligibility/ Clarity around difference between agencies income levels
- BPA/ utility income guideline different than some states
- Ask state agency to do a one-pager on how the state does income differently

Task responsibility: Keith, Christina, Hans,

- Include a couple letters to CAPs from appreciative Clients

Task responsibility: Carrie will organize

Next Steps: send your parts to Summer Goodwin at BPA.

5. Discussion: What are the limiting factors to getting work done?

Shawn Collins, The Energy Project, asked for a conversation about best practices for utilities and CAPs working together, what the characteristics of the programs are and areas where there isn't a lot of work happening so we can better leverage the efforts.

Todd - local CAP has expressed concern about bottle neck about getting third party QA for their work (federal quality control inspector) right now there is a limited number of inspectors and it's creating a problem while they identify people who can go through the training. The auditor has to be a different person than the inspector now.

But, Oregon does it differently and allows the auditor to be the inspector.

Cyrus - local CAP paid for the utility to do the audits so that they alleviate this need. Must be BPI certified and have necessary work experience. This has opened things up for them. There still are time constraints but it is a great option.

Keith - because it's a new regulation they're trying to train up, but it really impacts the rural agencies that don't have as much staff to train up.

Sarah - This is an issue through the DOE fund, but not the BPA utility fund. Can the CAP work with the utility to share the projects? There are different mechanisms to serve the homes.

Shawn - the utility costs can't cover all the repairs, having dollars available for repairs would help with this.

Boyd - some utilities are not getting cooperation with the CAP agency. Want to find a way to make sure the funding is kept with their local ratepayers. This occurs when CAPs don't have enough staff to help a utility serve those customers.

Kathy - is the utility making clear the amount of funding available?

Boyd - it has been disclosed and the CAP can only use X percent of that.

Eugene - Cowlitz would take the people low on the wait list for the CAP and would serve them.

Keith - it is up to the CAP and the local utility to determine how clients that aren't going to be served can utilize resources such as through the local utility.

Shawn - what are the specific reasons in each instance? Is it deferred maintenance, low staffing, other? CAP adds value by addressing other health and safety issues.

Casey - there is reluctance with caps that can't spend the money. Could put the CAP in touch with their peers to learn how to do it well. There are some that haven't figured out the tricks to make work, but there are ways to do it.

Steve - at least three of the utilities offer some admin money which helps.

Kathy - CAP agencies know there are customers in need that may never get served because they aren't high on the priority list and they give those customers to the utility.

Boyd - like the information sharing aspect.

Todd - is it true that if a CAP agency works in a home they can't revisit?

Keith - depends on the funding resource.

Todd - so there is an opportunity for the utility to go back and pick up the home

Keith - could create a partnership to have the utility serve some/ cap the others

Eugene - fiscal year allocations of funding can impact the spend rate.

Keith - could share the state rules with the utilities for the utilities to comment on them when they are in the draft form.

Summer - could post on Conduit when the state plans come up.

Cyrus - the funding sources are eye opening, they are complicated.

Steve - all the CAPs and all the Utilities are different. They operate differently.

Next steps: Include some of this information in the Quick Start Guide

Once we have the materials we can determine how to take them to a wider audience to remove the barriers.

6. Wrap up and next steps

Tacoma Power is willing to host next meeting in early June. Jess Kincaid (BPA) will be calling CAPs for the assessment that BPA is conducting.

DRAFT

Low Income Energy Efficiency Workgroup Meeting

Date: June 15, 2016

Time: 12:30 – 3:30 pm Pacific

Location: Tacoma Power 3628 S 35th St, Tacoma, WA 98409, ABN-G1 Room
and by WebEx

[Join WebEx meeting here](#)

Meeting number: 999 434 486

Meeting password: gPR5Wy27

telephone: 1-866-807-6648, passcode 7363190#

Meeting Materials can be found [here](#).

Draft Agenda

12:30 Welcome

12:45 Interior and Ambient Air Quality: Healthy Homes and PM2.5 (Small Particulate Matter) Initiatives

- Healthy Homes -Shawn Collins, the Energy Project and Emily Salzberg, Washington Department of Commerce
- Air Quality/ Woodstoves Partnerships and Non-Energy Benefits
 - a. NW Clean Air Woodstove Replacement Program - Shawn Collins, the Energy Project
 - b. Regional Solutions Initiative – Rob Del Mar, Oregon Department of Energy
 - c. Non-Energy Benefits - Phillip Kelsven, BPA

1:45 Break

2:00 Efficiency Exchange, Low-Income Cross Fit, Quick Start Guide

- Overview of session - Sarah F. Moore, BPA
- Quick Start Guide, Version 2 – Carrie Nelson, BPA
 - a. What ideas do people have, what would they like to see
- BPA facilitated discussion on next steps report out from each table captain
- Discussion from participants
 - a. What was the key thing you learned
 - b. What do you still want to learn
- Do we want to deep dive into any areas of discussion at next meeting?

3:00 Bonneville Utility programs update – Sarah F. Moore, BPA

- Review of existing low income measures
- New Measures:
 - a. Low-E Storm Windows
 - b. Exterior Insulated Door

3:20 Next Meeting Discussion – what would the group like to cover?

3:30 Adjourn



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Facilitator: [Summer Goodwin](#), BPA, 503-230-3158

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[Wid Ritchie, Idaho Falls Power](#)



Department of Commerce

Addressing Occupant Health: Weatherization Plus Health

*Emily Salzberg, Managing Director
Housing Improvements and Preservation
WA State Department of Commerce*

June 15, 2015

Washington State Department of Commerce

Commerce's core purpose is to
strengthen communities



Washington State Weatherization Program

- 3,000 average units weatherized annually
- 5 fund sources
- \$20,000 - \$50,000 average annual budget
- 28 agencies delivering services
 - Community Action Agencies
 - Local Government
 - Tribes



Washington State Service Partners



Weatherization Funding in WA

B O N N E V I L L E
P O W E R A D M I N I S T R A T I O N



\$2,269,134



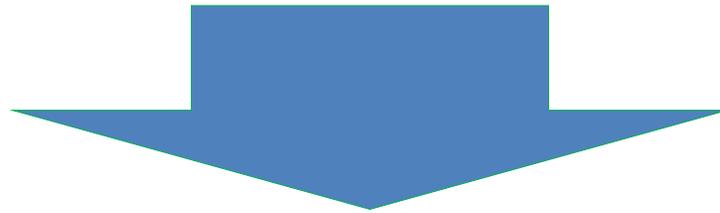
\$4,325,258



\$11,015,576



\$5,000,000



Department of Commerce

Fiscal Year 15/16

\$22 million

Matchmakers Program Legacy

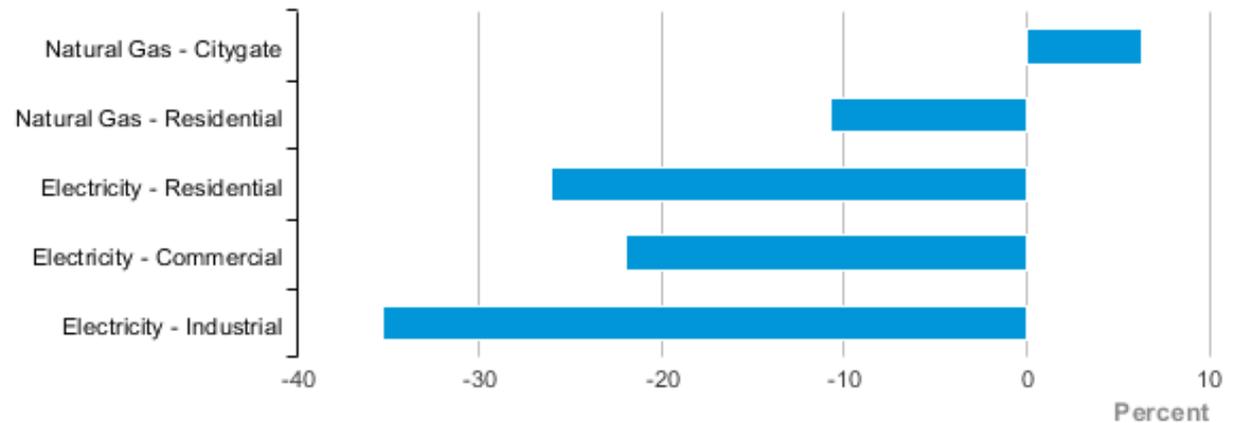
- The Matchmaker program has been successfully used as an incentive for utilities to begin and sustain investment in low-income weatherization.



Energy Costs in WA State

\$1.12/therm
\$0.0941/kWh

Washington Price Differences from U.S. Average, Most Recent Monthly

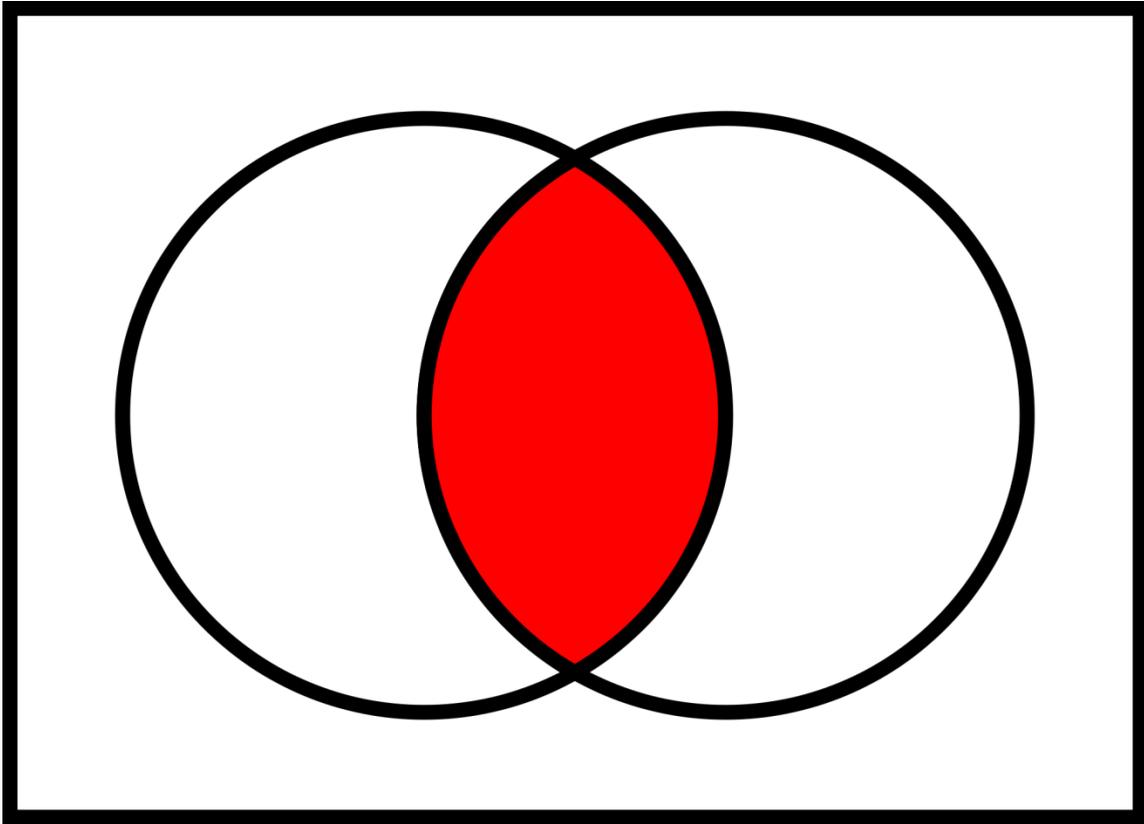


Source: Energy Information Administration, Petroleum Marketing Monthly; Natural Gas Monthly; Electric Power Monthly



Department of Commerce

Thinking Beyond Weatherization – Integrated Service Delivery



WA's Weatherization Plus Health Initiative



House Bill 1720 – 2015/16

...The legislature further finds that there is emerging scientific evidence linking residents' health outcomes such as asthma, lead poisoning, and unintentional injuries to substandard housing.



HB1720 - Concerning Healthy Housing

- **Extending** the useful life of affordable homes
- **Improving** the health and safety of residents
- **Integrating** energy efficiency activities and indoor environmental quality measures



Developing the Program



Aligning and Defining Goals

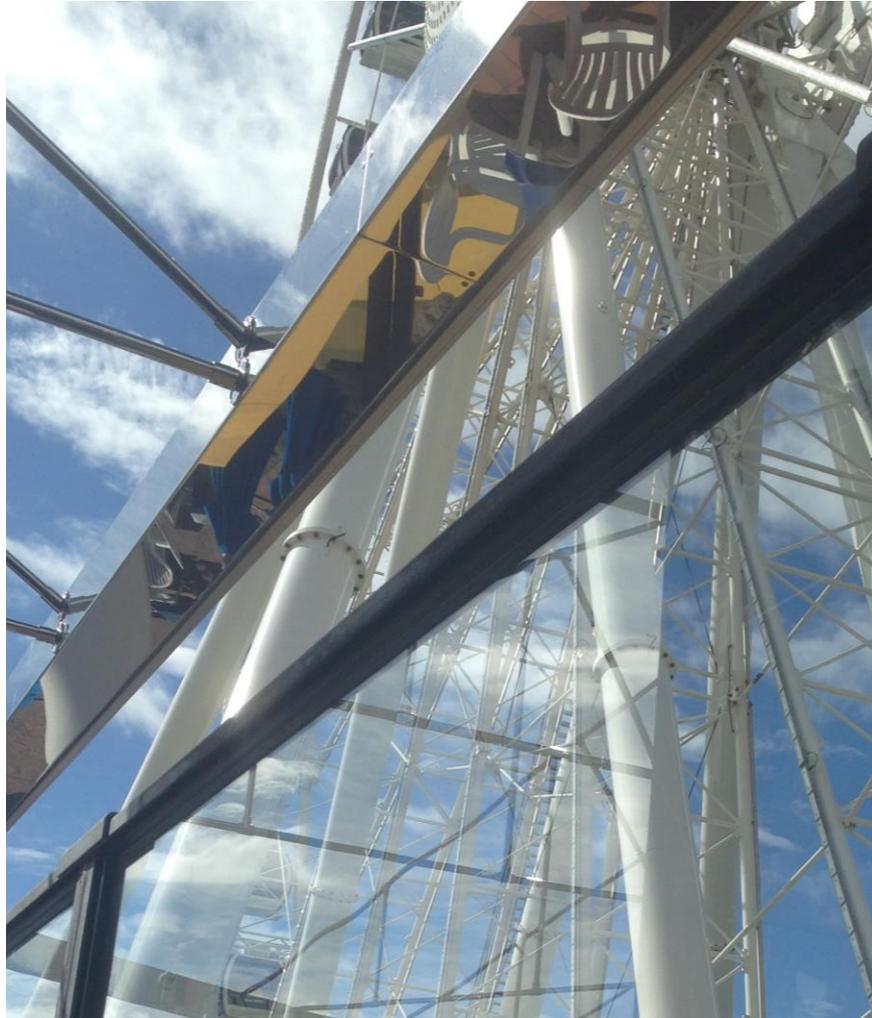


Weatherization Plus Health has six goals:

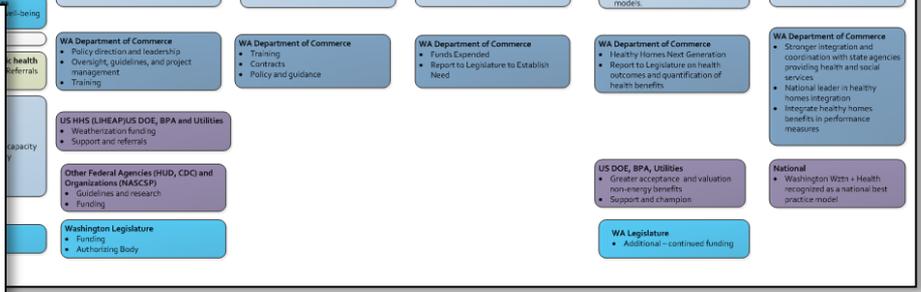
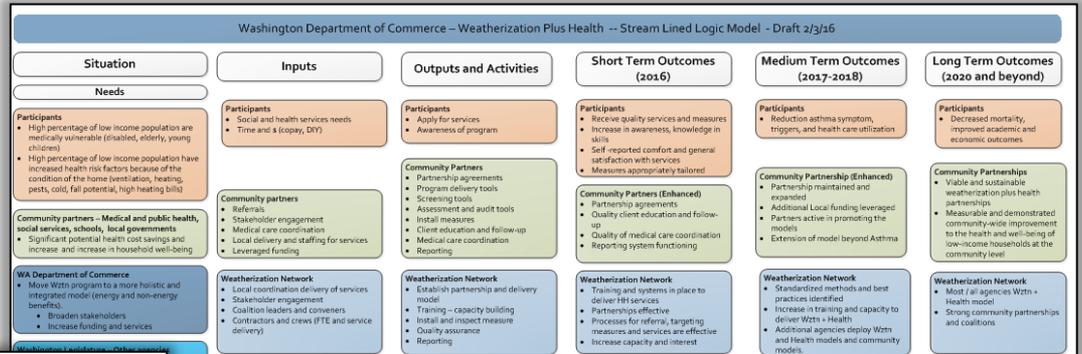
1. Develop a **collaborative infrastructure** for implementation of a statewide healthy homes program.
2. Ensure that homes meet minimum **health and safety requirements**.
3. **Reduce disease and injury** outcomes from housing related hazards.
4. Reinforce the understanding that **healthy housing benefits Washington** communities.
5. Ensure **Long-Term Sustainability** of the Healthy Homes Program.
6. Be a **national leader** of Healthy Homes (HH) innovation.



Building the Framework



Launch with Logic



Piloting Program Delivery Models



Research and Evaluation



Near-term Evaluation Objectives



Phase 1, June 2017, Document:

- What happened
- What was learned, and
- Whether the capacity to meet goals was demonstrated



Mid-to Long-Term Evaluation Objectives

Phase 2: More rigorous analysis of health benefits and non-energy benefits (2017 – 2019)

- Collect identifiers for **all** occupants
- Link to DSHS Integrated Client Database
 - medical and prescription utilization,
 - economic assistance
 - household stability
- Supplement with local data – where available
- Seek matching funds





Department of Commerce

Emily Salzberg

Washington State Department of Commerce

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Low-Income EEI Measures Update

Jess Kincaid, BPA New and Existing
Homes Program Manager

June 15, 2016



How to Find Existing Measures

**New Measure: Low-Emissivity
Storm Windows**

Measures are in the BPA Implementation Manual

How to find the Implementation Manual:

1. BPA.Gov
2. Energy Efficiency
3. Implementation Manual

Low-Income Measures are in the Residential Weatherization Section

The Implementation Manual is updated October 1

Link: <https://www.bpa.gov/EE/Policy/IManual/Pages/default.aspx>

ALL PAYMENTS ARE DEPENDENT ON LOCAL UTILITY FUNDING AVAILABILITY

BPA allows customers to report costs directly attributable to the installation of the measure

This includes any cost incurred for meeting requirements and specifications

Customers may also report costs related to repair work directly associated with the installation of the measure that is required for health and safety or to ensure the efficacy of the measure

Repair costs must be documented on contractor invoices and reported separately

HOME TYPE	LOW INCOME QUALIFYING MEASURE	INSTALLED MEASURE COST PAYMENT - DOLLAR FOR DOLLAR (EXCEPT AS NOTED)
Single-family	Attic Insulation (up to R49)	Dollar for dollar
	Floor Insulation (up to R30)	Dollar for dollar
	Wall Insulation (up to R11)	Dollar for dollar
	Prime Window	Dollar for dollar, not to exceed \$20.00/square foot
	Low-E Storm Window	Dollar for dollar, not to exceed \$10.00/square foot
	Patio Door	Dollar for dollar, not to exceed \$20.00/square foot
	Exterior Insulated Door	Dollar for dollar, not to exceed \$400.00/door

HOME TYPE	LOW INCOME QUALIFYING MEASURE	INSTALLED MEASURE COST PAYMENT - DOLLAR FOR DOLLAR (EXCEPT AS NOTED)
Single-family	Whole House Air sealing	Dollar for dollar
	Prescriptive Air Sealing	Dollar for dollar
	PTCS duct Sealing	Dollar for dollar, not to exceed \$500.00
	Prescriptive Duct Sealing	Dollar for dollar, not to exceed \$500.00
	Ductless Heat Pump	Dollar for dollar, not to exceed \$3,800.00

HOME TYPE	LOW INCOME QUALIFYING MEASURE	INSTALLED MEASURE COST PAYMENT - DOLLAR FOR DOLLAR (EXCEPT AS NOTED)
Manufactured	Attic Insulation (up to R30)	Dollar for dollar
	Floor Insulation (up to R22)	Dollar for dollar
	Prime Window	Dollar for dollar, not to exceed \$20.00/square foot
	Low-E Storm Window	Dollar for dollar, not to exceed \$10.00/square foot
	Patio Door	Dollar for dollar, not to exceed \$20.00/square foot
	Exterior Insulated Door	Dollar for dollar, not to exceed \$400.00/door
	Whole House Air sealing	Dollar for dollar
	PTCS Duct Sealing	Dollar for dollar, not to exceed \$500.00
	Prescriptive Duct Sealing	Dollar for dollar, not to exceed \$500.00
	Ductless Heat Pump	Dollar for dollar, not to exceed \$3,800.00/DHP

HOME TYPE	LOW INCOME QUALIFYING MEASURE	INSTALLED MEASURE COST PAYMENT - DOLLAR FOR DOLLAR (EXCEPT AS NOTED)
Multifamily	Attic Insulation (up to R49)	Dollar for dollar
	Floor Insulation (up to R30)	Dollar for dollar
	Wall Insulation (up to R11)	Dollar for dollar
	Prime Window	Dollar for dollar, not to exceed \$20.00/square foot
	Low-E Storm Window	Dollar for dollar, not to exceed \$10.00/ square foot
	Patio Door	Dollar for dollar, not to exceed \$20.00/square foot
	Exterior Insulated Door	Dollar for dollar, not to exceed \$400.00/door

Installation requirements are in the appropriate section for each individual measure with installation details in the Residential Weatherization Specifications

New Measure: Low-E Storm Window

Required Preexisting Condition:

Either:

- (1) single pane any frame type (e.g., metal, wood, vinyl) without existing storm windows, or
- (2) double pane, metal frame only without existing storm windows

Low-E Storm Window Requirements

- **Emissivity of 0.22 or lower,**
- **Solar transmittance of greater than or equal to 0.55,**
- **Minimum glass thickness of 3mm,**
- **Minimum 10-year warranty on the window assembly and all individual parts, and**
- **If an exterior storm window, weep holes or other means to dissipate water**

Low-E Storm Window Installation Requirements

- **Must have the same opening type as existing window to facilitate ventilation and egress**
- **If installed with an existing metal frame window, must not have direct contact with metal frame**
- **Must be installed per manufacturer's requirements**
- **Must not be designed for seasonal removal**
- **Low-E coating must face the interior of the home**

Questions?

**Low Income Workgroup
June 15, 2016**

Tacoma Power and by phone

Summary

The meeting was held at Tacoma Power. Washington Department of Commerce reported on their Weatherization Plus Health program. It is hoped that work undertaken in the home to improve living conditions will have a positive impact on health. The Energy Project reported on woodstove swap out program in Washington State. BPA staff and other workgroup members who led the Low Income Cross-Fit breakout session at the Efficiency Exchange conference in Coeur d'Alene, Idaho, reported out on the main takeaways from the session and discussed the Quick Start Guide, which was officially launched at the conference. The Guide is aimed to help utilities and community action agencies who would like to do more energy efficiency work with low income households. The next meeting was tentatively scheduled for September 15th pending no other conflicting regional events.

Attendees

By phone

Andrew Gibb, Seattle City Light
John Blomgren, Orcas Power and Light
Anita Clever, Klickitat PUD
Paul Rich, Efficiency Services Group
Matt Deppe, McMinnville Water and Light
Debbie DePetris, Clark Public Utilities
Brandy Neff, PNGC
Eric Miller, Benton REA
Todd Williams and Lea Hops, Inland Power
Ed Monson, Benton PUD
Marcia Lemon, State of Montana
Ken Robinette, Idaho CAP
Cheryl Paoli, Idaho Power
Keith Kueney, CAPO
Randy Olsen, CA
Rob Del Mar, OR DOE
Suzie Azmus, NEEA
Pat Didion, Milton Freewater
Cyrus Collins, Columbia PUD
Joe Hoes, Midstate Electric
Ryan Davies

Michael Palmer, Inland Power and Light
Sarah Moore, BPA

In Person

Julie Hayes, Milepost Consulting
Boyd Wilson, BPA
Shawn Collins, The Energy Project
Melissa Podezswa, BPA
Amanda Rains, WA Commerce
Emily Salzberg, WA Commerce
Tim Bernthal, WA Commerce
Charlie Comstock, Alpha
Steve Jole, HACSA
Jess Kincaid, BPA
Todd Blackman, Franklin PUD
Kevin Watier, SNO PUD
Charles Schifferdecker, EWEB
Jeremy Stewart, Tacoma Power
Mark Percy, Tacoma Power
Carrie Nelson, BPA
Melissa Podeszwa, BPA
Summer Goodwin, BPA, facilitator

1. Announcements

- a. The workgroup steering committee has three spaces for utility representatives and three for non-utility. We are currently in need of a replacement for the utility seat the Margaret Ryan (PNGC) has held. Please express your interest to Summer Goodwin.
- b. Franklin PUD-started their first in house low income verification program. They are working together with the CAA on the project. They established a reasonable rate that they pay the CAP for doing the income verification for them. They continue funding the CAP agencies for work that they are doing and use the CAP for qualifying customers who come straight to them.
- c. Sarah Moore, BPA residential sector lead will be on detail for four months. Gary Smith will act for her while she is gone.

2. **Interior and Ambient Air Quality:** Emily Salzberg, Managing Director of Housing and Weatherization, provided an overview of the WA Commerce program to strengthen communities. Commerce hosts the LI Wx program for WA, which is delivered through CAAs, housing authorities, etc. The legislature asked Commerce to expand program to Wx plus health and healthy homes (residence with respiratory challenges). In the state of Washington for the first time, they can approach the work as a comprehensive program. It includes no cost and low cost measures, such as green cleaning, client education, ventilation, mold remediation, and drainage issues. The goals of program were established with stakeholder process and advisory committee. There are established reporting requirements and assessment tools. WSU is partnering with the state for the evaluation. In the first phase, they will document what happened and in the second phase (mid- to long-term) they will partner with Department of Health and Human Services to match their data with the weatherization data. Through the integrated database, they should be able to tell if there is a change in Medicaid or reduction in hospital visits.

3. **Northwest Clean Air Wood Stove Replacement Program:** Shawn Collins, The Energy Project, provided an overview of work with areas within Washington state with inversion issues to improve air quality by helping to fund programs for wood heated homes at all income levels. They are looking to partner with utilities to put in DHP, or EPA- approved wood stoves. In Eastern Whatcom County there is a community curing station so that residents who are going to burn wood for heat can age their wood. Burning cured/aged wood gives off less particulate matter.

4. **Regional Solutions Initiative:** Rob Del Mar, Oregon DEQ provided an overview of a similar program in Southern Oregon. There are two communities facing non-attainment by EPA because of poor air quality due to wood smoke. That air quality issue can impact the region economically. It is hard for new businesses, etc. The Regional Solutions Initiative provides for a local committee to make a recommendation to the legislature for the highest priority projects for funding. In 2015, they received \$1.5 M to do a woodstove change out program. It has been running for a year. So far they have had about 95 projects total. They have replaced with ductless heat pumps or better stoves. The tax credit program can be a challenge for low income customers to leverage.

5. **BPA Work on Non-Energy Benefits:** Phillip Kelsven, BPA, reported out on research on non-energy benefits research that BPA is doing. There are Weatherization and HVAC measures that are on the edge of cost effectiveness. MA has done research. Also the WAP evaluation did some work. There is a research plan on Conduit that lays out a literature review of what is out there currently and methodologies. He is working with the Regional Technical Forum on guidelines language. It may be possible to include this in the RTF's Total Resource Cost ratio. For example, fire prevention, indoor air quality, safety (children) are things that could be included in the non-energy benefits.
6. **Efficiency Exchange, Low Income Cross Fit:** Sarah Moore, BPA, went over what happened at the Exchange conference breakout session on low income energy efficiency (notes attached). It was a "Cross-fit" theme with trainers and tables for each of the four main states represented at the conference (MT, OR, ID, WA). There was a great turn out. Steve Jole and Shawn Collins mentioned that more utilities have become involved in this workgroup as a result of the session. There was a lot of interest in the nuts and bolts on how to get started. Ken Robinette reported that he was at the Idaho table and they talked about how CAPs work with IDEA group which has a contract directly with CAPs. They also talked about the audit process and how we can streamline invoicing. As a result of connections at the conference, there will be a PTCS training to certifying 15 cap agencies in Idaho in August. For utilities in MT, CA, WY, NV, the session was very much an introductory program. They got a basic overview and discussed how they can make the resources go further.
7. **Launch and Request for Feedback on [Quick Start Guide](#):** Carrie Nelson provided an overview of the launch of this new regional tool and led a discussion of how to promote it. Suggestions included a road show and a utility hosted event that presents the quick start guide. The group agreed that there should be away to solicit feedback on the QSG.
8. **BPA Utility Programs Update:** Jess Kincaid briefly reviewed low income measures and provided a briefing on Low E storm windows which will be in the October Implementation Manual.
9. **Wrap-Up and Next steps:** The Next meeting will likely be in mid- or late September in Portland. September 15th was suggested. Topics of interest included the renter market and split incentives; CAP and utility budget communication, how to avoid that last minute scramble; and how caps and utilities can work together for outreach to potentially eligible customers. There is interest in soliciting feedback on how the Quick Start Guide is valuable to folks who are new to the workgroup and this work. Utility staff who is interested in serving on the workgroup steering committee should contact Summer Goodwin by July 11th.

Meeting notes prepared by Carrie Nelson and Summer Goodwin, BPA.

Attachment: Notes from Low-Income Cross-Fit session at 2016 Efficiency Exchange Conference

LOW-INCOME CROSS FIT, 2016 ENERGY EFFICIENCY EXCHANGE SESSION

Major Themes Discovered (there were many other topics discussed)

- Participants would like training on logistics such as: paperwork, documentation, contracts, reporting, SIR versus deemed measures/ measure list
- Participants would like a detailed discussion of funding solutions including other funding sources and financing and how to spread funding around
- Participants would like to look more into mobile home replacement and upstream market efforts
- Participants would like guidance on building and maintaining CAP/ utility relationships
- Participants would like to discuss servicing rental properties

Summary of Notes Captured on Note Pads

Notes by State

Idaho:

- Share Current Partnerships
- Paperwork submitted by agencies
- Differences in utility programs and Idaho efficiencies
- Who retains documentation?
- How specific is language in contracts
- Understand how the utilities and CAPs work together
- PTCS training in Idaho

MT, CA, WY, NV:

- Creative / innovative solutions
- Budget considerations vs. Need and how to prioritize
- Value of homes versus the measure cost
- Learning what is offered, others are doing and how to implement
- Financing low and moderate income
- What support stakeholders need from BPA
- Split incentives (tenant/ owner) for LI
- For profit work to develop revenue
- SIR, energy savings calculations – software versus deemed approach
- Options for financing
 - Private capital
 - Loans
 - Rural utility service (USDA)
 - CDBG
 - Tribal funding
 - EGIA loan
 - Question: what problems does financing solve

Oregon:

- Reaching more clients
- Renters
- Upstream efforts
- Social media – targeting specific demographics
- CAP/ utility communication
- Uses of funding for leveraging
- Manufactured home replacement
- Costs
- Priority list used in WA
- Nonprofit purchase of parks
- BPA exploring a cash for clunkers program
- HSG presentation (not sure what that is)
- Upstream manufacturer efforts

Washington:

- Low-income baby steps
- Non-owner low-income
- Low-income WX CAP working with utilities
- Successful reporting tools
- Reach more people
- Learn more about BPA grant program
- Funding projects that exceed BPA funding
- Spending less money
- Easier/ quicker certification
- Financing options
- NGO collaborations
- Regional needs
- Managing DHP projects
- Gap between rebates and cost
- Renters
- Establishing a relationship with a CAP

Low Income Energy Efficiency Workgroup Meeting

Date: October 6, 2016

Time: 9:00 am-12:30 pm Pacific

Location: Conference Room C (basement), 911 NE 11th Ave (connected to BPA HQ)

[Join WebEx meeting](#)

Meeting number (access code): 995 061 215

Meeting password: ZmsRG333

Join by phone: **1-650-479-3208** Meeting Materials can be found [here](#). (not yet posted)

Draft Agenda

9:00 Welcome

- Recap of June 15 Tacoma meeting
- Round Robin of developments and announcements to share
- Building on the [Quick Start Guide](#)

9:15 Update from BPA

- Multifamily low income requirements – Jess Kincaid, BPA

9:30 Case Study: Multifamily Duct Sealing - Steve Jole, HACSA

9:45 Multifamily Opportunity and Motivators for Owners to Take Action - Faith Graham, MPower

10:30 Break

10:45 Check-in on Ductless Heat Pumps

- What are the actual installation costs? – Jess Kincaid, BPA
- US DOE funds for DHPs in Multifamily – Steve Jole, HACSA
- Ideas for Cost Containment – Travis Hardy, Northern Wasco PUD

11:15 Discussion: What is the best way to serve renters?

12:00 Wrap Up and Next Steps

12:30 Adjourn

Please note: the location is connected to BPA Headquarters. It is a government building. Please arrive early to go through security and bring a valid ID.



About this workgroup

BPA invites its public power customers and regional stakeholders to participate in the [Low Income Energy Efficiency workgroup](#). BPA is convening this workgroup as agreed to as part of the Post-2011 Review public process. Background on that process and Workgroup 3 can be found [here](#).

Facilitator: [Summer Goodwin](#), BPA, 503-230-3158

Steering Committee

[Hans Berg, Washington Department of Commerce](#)

[Todd Blackman, Franklin PUD](#)

[Shawn Collins, The Energy Project](#)

[Steve Jole, HACSA](#)

[Travis Hardy, Northern Wasco PUD](#)

[Wid Ritchie, Idaho Falls Power](#)

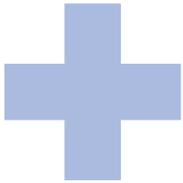
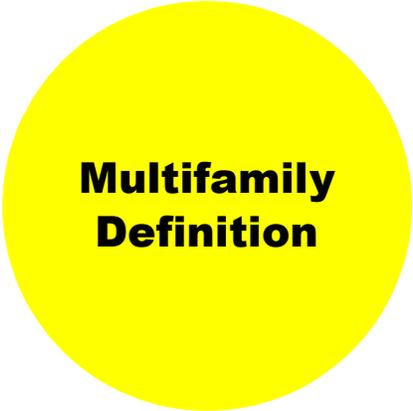
Low-Income Multi-Unit Weatherization Qualification

October 6, 2016

Jess Kincaid, New and Existing Homes
Program Manager

jbkincaid@BPA.gov





Multifamily Definition

Which Measure Set Applies to This Building?

Multifamily Definition

Base Rule:

- “Five or more dwelling units within the same structure are considered “multifamily””
 - One through four dwelling units within the same structure are considered “single family”

Multifamily Definition Exceptions

Exceptions to the Base Rule:

- “Townhouses, condominiums, or row houses that do not vertically overlap regardless of the number of units connected side-by-side can be considered “single family”” and
- “All multiplex units where each unit is thermally separated from ground to roof can be considered “single family””

Income Qualification Rules

What Payment Level Applies to This Building?

Income Qualification Rules

“Low-income household eligibility is defined in the Federal Weatherization Assistance Program as 200% of the poverty income levels. Approved statewide eligibility definitions may substitute for federally established low income levels, if provided.”

Income Qualification Rules 2 – 4 Units

“At least 50% of households in two, three, and four unit dwellings must income qualify... in order for the weatherization of the entire building to qualify for low-income Payments.

Utilities, however, may set more stringent requirements at their discretion.”

Income Qualification Rules 5 or More Units

“For multifamily properties with five or more units, a minimum of 50% of the households must income qualify in order for the weatherization of the entire building to qualify for low-income Payments.

Utilities, however, may set more stringent requirements at their discretion.”

Weatherization Rules Applied

1 Unit

- Single Family Measures
- 100% Must Income Qualify

2 – 4 Units

- Single Family Measures
- 50% or More Must Income Qualify

5 or More Units without Exceptions

- Multifamily Measures
- 50% or More Must Income Qualify

5 or More Units but Exceptions Apply

- Single Family Measures
- 50% or More Must Income Qualify

Low-Income Payments for Ductless Heat Pumps

October 6, 2016

Jess Kincaid, New and Existing Homes
Program Manager

jbkincaid@BPA.gov



“Measure Cost” and “Repair Cost”

LOW INCOME QUALIFYING MEASURE	INSTALLED MEASURE COST PAYMENT - DOLLAR FOR DOLLAR (EXCEPT AS NOTED)	<i>REPAIR COST PAYMENT - DOLLAR FOR DOLLAR (EXAMPLES PROVIDED)</i>
Ductless Heat Pump	Dollar for dollar, not to exceed \$3,800.00	<i>Examples include: improve structural support for interior head</i>

“Measure Cost” Explained

“Measure Cost ”

- Within Normal Requirements

**INSTALLED MEASURE
COST PAYMENT -
DOLLAR FOR DOLLAR
(EXCEPT AS NOTED)**

Dollar for dollar, not to
exceed \$3,800.00

“Repair Cost” Explained

“Repair Cost”

*REPAIR COST
PAYMENT - DOLLAR
FOR DOLLAR
(EXAMPLES
PROVIDED)*

*Examples include:
improve structural
support for interior head*

- Outside normal requirements
- Utility feels is appropriate and necessary to protect the integrity of the measure, or
- Utility feels is appropriate and necessary to ensure health and safety

Measure Cost Request

BPA Current Measure Payment Cap = \$3,800

What are your actual measure installation costs?

Please follow up by email (to document) to:
jbkincaid@bpa.gov by October 30, 2016



MPower Strategies For Sustainable, Affordable Housing



Getting to Yes

Faith Graham, Managing Director

FGraham@MPowerOregon.com

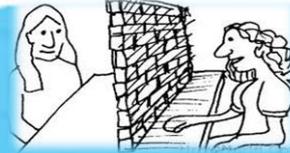


40% of CO2 emissions come from buildings

Apartments = untapped opportunity



Affordable Housing left out



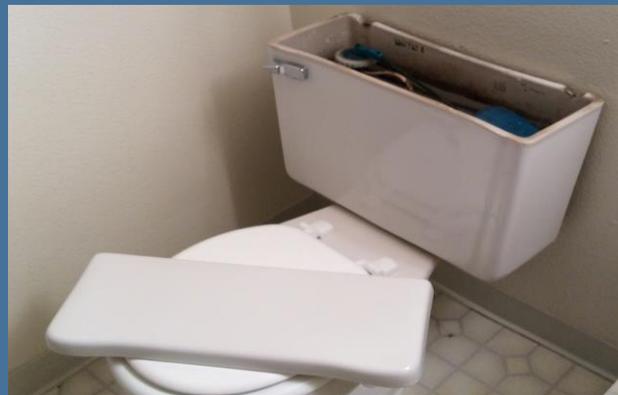
Revenues flat; utility costs keep rising



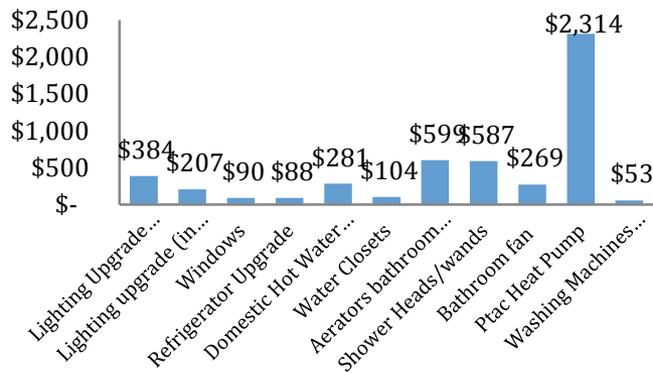
MPower was born as a collaborative solution.



Through incremental changes, MPower is addressing the inequitable impacts of climate change and improving affordability, comfort, and health outcomes in affordable housing.



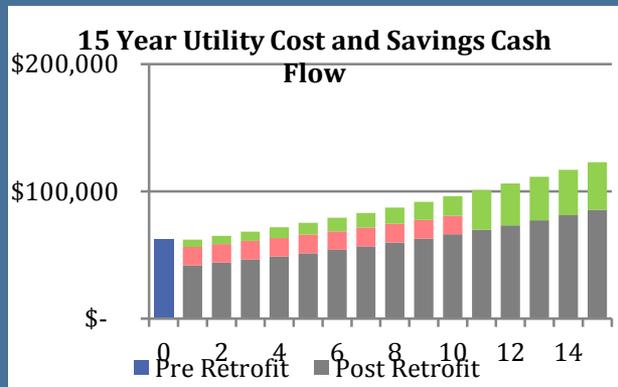
Assessment



Scoping



Bids and Pricing

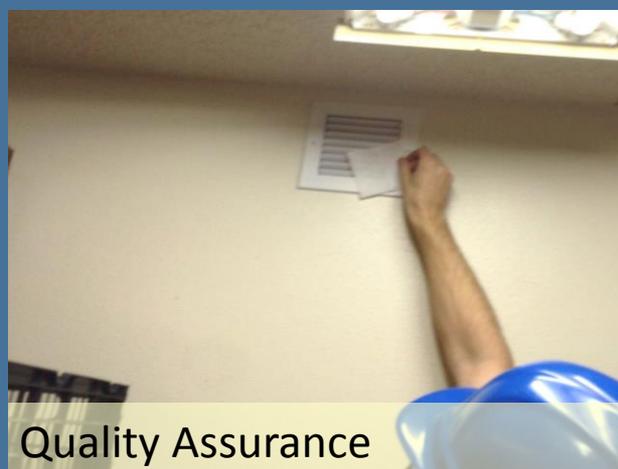


Financial

Full service solutions for efficiency upgrades



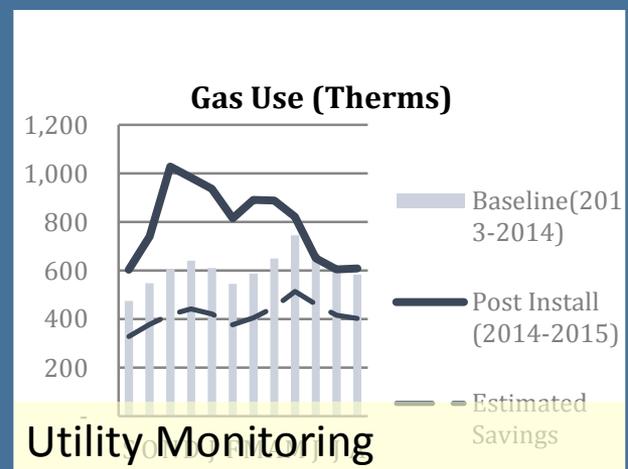
Construction



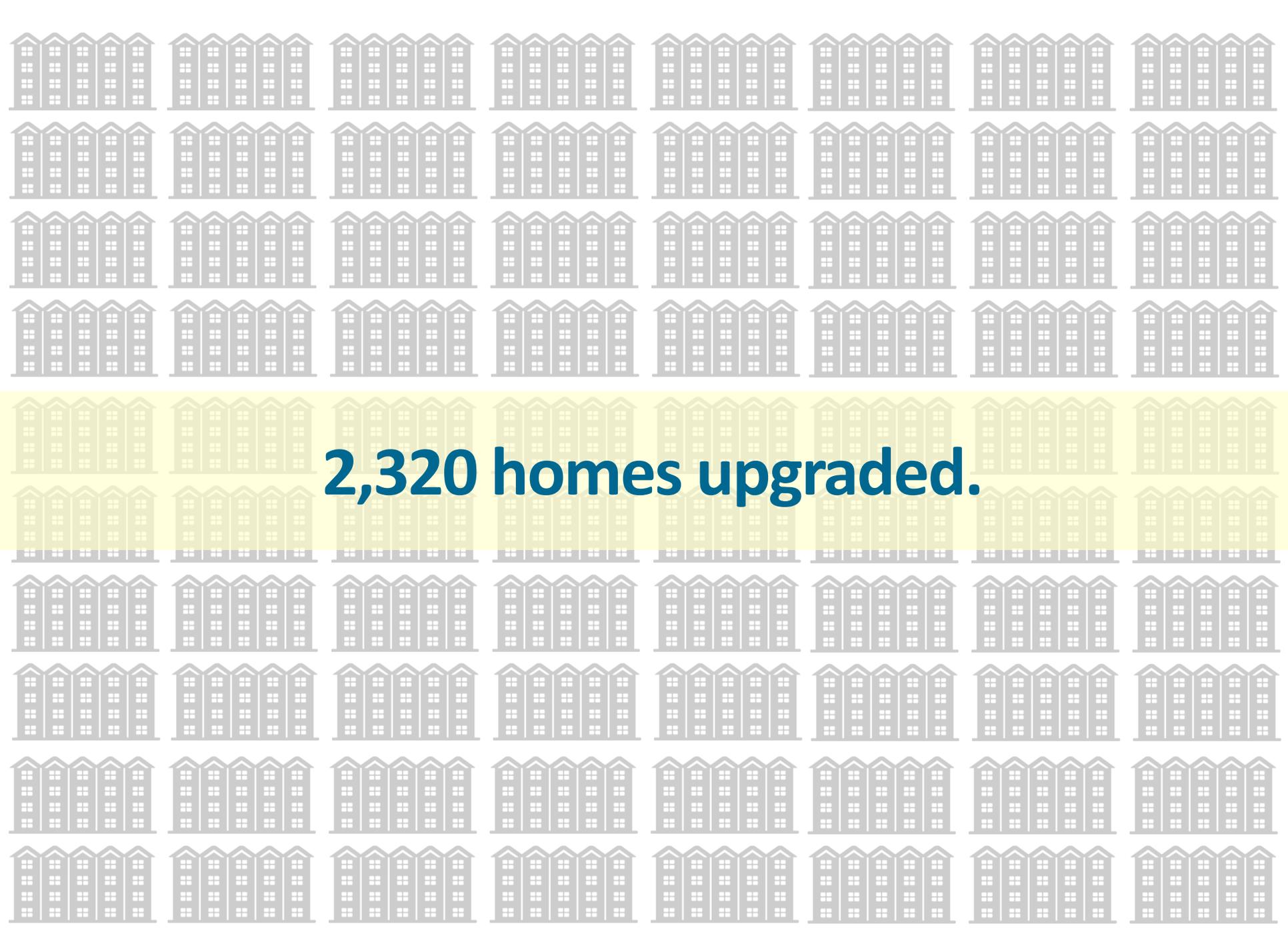
Quality Assurance



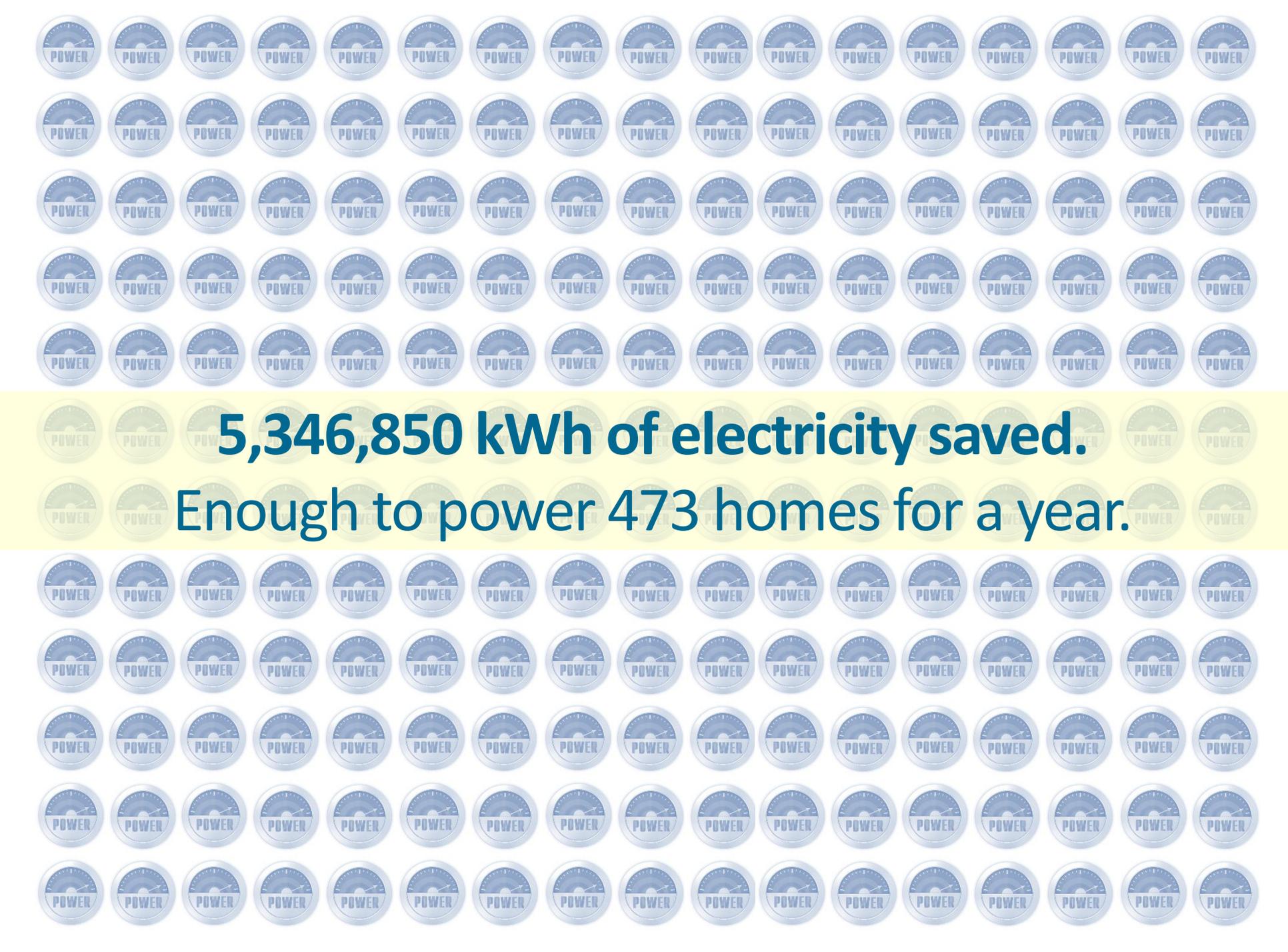
Resident Engagement



Utility Monitoring

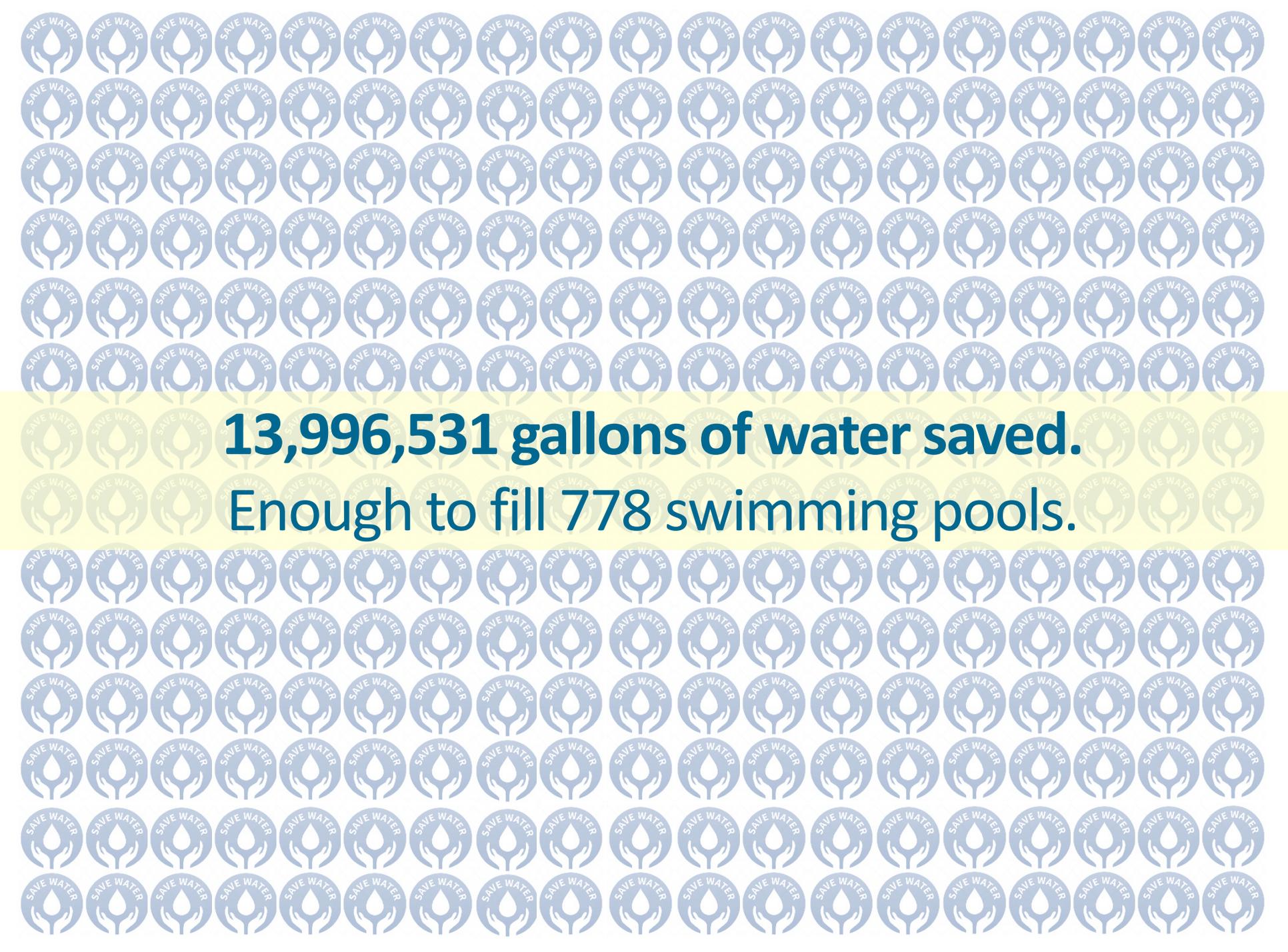


2,320 homes upgraded.

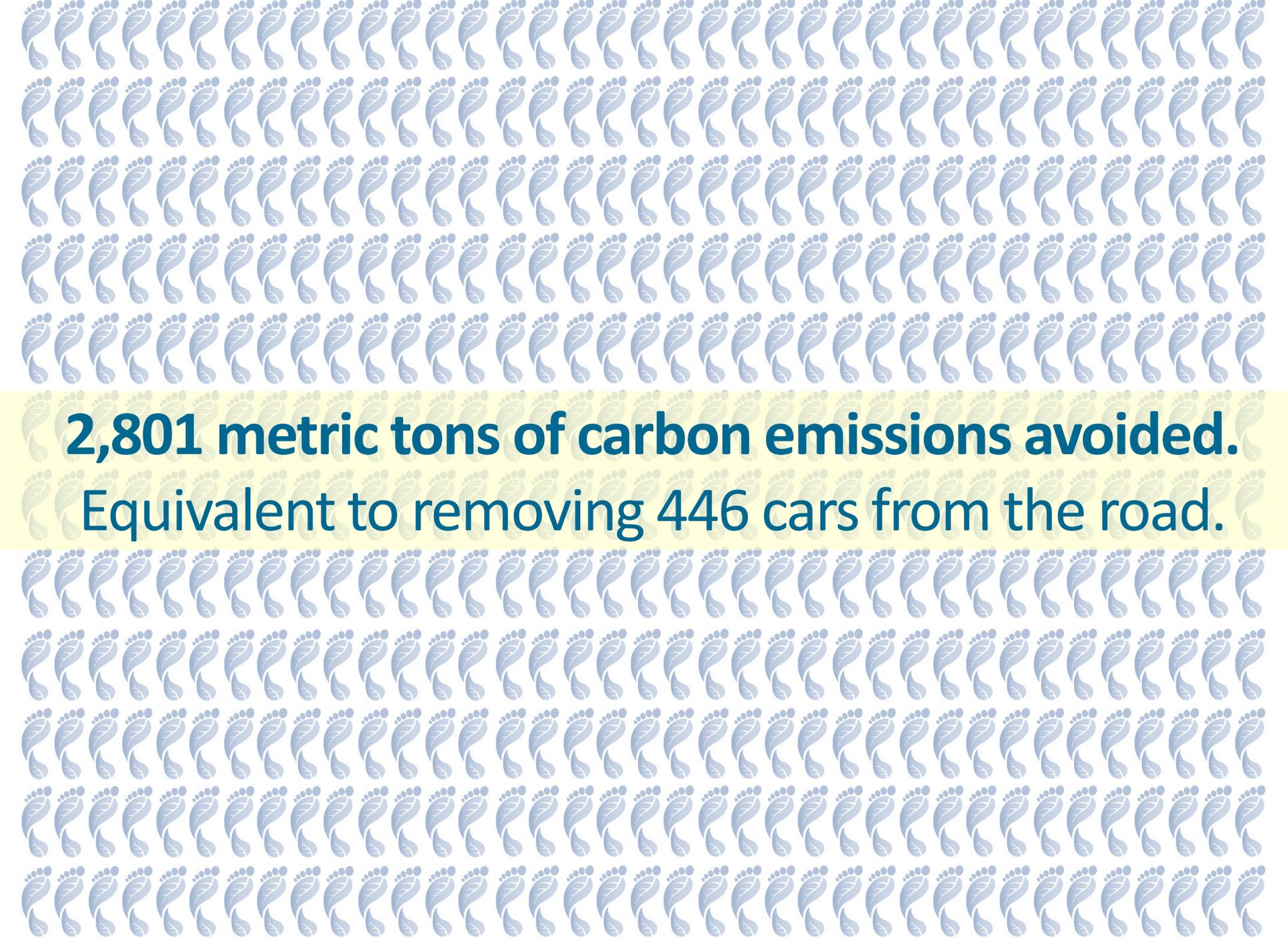


5,346,850 kWh of electricity saved.

Enough to power 473 homes for a year.

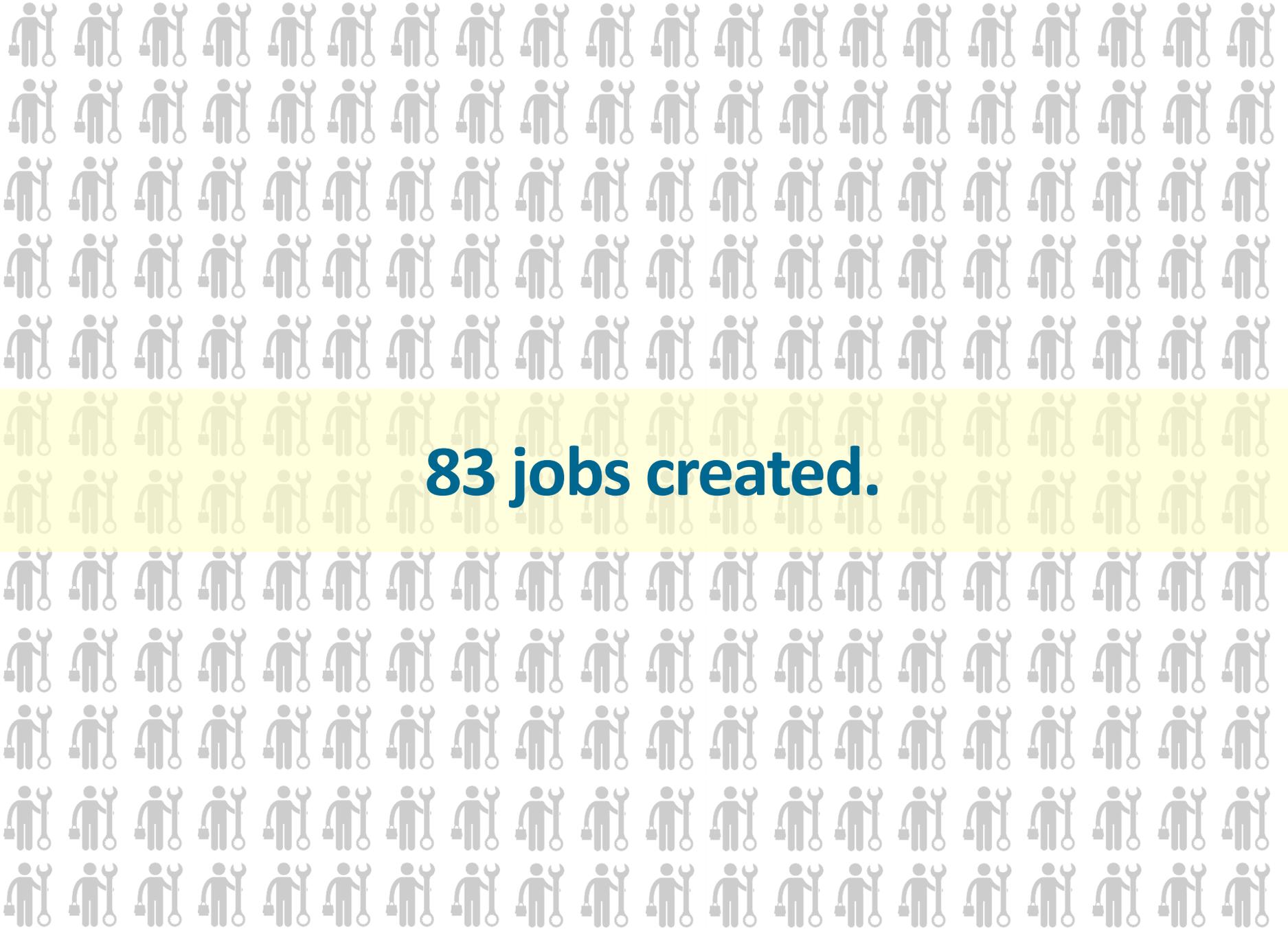


13,996,531 gallons of water saved.
Enough to fill 778 swimming pools.



2,801 metric tons of carbon emissions avoided.

Equivalent to removing 446 cars from the road.

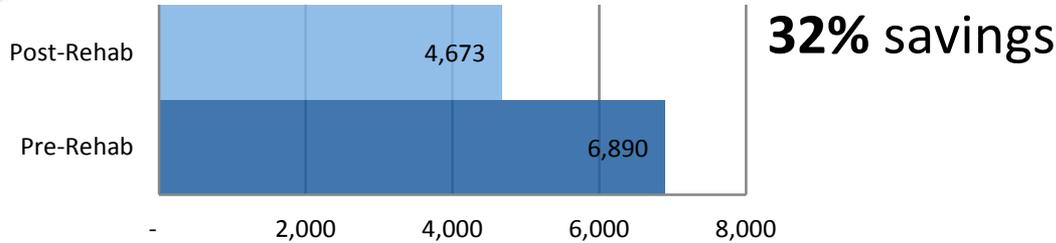


83 jobs created.

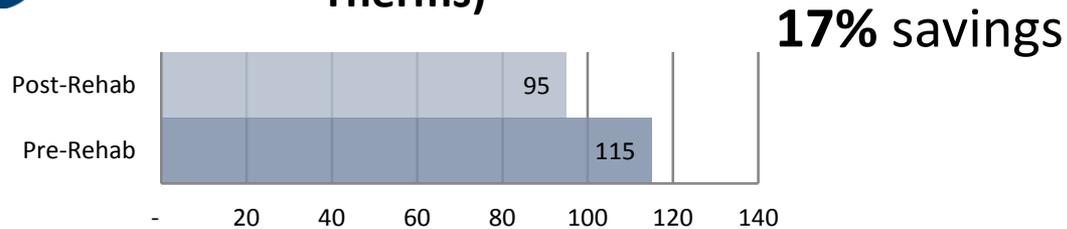
Portfolio Success



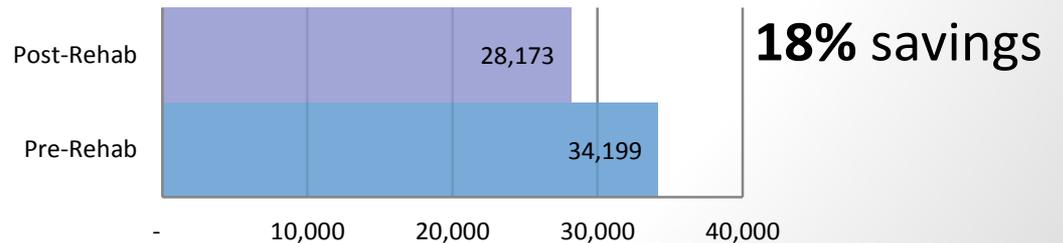
Electric Consumption (kWh)



Gas Consumption (MMBtu Therms)

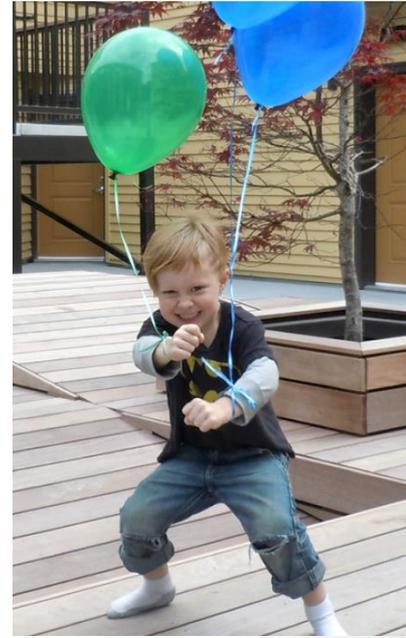


Water Consumption (gallons)



Non Energy Benefits

- Address capital improvement needs
- Reduce tenant turn-over
- Lower maintenance costs
- Resident comfort
- Resident energy cost savings allows more funds for food, childcare, health care expenses etc.
- Improve air quality = healthy homes
- Increase safety



Keys to Success

Capacity

- High touch coordination to manage every step of project evaluation and execution

Confidence

- Understand affordable housing ownership, finance and regulation
- Comprehensive focus on cost effective, sustainable practices
- Reputation as solutions provider

Capital

- Readily available incentives to bring down cost of upgrades
- Low-cost, unsecured loan funds
- Remove duplicative, conflicting or unnecessary barriers to access



HAJC Jade East

Jade East

- Housing Authority of Jackson County
- Grants Pass, OR
- 1972
- 15,800 SF
- Garden style family & senior units
 - 30 units
 - 4 studio
 - 10 one bedroom
 - 8 two bedroom
 - 8 three bedroom
- Upgrades completed in fall of 2014



Jade East

- Baseline Conditions:
 - Baseboard heaters
 - No T-Stats in bedrooms, controls at heater
 - ~50% of units had window AC units
 - Aged hot water heaters, several serving up to 4 units
 - Inefficient common area lighting throughout



Jade East

Financing:

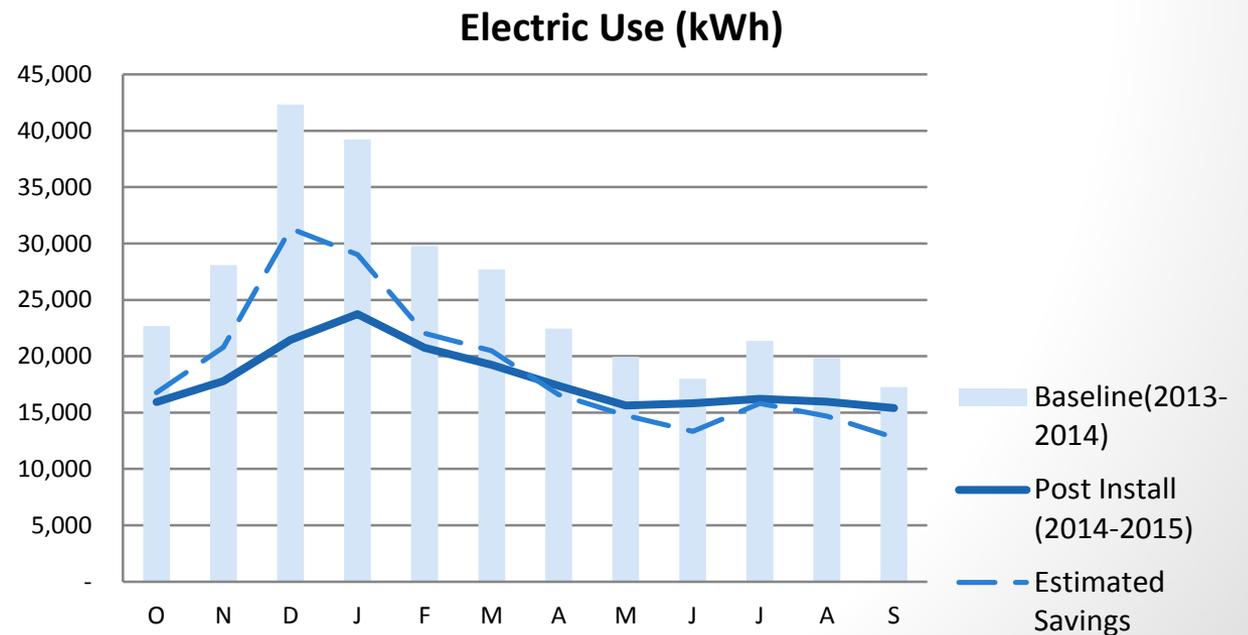
- Owner Investment: \$40,000
- MPower Loan: \$55,491
- Grant/Incentives: \$55,500



Jade East

Monitoring

	Estimated	Actual
Electric Reduction	26%	27%
Annual Utility Savings	\$6,177	\$7,143





Programs in Process

Increasing Impact

- Support new construction
 - Technical assistance
 - Efficiency coordination
- Water efficiency
 - Landscape efficiency
 - Irrigation assessment
 - Maintenance contract review
 - Water submetering
 - Efficiency coordination for existing
 - New construction offering
- Solar
 - Coordination and Financing of PV
 - Community Solar



MPowerOREGON™

Strategies for sustainable affordable housing.

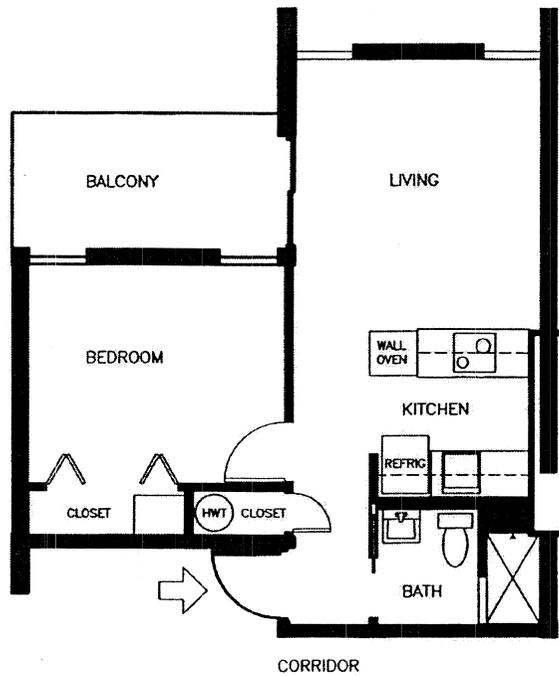
Faith Graham

FaithG@mpoweroregon.com

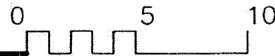
503.702.4871



35



TYPICAL
ONE-BEDROOM
FLOOR PLAN



1/8" = 1'-0"

NOTE

HALF THE APARTMENTS ARE OPPOSITE

RIVERVIEW TERRACE
925 WEST MAIN
COTTAGE GROVE, OREGON



Housing And Community Services Agency of Lane County
300 WEST FAIRVIEW DRIVE, SPRINGFIELD, OREGON 177 DAY ISLAND ROAD, EUGENE, OREGON
PHONE : (541) 682-4090 PHONE : (541) 682-3755
FAX : (541) 682-3875 FAX : (541) 682-3411
TTY : (541) 682-2565 TTY : (541) 682-3412

ONE BEDROOM

PROJECT AMP 600
DATE JUL 2014
DRAWN WJH
AMP 600 (B)

OR 6-07
SHEET

6-7 F

Riverview Terrace

1. 5 - floors plus basement and community room.
2. 60 - one bedroom units.
3. Current occupancy is 63 tenants occupying 60 units.
4. Walls are concrete, Outside and support walls look to be 9 ½ "of solid concrete and I am making the assumption the floors are the same. The interior walls are of 8" cinder block.
5. Roof looks to be of metal with a membrane cover.
6. All new vinyl windows and sliding doors, Installed approximately 5 years ago. With the following line up 4- 28"x 82" windows and 1 - 59"x 80" sliding door per unit.
7. PP&L monthly service fee is \$18.00

AMP 600

6-7

Riverview Terrace

Cottage Grove, Oregon

925 W. Main St., Cottage Grove, Oregon 97424

Dates:

6-7 The original blueprints for Riverview Terrace are dated 22 November 1966. It was very likely not completed or occupied until 1968 or later (due to size of project).

Tax Maps and Acreage:

Tax Map: 20-03-28-33 01400

Acreage: 1.544 Acres per original Surveyor's Map (dated Jul 2, 1966) in Original Construction Drawings.
67,263 Sq. Ft

Riverview Terrace Dwellings

ONE BEDROOM

60 One-bedroom apartments on Five Floors

Gross Sq. Ft. = 484 Sq. Ft. (Middle units)

Gross Sq. Ft. = 489 Sq. Ft. (Corner units)

Gross Square footage listed includes thickness of exterior walls and to center of party walls;

Net interior square footage (includes interior walls but not party walls or exterior walls) = 427 sq. ft.

Apartment balconies at 72 Sq. Ft. each

Riverview Basement Level

Gross Area: 3,251 Sq. Ft. (Does not include Stairs)

Community Room net Sq. Ft. approximately 1,350 Sq. Ft.

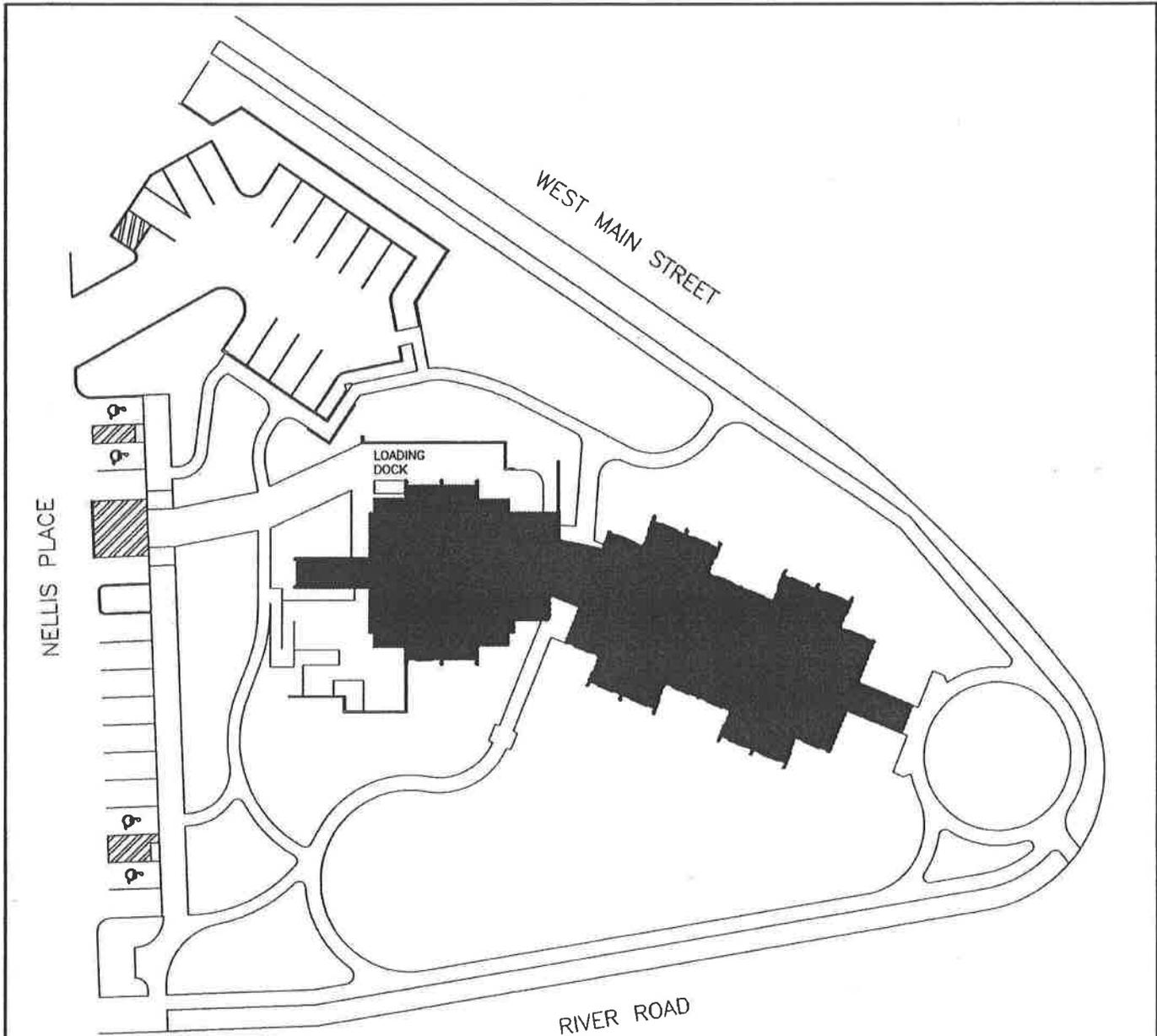
(Does not include Kitchen Prep areas or Elevator Lobby)

Parking:

North Parking area: 5, 250 sq. ft. of parking area and drive.

West Parking area: 2,875 sq. ft. of parking area.

Note: the drive for the West parking is a designated street (Nellis Place) and is not on Agency property.



AMP 600 (B) / BUILDING B_0008

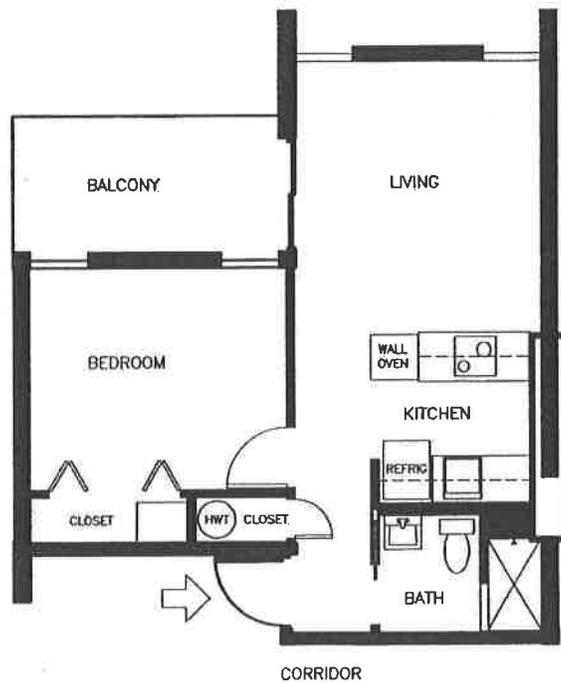


RIVERVIEW TERRACE SITE

1" = 50'

TAX LOT NO. 20 03 28 33-01400

	<p>RIVERVIEW TERRACE 925 WEST MAIN COTTAGE GROVE, OREGON</p>	<p>SITE PLAN</p> <p>PROJECT AMP 600 DATE JUL 2014 DRAWN WJH AMP 600 (B)</p> <p>OR 6-07 SHEET 6-7 B</p>
 <p>HACSA Housing And Community Services Agency of Lane County</p> <p>300 WEST FAIRVIEW DRIVE, SPRINGFIELD, OREGON 541 682-4090 177 DAY ISLAND ROAD, EUGENE, OREGON 541 682-3755 PHONE: (541) 682-4090 PHONE: (541) 682-3755 FAX: (541) 682-3875 FAX: (541) 682-3411 TTY: (541) 682-2565 TTY: (541) 682-3412</p>		



TYPICAL
ONE-BEDROOM
FLOOR PLAN



1/8" = 1'-0"

NOTE

HALF THE APARTMENTS ARE OPPOSITE

RIVERVIEW TERRACE
925 WEST MAIN
COTTAGE GROVE, OREGON



HACSA

Housing And Community Services Agency of Lane County

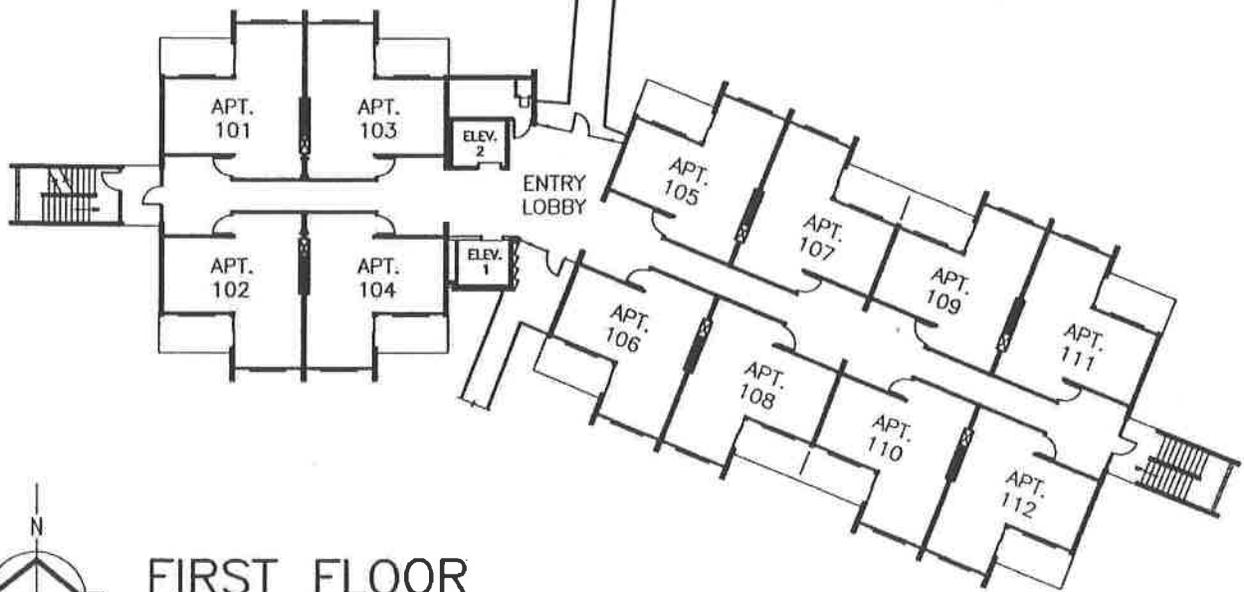
300 WEST FAIRVIEW DRIVE, SPRINGFIELD, OREGON 177 DAY ISLAND ROAD, EUGENE, OREGON
PHONE : (541) 682-4090 PHONE : (541) 682-3755
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ONE BEDROOM

PROJECT AMP 600
DATE JUL 2014
DRAWN WJH
AMP 600 (B)

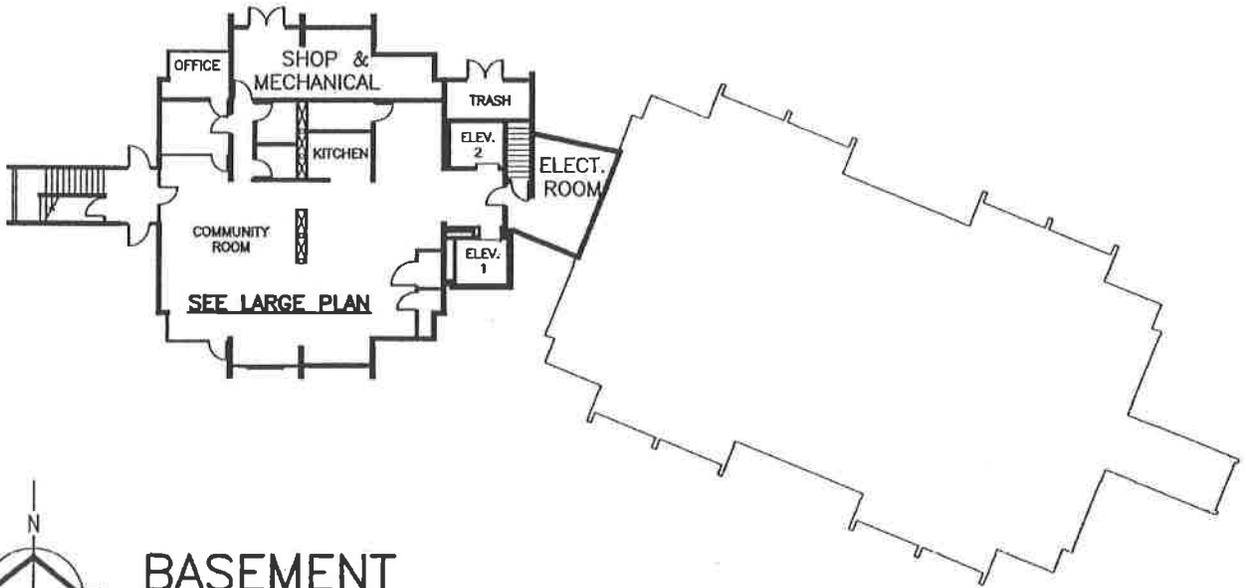
OR 6-07
SHEET

6-7 F



FIRST FLOOR

1" = 30'



BASEMENT

1" = 30'

RIVERVIEW TERRACE
925 WEST MAIN
COTTAGE GROVE, OREGON



HACSA

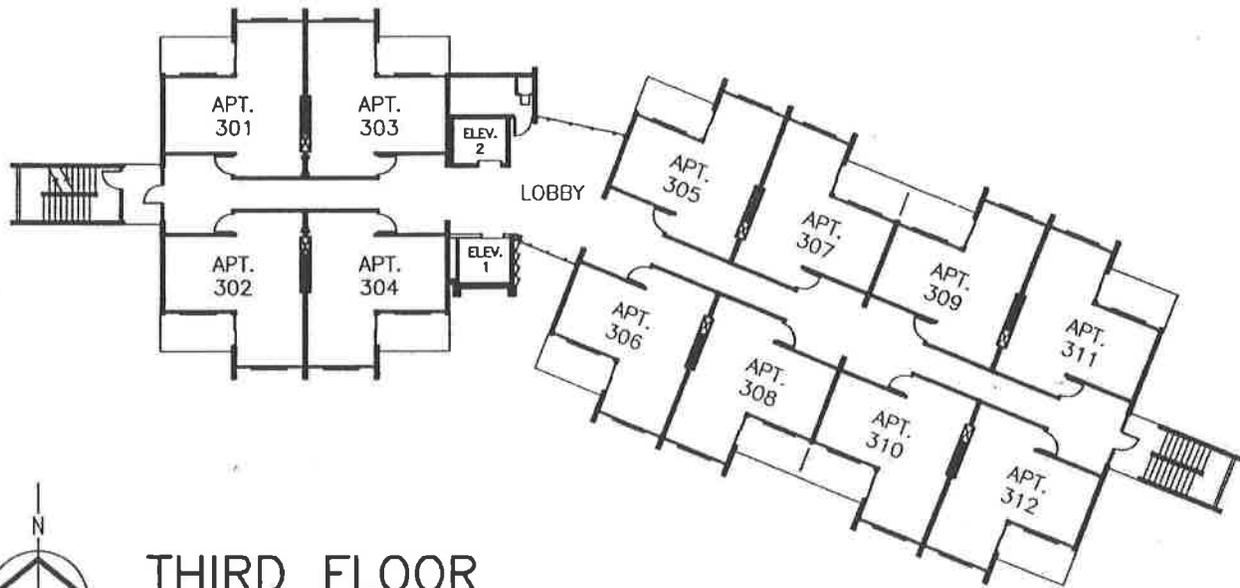
Housing And Community Services Agency of Lane County
300 WEST FAIRVIEW DRIVE, SPRINGFIELD, OREGON 177 DAY ISLAND ROAD, EUGENE, OREGON
PHONE: (541) 682-4090 PHONE: (541) 682-3755
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**BASEMENT &
FIRST FLOOR**

PROJECT AMP 600
DATE JUL 2014
DRAWN WJH
AMP 600 (B)

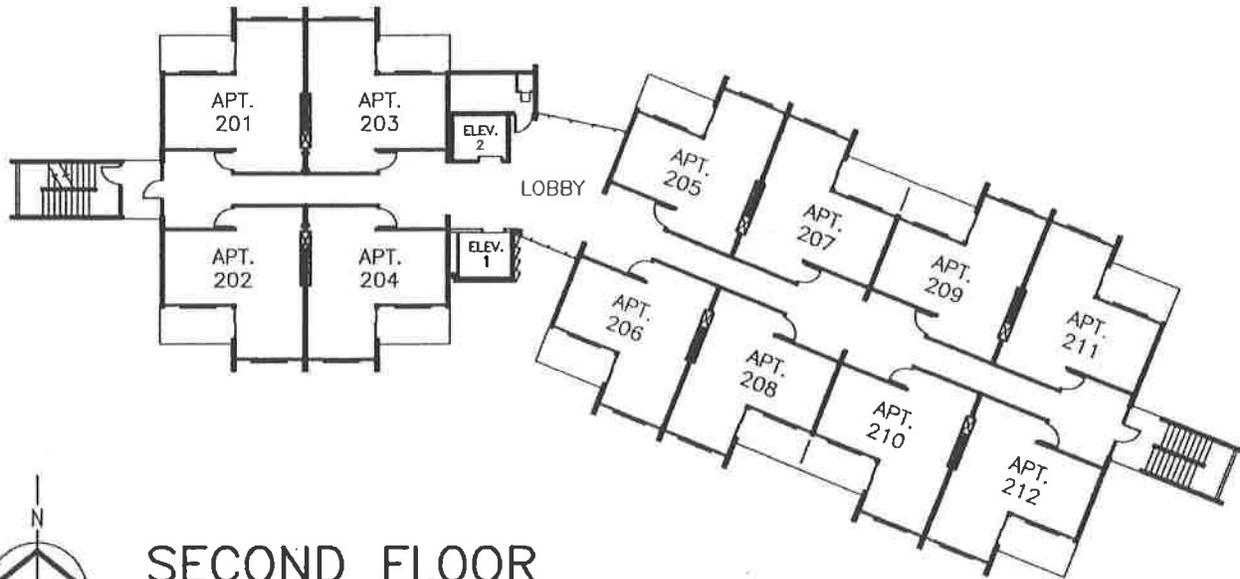
OR 6-07
SHEET

6-7 C



THIRD FLOOR

1" = 30'



SECOND FLOOR

1" = 30'

RIVERVIEW TERRACE
925 WEST MAIN
COTTAGE GROVE, OREGON



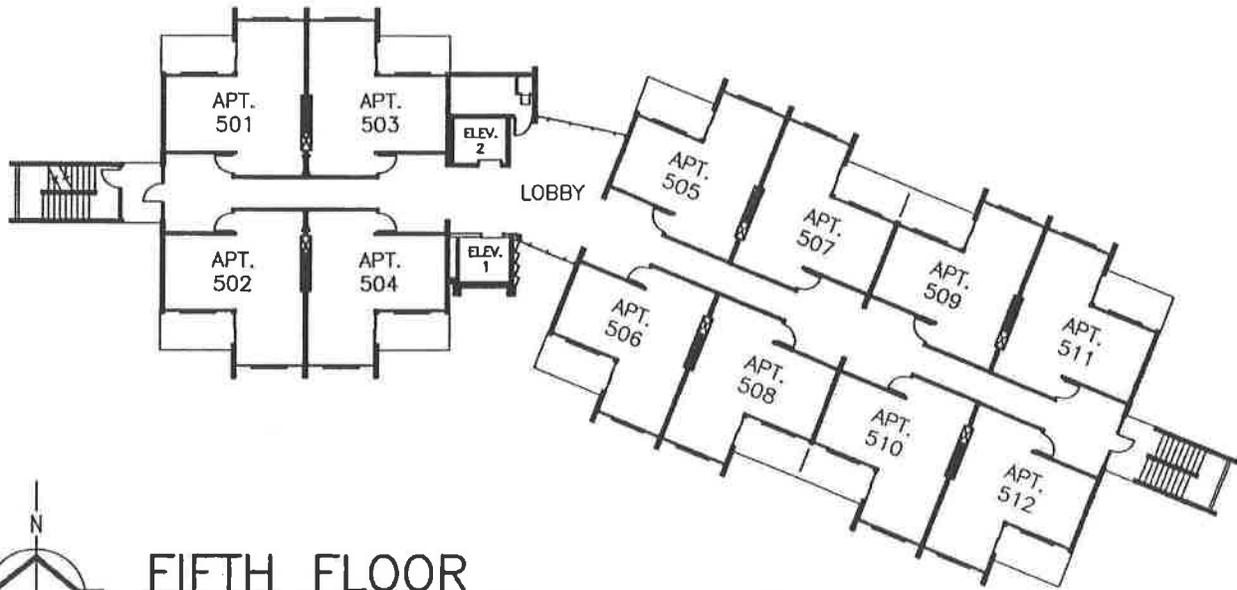
Housing And Community Services Agency of Lane County
300 WEST FAIRVIEW DRIVE, SPRINGFIELD, OREGON 177 DAY ISLAND ROAD, EUGENE, OREGON
PHONE : (541) 682-4090 PHONE : (541) 682-3755
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2ND & 3RD FLOORS

PROJECT AMP 600
DATE JUL 2014
DRAWN WJH
AMP 600 (B)

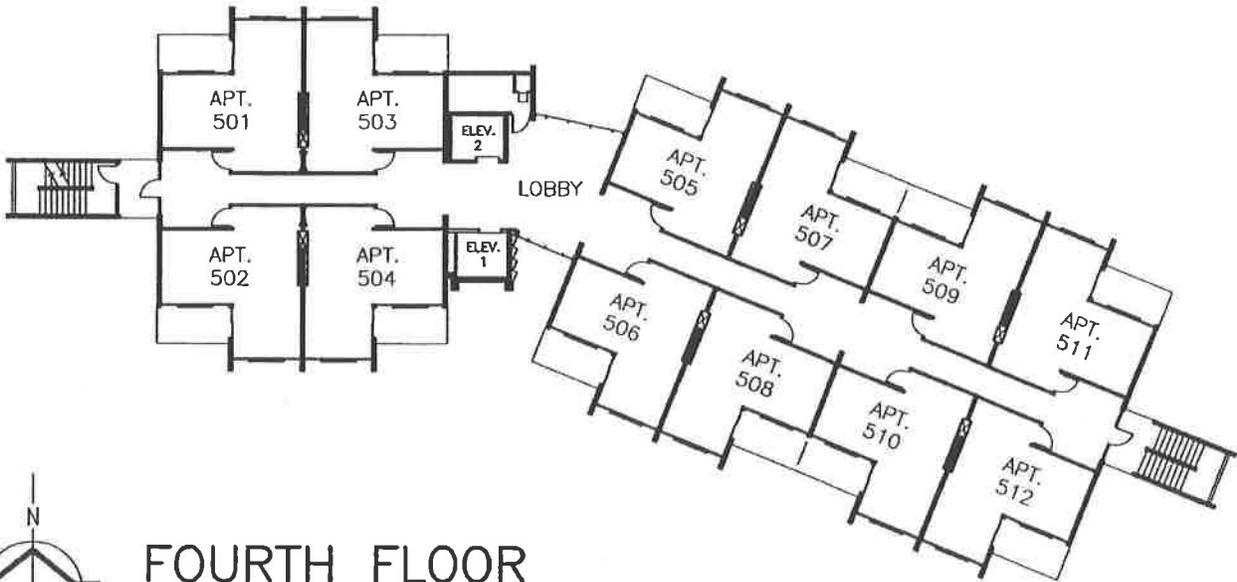
OR 6-07
SHEET

6-7 D



FIFTH FLOOR

1" = 30'



FOURTH FLOOR

1" = 30'

RIVERVIEW TERRACE
925 WEST MAIN
COTTAGE GROVE, OREGON



HACSA

Housing And Community Services Agency of Lane County

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4TH & 5TH FLOORS

PROJECT AMP 600
DATE JUL 2014
DRAWN WJH
AMP 600 (B)

OR 6-07
SHEET

6-7 E



P.O. Box 400
Portland, Oregon 97207-0400
1-888-221-7070
fax 1-888-800-2851
pacificpower.net

Billing and Usage History*

Agreement # 65213370-001-001
Site Address: 925 W Main Street Apartment 102, Cottage Grove, Oregon

Month	Read Date	Days	KWH Usage	Invoice
04	04/04/2016	32	920	\$100.59
03	03/03/2016	28	822	\$91.01
02	02/04/2016	28	1088	\$122.27
01	01/07/2016	31	1070	\$116.12
12	12/07/2015	35	1119	\$119.06
11	11/02/2015	31	513	\$60.41
10	10/02/2015	28	211	\$32.11
09	09/04/2015	31	124	\$23.35
08	08/04/2015	34	136	\$24.57
07	07/01/2015	28	127	\$23.66
06	06/03/2015	30	381	\$49.37
05	05/04/2015	32	553	\$66.78

* Information provided for the requested time period is valid as of the date this letter was created. Adjustments or other account activity may result in different information at a later date.

our true strength is
our connection to you

COMFORT
HEALTH & SAFETY

HOME Energy Report



EFFICIENCY
INVESTMENT



Prepared for:

Steve Jole

925 W Main Street
Cottage Grove , OR 97424

Prepared by:

Jose Flores

Multnomah County
Phone: 503-988-7436
Email: jose.flores@multco.us
421 SW Oak St
Portland, OR 97204

Steve Jole's Report

Dear Steve Jole,

Thank you for the opportunity to visit your home. I've performed a thorough inspection to test for overall energy performance and to address your primary concerns.

sjole@hacsa.us

As always, if you have any questions please feel free to contact me.

Jose Flores

In This Report

- Solutions for your home
- Solution Details
- Health & Safety Issues

TAKE THE NEXT STEP ▶▶▶

Call Jose Flores at 503-988-7436



We Suggest Air Infiltration New DHP Heating System for Best Value

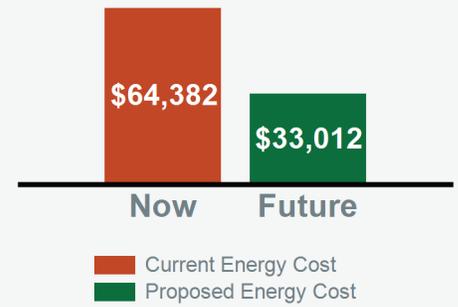
Estimated Annual Energy Savings

\$31,370

Est. Total Project Cost

\$240,000

Est. Annual Energy Costs



Fuel	Annual Cost	Annual Savings
⚡ Electricity	\$64,166	\$31,370

Package Savings Summary

Air Infiltration New DHP Heating System for Best Value

Total Installed Cost	\$240,000
Annual Energy Cost Savings	\$31,370
Monthly Cash Flow	\$853/month
Simple annual payback, years	8
Savings to Investment Ratio	2.1
Annual kWh Savings, kWh	32796
Total Energy Savings, MMBtu	973.1

Incentives & Financing

For more information on incentives and financing in your area, visit the link below:

psdconsulting.com/incentives



Package Savings by Improvement

Improvement	Non-energy benefits	Annual Savings
Heating Plant Improvement 1	Increased equity.	\$28,946
Heated Area Infiltration Reduction 1	Reduce drafts.	\$2,424

Rates Used

All estimated energy cost savings, payback and savings to investment ratios in this report are estimated using the following fuel prices:

Fuel Prices

Electricity \$0.11/kWh

Financial

Discount Rate 3.00%

Loan Interest Rate 8.00%

Loan Term 30 years

Improvements are ordered by savings. It's important to note that estimated improvement savings are calculated using the interactive saving of each improvement. Adding or removing improvements will change estimated saving for other improvements. The current combination of improvements have been selected together to maximize effectiveness. In the selection of a package, the energy contractor takes into account the health & safety, durability, energy efficiency of the home, and comfort of the tenants.

This report was prepared using proprietary software developed by Performance Systems Development. The potential energy savings in this report were calculated based on the average energy costs provided under the "Rates Used" table, standard energy engineering practices and the energy auditor's practical experience. Actual results may vary due to building alterations, occupancy changes, weather variations, operational changes, and other changes.

TREAT Financial Terms Glossary

Estimated Monthly Cash Flow: The net dollar value between the monthly loan payment (if the project is being financed) and the average monthly energy cost savings. The average monthly cost savings comes from the annual cost savings divided evenly into 12 months.

Simple Annual Payback (Years): The number of years it will take to recover the project costs. The lower the number, the faster the costs will be recouped.

Savings to Investment Ratio (SIR): The present value of cost savings over the lifetime of all improvements divided by the Total Installation Cost. An SIR greater than 1.0 will save more money than it costs over the lifetime of the improvements.

HOME ENERGY ANALYSIS REPORT

Audit Date: 7/20/2016



Heating and Cooling

Existing Conditions

System	Details
Primary Heating	Type: Electric Baseboard Fuel Used: Electricity Seasonal Efficiency: 100 % Year Installed: -

Est. Annual Savings

\$28,946

Est. Install Cost

\$219,000



Improvement Opportunity

Improvement Opportunity

Install Cost



Heating Plant Improvement 1: Install new electricity 11,900 Btu/hr AIR SOURCE HEAT PUMP with efficiency of 11.6 HSPF.

\$219,000

Non-energy benefits: Increased equity.

Estimated Annual Savings by Fuel Type



Electricity

\$28,946

General Information

An evaluation of your home's heating and cooling systems is an important component of an energy audit. This report contains information on your HVAC equipment's energy consumption, and, in the case of combustion appliances, health and safety measurements that indicate how well your HVAC and hot water heating systems are venting flue gases. Any systems that are not venting properly may put your home at risk by releasing carbon monoxide into the home. You can find more information about your combustion appliances in the Health and Safety portion of this report.

You can increase your home comfort and reduce energy loss from your HVAC systems through air sealing and insulation improvements. Upgrading the efficiency of your system and improving the duct systems that deliver heating and cooling to your home will also lead to increased home comfort and safety.



Hot Water

Existing Conditions

Type	Fuel	Year Installed	Set Point
Storage water heater	Electricity		120 F



No Improvements Recommended

Est. Annual Savings

-

Est. Install Cost

-

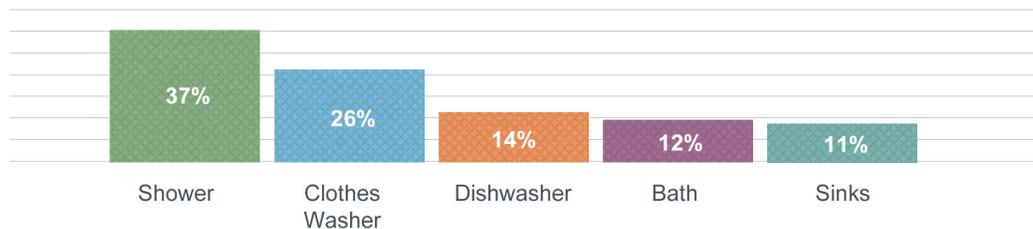
General Information

Heating water accounts for about 15 percent of a home's energy use. High efficiency water heaters use 10 to 50 percent less energy than standard models, reducing utility bills. Actual energy savings from high efficiency water heaters depend on family size, heater location, and the size and placement of water pipes.

You can make simple changes to reduce the energy consumed by your water heater by reducing your water heater thermostat setting to 120 F. You can also save water and energy by installing low-flow high-efficiency showerheads or bathroom and kitchen faucet aerators.

Typical Water Usage Breakdown

Average Water Usage Breakdown



Source: energystar.gov

HOME ENERGY ANALYSIS REPORT

Audit Date: 7/20/2016



Air Sealing

Existing Conditions

Air Leakage in All Conditioned Spaces = 0.5 ACH
 Industry Standard Air Leakage = 13309 CFM50 (0.35 ACH)

Est. Annual Savings

\$2,424

Est. Install Cost

\$21,000

Improvement Opportunity

Install Cost

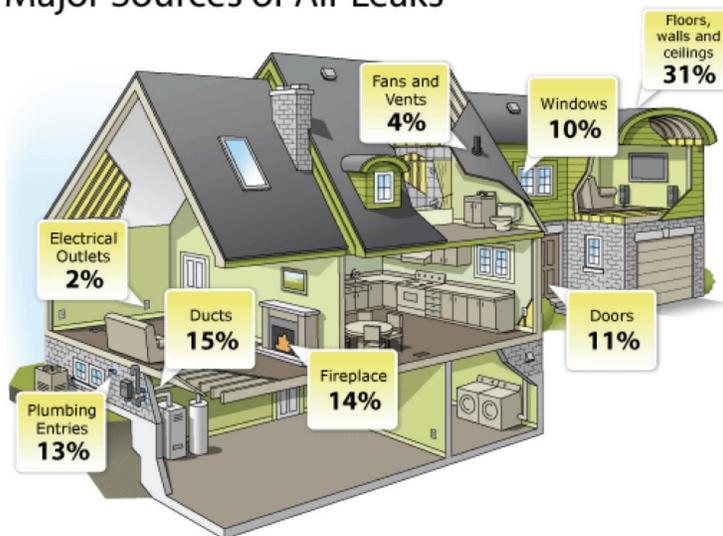
- Heated Area Infiltration Reduction 1:** Reduce overall air leakage of heated area from 0.5 ACH to 0.35 ACH. \$21,000
Non-energy benefits: Reduce drafts.

Estimated Annual Savings by Fuel Type

Electricity	\$2,424
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General Information

Major Sources of Air Leaks



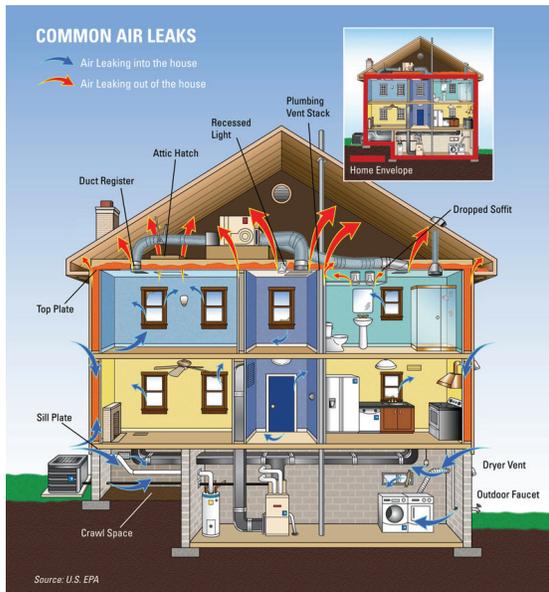
The image to the left shows common air leaks in the average home. Many people are aware of leaks around windows and doors, but others are trickier to see and seal.

Source: energystar.gov



HOME ENERGY ANALYSIS REPORT

Audit Date: 7/20/2016



Source: energystar.gov

During the energy assessment, I diagnosed and identified the significant air leakage sites. Many air leaks and drafts are easy to find because they are easy to feel — like those around windows and doors. But holes hidden in attics, basements, and crawlspaces are usually bigger problems and can waste up to 30 percent of the energy used by your heating and cooling systems. Sealing these leaks with caulk, spray foam, or weather stripping will have a great impact on improving your comfort and reducing utility bills.

Build it Tight and Ventilate it Right

A home that is both tight and well ventilated provides the best comfort and energy efficiency. Air sealing improvements can greatly benefit a home, and a ventilation strategy will keep both the building and its occupants healthy and safe. I measured the current building leakage and the minimum airflow standard to be sure that you get enough fresh air after implementing your energy improvements.



No Improvements Recommended

Insulation

Existing Conditions

Surface	Framing	Insulation	Area (Sq.Ft.)	R-value
Ceiling	Wood 2x6	None	5,760	R-2
Flat roof	Block 8"	None	5,760	R-2
Slab-on-grade	Concrete 6"	None	5,760	R-0
Wall	Block 8"	None	16,560	R-2

Est. Annual Savings

-

Est. Install Cost

-

General Information

Insulation is one of the keys to a comfortable, energy-efficient home. Properly installed insulation will completely blanket the home—exterior walls, ceiling, and floors—without gaps, voids, or compressions, and it will be in full contact with the interior air barriers (such as drywall). Think of insulation as a sweater for your home and air sealing as a windbreaker. Together, these improvements can greatly enhance the comfort and safety of your home.

Benefits of Properly Installed Insulation

- **Enhanced Comfort** - Properly installed insulation minimizes temperature variability indoors and helps keep rooms warmer in the winter and cooler in the summer.
- **Lower Utility Bills** - As much as half of the energy used in your home goes to heating and cooling. By preventing heat loss in the winter and heat gain in the summer, an insulation barrier reduces utility bills year round.
- **Improved Durability** - Insulation can reduce the potential for condensation that can lead to decay of building materials, helping to improve the durability of your home.



Windows

Existing Conditions

Glazing Type	Window Frame	Quantity
3/4" double glass, 0.5" air space, clear	Wood/vinyl, Operable	180

Est. Annual Savings

-

Est. Install Cost

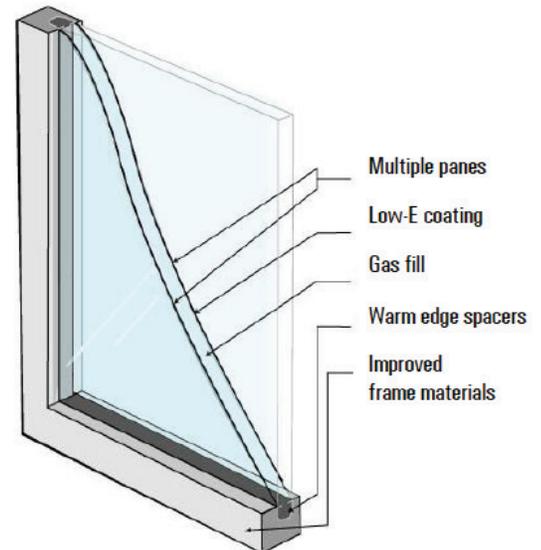
-



No Improvements Recommended

General Information

Windows can present weak points in the thermal boundary of your home. If you have single pane windows, you may want to consider installing storm windows or insulated double pane glass. ENERGY STAR qualified windows and skylights demonstrate superior energy performance, save money on utility bills, and protect your home's interior. Adding insulated window coverings can reduce energy loss from heating, and shielding your windows from sun can reduce your air conditioning costs and increase comfort.





No Improvements Recommended

Lighting & Appliances

Appliance & Baseload Breakdown

Detail	Cost
Domestic Hot Water	\$13,803
Kitchen exhaust fan, 100 cfm	\$1,056
Bathroom exhaust fan, 50 cfm	\$528
Oven, electric	\$3,960
Range, electric	\$5,940
Color TV, typical usage	\$495
Computer, typical usage	\$330

Lighting Details

Location	Description	Watts	Hours/Day
Whole Building1	typical Whole Building lighting	60	3

Est. Annual Savings

-

Est. Install Cost

-

General Information

Every appliance comes with two price tags: what it costs to take it home and what it costs to operate and maintain it each month. ENERGY STAR® qualified appliances incorporate advanced technologies and use 10 to 50 percent less energy than standard appliances. From refrigerators to clothes washers, ENERGY STAR qualified appliances save energy, save money, and help reduce emissions of greenhouse gases and air pollutants at the source.

Choosing more efficient light bulbs or light fixtures can also make a big difference on utility bills and your home comfort. Replacing the five most frequently used light fixtures in a home with ENERGY STAR qualified lighting can save about \$65 each year in energy costs. ENERGY STAR qualified CFLs & LED lighting operate at less than 100 degrees F and are safer than the halogen bulbs typically used in floor lamps or torchieres, which burn at 1,000 degrees F. Halogen bulbs, when improperly handled, can cause burns and fires due to their high heat output. ENERGY STAR qualified CFLs also generate about 75 percent less heat than standard incandescent bulbs. This means they are cool to the touch, help reduce home cooling costs, and can keep your home more comfortable.

HOME ENERGY ANALYSIS REPORT

Audit Date: 7/20/2016



Health & Safety

General Information



No Improvements
Recommended

In addition to energy savings, your home was checked for any underlying health and safety issues such as proper ventilation, carbon monoxide levels, and proper venting of any combustion appliances. To assess your home, a series of measurements were performed including a blower door test to depressurize the house and assess air leakage levels in addition to safety tests on HVAC equipment, including carbon monoxide levels and combustion appliance back-draft testing (not applicable on an all- electric home). The results of these tests are presented here along with any recommended actions for improving your home where it fails to meet national standards for a healthy and safe home.

Est. Install Cost

-

Observations & Tests

Category	Condition
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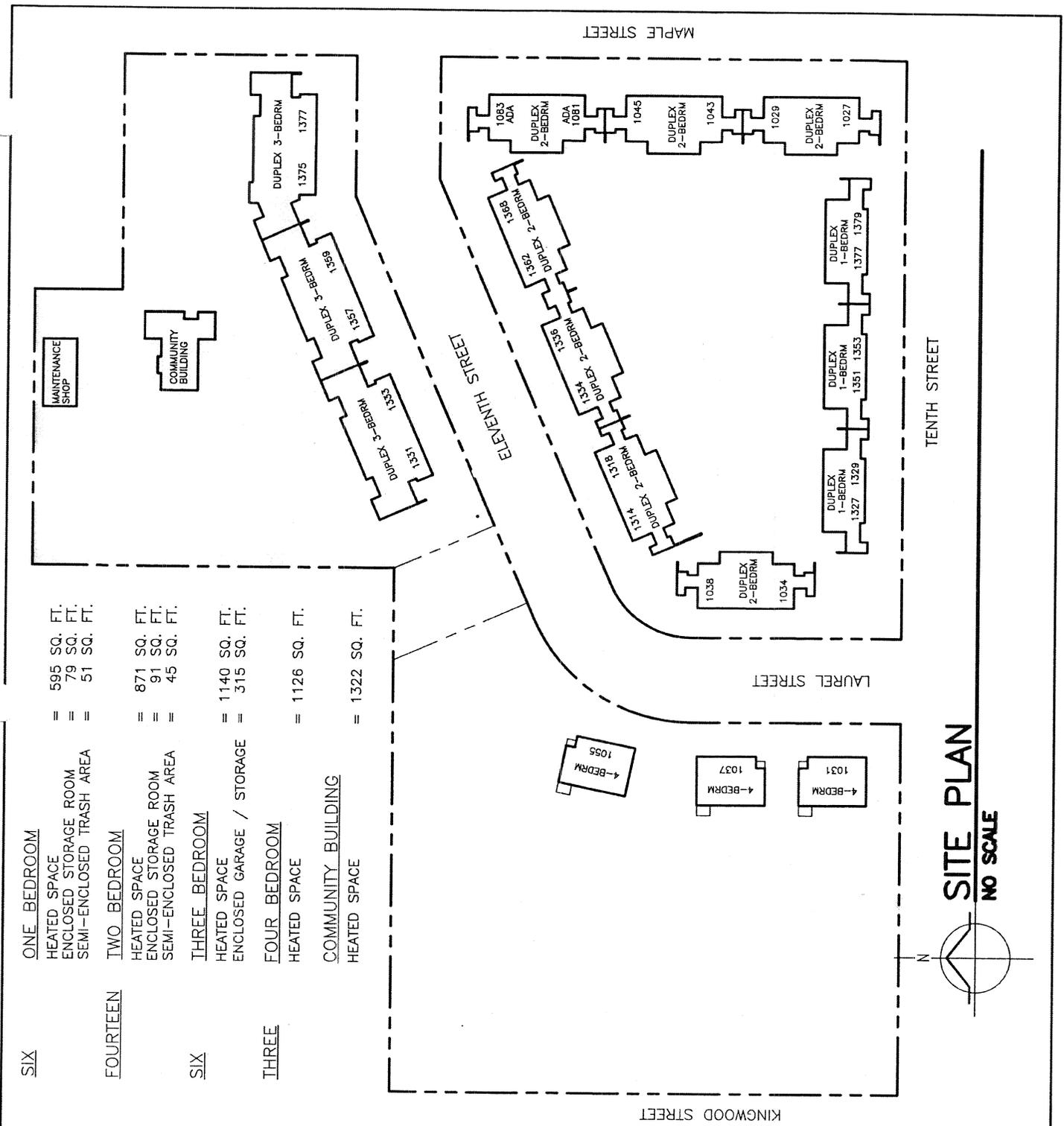
Measurement Location	Measurement Type	Value
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1027

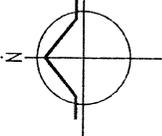
Laurelwood Homes





<u>SIX</u>	<u>ONE BEDROOM</u>	=	595 SQ. FT.
	HEATED SPACE	=	79 SQ. FT.
	ENCLOSED STORAGE ROOM	=	51 SQ. FT.
	SEMI-ENCLOSED TRASH AREA		
<u>FOURTEEN</u>	<u>TWO BEDROOM</u>	=	871 SQ. FT.
	HEATED SPACE	=	91 SQ. FT.
	ENCLOSED STORAGE ROOM	=	45 SQ. FT.
	SEMI-ENCLOSED TRASH AREA		
<u>SIX</u>	<u>THREE BEDROOM</u>	=	1140 SQ. FT.
	HEATED SPACE	=	315 SQ. FT.
	ENCLOSED GARAGE / STORAGE		
<u>THREE</u>	<u>FOUR BEDROOM</u>	=	1126 SQ. FT.
	HEATED SPACE	=	1322 SQ. FT.
	<u>COMMUNITY BUILDING</u>		
	HEATED SPACE		

SITE PLAN
NO SCALE



LAURELWOOD HOMES

FLORENCE, OREGON



HACSA

Housing And Community Services Agency of Lane County

300 WEST FAIRVIEW DRIVE, SPRINGFIELD, OREGON
 PHONE: (541) 682-4090
 FAX: (541) 682-3875
 TTY: (541) 682-2565

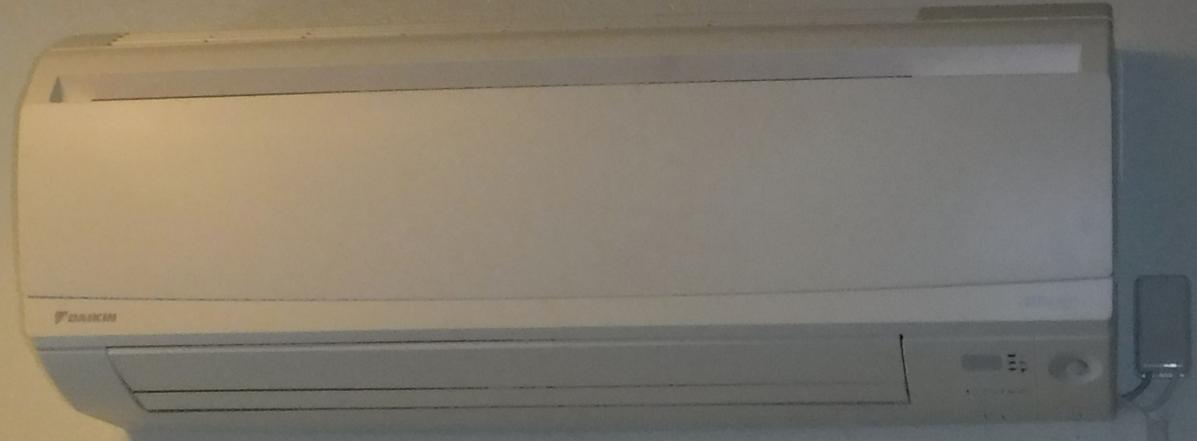
177 DAY ISLAND ROAD, EUGENE, OREGON
 PHONE: (541) 682-3755
 FAX: (541) 682-3411
 TTY: (541) 682-3412

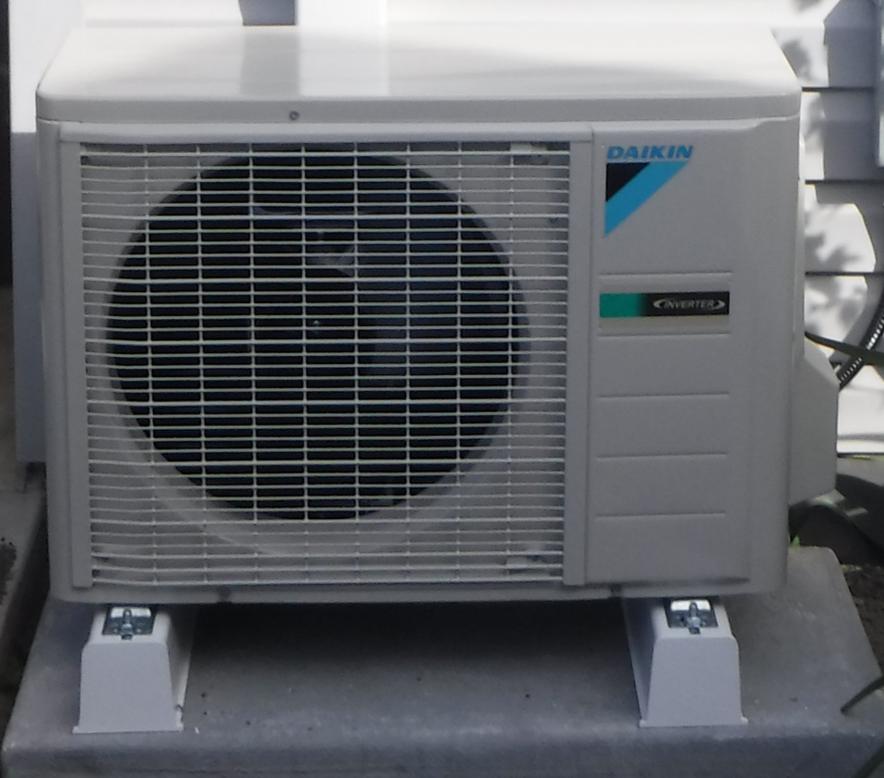
SQ. FOOTAGES

PROJECT AMP 100
 DATE JAN 2014
 DRAWN WJH

OR 6-01
 SHEET

SITE





September 2016

September 2016							October 2016						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
4	5	6	7	8	9	10	2	3	4	5	6	7	8
11	12	13	14	15	16	17	9	10	11	12	13	14	15
18	19	20	21	22	23	24	16	17	18	19	20	21	22
25	26	27	28	29	30		23	24	25	26	27	28	29

Aug 28 - Sep 3		Sep 4 - 10		Sep 11 - 17		Sep 18 - 24		Sep 25 - Oct 1					
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug 28	29	30	31	Sep 1	2	3							
4	5	6	7	8	9	10							
			2:00pm 2:30pm Meeting - Dustin HCH	Week 1 Notices posted 5:00pm Pizza Party									
11	12	13	14	15	16	17							
	1031, 1037, Laurel Tentive Start Date	1031, 1037, Laurel 1055 Laurel, 1331 11th	1031, 1037, Laurel 1055 Laurel, 1331 11th 1333, 1357 11th Inspections	1055 Laurel, 1331 11th 1333, 1357 11th Week 2 Notices Posted	1333, 1357 11th 1359, 1375 11th 1377 11th, 1083 Maple Inspections								
18	19	20	21	22	23	24							
	1081, 1045 Maple 1359, 1375 11th 1377 11th, 1083 Maple	1043, 1029 maple 1081, 1045 Maple 1377 11th, 1083 Maple	1027 Maple, 1379 10th 1043, 1029 Maple 1081, 1045 Maple Inspections	1027 Maple, 1379 10th 1043, 1029 Maple 1377, 1353 10th Week 3 notices Posted	1027 Maple, 1379 10th 1351, 1329 10th 1377, 1353 10th Inspections								
25	26	27	28	29	30	Oct 1							
	1327 10th, 1034 Laurel 1351, 1329 10th 1377, 1353 10th	1083 Laurel, 1314 11th 1327 10th, 1034 Laurel 1377, 1353 10th	1038 Laurel, 1314 11th 1318, 1334, 1336, 1362 1327 10th, 1034 Laurel Inspections	1038 Laurel, 1314 11th 1318, 1334, 1336, 11th 1362, 1368, 11th	1318, 1334, 1336, 11th 1362, 1368, 11th Final city Inspections								

October 2016

October 2016							November 2016						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
2	3	4	5	6	7	8	1	2	3	4	5	6	7
9	10	11	12	13	14	15	8	9	10	11	12	13	14
16	17	18	19	20	21	22	15	16	17	18	19	20	21
23	24	25	26	27	28	29	22	23	24	25	26	27	28
30	31						29	30					

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sep 25	26	27	28	29	30	Oct 1
2	3	4	5	6	7	8
			Final CLPUD Inspector	Thermostat training Unit Maintenance Trail		
9	10	11	12	13	14	15
16	17	18	19	20	21	22
	60 Day Per. End for HC					
23	24	25	26	27	28	29
30	31	Nov 1	2	3	4	5
10/30 - 11/4	10/23 - 28	10/16 - 21	10/9 - 14	10/2 - 7	9/25 - 30	

Dave Akins

48 Hour notice

Laurelwood homes Ductless heat pumps and Bath Fans

Tentative Schedule

Monday 10/12/16	Tuesday 10/13/16	Wednesday 10/14/16	Thursday 10/15/16	Friday 10/16/16
Contractors In units 1031 and 1037 Laurel St.	Contractors In units 1031 and 1037 Laurel St. Contractors In units 1055 laurel and 1331 11 th .	Contractors In units 1031 and 1037 Laurel St. Contractors In units 1055 laurel and 1331 11 th . Contractors In units 1333 and 1357 11 th .	Contractors In units 1055 laurel and 1331 11 th . Contractors In units 1333 and 1357 11 th . Contractors In units 1359 and 1375 11 th .	Contractors In units 1333 and 1357 11 th . Contractors In units 1359 and 1375 11 th Contractors In units 1377 11 th and 1083 Maple

- **Tenants** - We are booking our Contractors for three days per unit but likely will take less Time. So the schedule will be subject to change. I will keep you posted with any updates to the schedule.
- **Storage Areas** – Please have storage areas cleared so contractor has attic access.
- **Bathrooms** - Please have bathrooms clear of clothes and clutter
- **DHP Units and Breaker box** - Please have areas where the inside head and outdoor unit clear of furniture or belongings. Also the electrician will need access to the breaker box.

Posted _____

Time _____

DHP multifamily project checklist:

- Set up informational food based meeting with tenants prior to any activities
- Give timely notices to tenants when their units will be entered
- Require all contractors to look at all unit types at the pre-bid walkthrough
- Set reasonable project time line and require awarded contractor to provide a tight schedule before the job starts
- Set informational food based meeting with tenants to go over what is to be expected and share the project schedule.
- During the project, have an owner representative on site to open unit and deal with tenant issues.
- Use wall mount thermostats
- Schedule building inspectors while tenant notices are still valid
- Immediately upon completion of project, follow up with training for tenants and maintenance staff



04/27/2015 23:32









**Low Income Workgroup
October 6, 2016**

At BPA Headquarters and by phone

Summary

The meeting was held next door to BPA Headquarters in the 911 Building. BPA provided an update on what is “multifamily” and what is “single family” as well as the number of units in a multiunit complex needed to qualify for low income measures. Mpower provided a presentation on how to successfully engage building owners. And we had an in depth discussion about DHPs including the installation costs and what might qualify as a repair cost. This topic still needs more attention. BPA put out a request to gather data on the installation costs. Please send this to Jess Kincaid. Steve Joel shared some slide shows from case studies of DHPs and duct sealing as well as a checklist for DHP projects in multiunit complexes. Travis Hardy shared his experience analyzing the DHP bids of contractors serving his utility territory and how he landed on a generic pricing structure. We ended the meeting with the intention of putting together a section to be added to the Quick Start Guide on tips for implementing multifamily projects successfully. Check out the post on Conduitnw.org and add your feedback. The next meeting will be in Seattle, January 31 from 10 a.m. to 1 p.m. at the SMART Buildings Center. Stay tuned for more information about the meeting.

Attendees

On the Phone:

Jim Maunder, Ravalli Electric
Sheri Shepherd, State of Montana
Bobbi Wilhelm, Idaho Falls
Casey Mitchell, Community Action Columbia
Tacoma
DeeAnn Starr, Springfield Utility Board
Linda Esparza, Franklin PUD
Anita Clever, Klickitat PUD
Lars Henrickson, Seattle City Light
Jim Dolan, Pacific PUD
Ed Monson, Benton PUD
Eric Miller, Benton REA
Ken Hanna, Neighbor Impact
Duffell Gray, Coos Curry Electric
Alma Velasco, Franklin PUD
Jonathan Ballew, Montana

In person:

Summer Goodwin, BPA
Jess Kincaid, BPA

Carrie Nelson, BPA
Ken Tobias, Alpha Builders
Fran Howell, Alpha Builders
Shawn Collins, The Energy Project
Kevin Watier, SnoPUD
Charlie Shifferdecker, EWEB
Kathy Grey, EWEB
Wid Ritchie, Idaho Falls
Steve Joel, HACSA
Cyrus Collins, Columbia River PUD
Travis Hardy, Northern Wasco PUD
Brandy Neff, PNGC Power
Paul Rich, ESG
Jeremy Stewart, Tacoma Power
Todd Blackman, Franklin PUD
Rogelio Cortes, MWVCAA
Faith Graham, MPower
Julie Hayes, Milepost Consulting
Dena Hilde, BPA
Wendy Gerlitz, NVEC
Debbie Swanson, ESG
Hans Berg, WA Dept. of Commerce
Amanda Rains, WA Dept. of Commerce

Roundtable:

- Wendy Gerlitz shared that community solar in Oregon will have a 10% carve out for low income customers.
- Shawn Collins shared that Blane Electric has started performing low-income weatherization in their territory as part of a contract with the CAP.
- Jim Maunder said that Ravalli has installed their first DHP in a low income home last month.
- Johnathan– Said that they are starting talks with Montana State DEQ to address low income portions of clean energy blueprint.
- Todd Blackman shared that he is working with CAP and SEED (?) agency to prepare paperwork.
- Steve Jole provided a summary of his 2016 heat crisis furnace replacement program using EEI from utilities. He reported 21 additional jobs thanks to utility funds. They were able to fund the program from 11 months instead of just three this year.

Update from BPA on the Multifamily Low Income Requirement, Jess Kincaid, BPA

Jess presented on multifamily weatherization qualification, specifically the definitions of multifamily vs. single family for the utility program. Five or more dwelling units within the same structure are considered “multifamily” One through four dwelling units within the same structure are considered “single family”. Thermally separated multiplexes can also be considered single family. Regarding income qualification: At least 50% of households in two, three, and four unit dwellings must income qualify... in order for the weatherization of the entire building to qualify for low-income Payments. Utilities, however, may set more stringent requirements at their discretion.

- There was discussion on specifications and regulations and Jess reiterated that BPA is a floor (minimum) and utilities can do anything above that minimum (raise that requirement, if they choose to).

Case Study: Multifamily Duct Sealing - Steve Jole, HACSA

Steve Jole provided a slide show of a multifamily duct sealing project that HACSA executed.

Multifamily Opportunity and Motivators for Owners to Take Action - Faith Graham, MPower

Faith provided background on MPower and its full service solution for efficiency upgrades. MPower found the obstacles to weatherization of multifamily rental properties were lack of capital, lack of confidence in modeling energy savings, split incentives and needing a “cheerleader” for the project. They now follow a full project management approach including client education to tenants and monitoring of actual energy savings. They’ve completed 2,320 units with a 32% average energy savings.

- The keys to MPower’s success include capacity, confidentiality, and capital including how to fund low-income tax credit projects
- The “secret sauce” is being there for the coordination of all of the parts of the EE project: scope, specifications, development and resident engagement.
- They help figure out what all of the incentives are.
- MPower works in Oregon only pairing affordable multifamily housing with EE projects. We discussed overcoming split incentive and other barriers-lack of money, doubt. In her experience you really need a trusted champion and advisor for the recipients and landlords who

communicate well with owner. Coupling EE with water conservation has also been a big selling point. Most are not motivated by EE alone.

- After the project they go back and show the benefits and achievements. It is a 10 year relationship.
- They also offer a loan product.
- 32% energy savings on average. Building owners usually motivated by project features such as fans, ventilation, safety (lighting).
- Housing finance agencies have been a good resource for finding lists of potential buildings.
- Half of projects were in the Portland metro area, most were 2-3 story.
- If utility costs drop because of work done, the landlord can collect the difference.

Check-in on Ductless Heat Pumps

- **What are the actual installation costs? – Jess Kincaid, BPA**
 - The cost of DHPs has been a point of discussion in the workgroup. There was a call for cost data, and clarification on what should be included. Jess said to send as many details as possible. Some things were mentioned such as prevailing wage, open market price comparison, what is a repair cost vs installation cost.
 - There are some costs that are outside of the normal requirements but come up again and again and there is interest in having some guidance.
 - Some electrical panels need to be upgraded. Some installations require a new outlet or installers will position DHP near an outlet to avoid have to put in a new outlet. These might be the biggest problem to decide if they are repair or installation costs.
 - A state funded DHP would require installer to be paid prevailing wage but an open market installation would not.
 - Steve Jole-pointed out that some installers are replacing the existing heat so it is only DHP (no supplementary heat)
 - Can you use the baseboard circuit for the DHP and then decommission the baseboard?
 - BPA is interested in knowing what the average installed measures cost in your area is including multi-head system, single head system, repair cost, standard income installation and low income installation. Please send that information to jbkincaid@bpa.gov .
- **US DOE funds for DHPs in Multifamily – Steve Jole, HACSA**
 - Steve Jole shared a multifamily DHP project and how they are often cost effective in multifamily housing. Central Lincoln was not multifamily because each building is a duplex.
 - Riverview terrace in Cottage Grove and Laurelwood Terrace have been completed. They found a way to reduce costs by contracting for a whole project at once.
 - Required a walkthrough for all of the bidders.
 - They used Daiken DHP
 - They did not purchase the extended warranties but they haven't yet figured out the multifamily service contract.
 - HACSA developed a checklist for this DHP project that could be used for any multifamily or rental project:

- Set up informational food based meeting with tenants prior to any activities
 - Give timely notices to tenants when their units will be entered
 - Require all contractors to look at all unit types at the pre-bid walkthrough
 - Set reasonable project time line and require awarded contractor to provide a tight schedule before the job starts
 - Set informational food based meeting with tenants to go over what is to be expected and share the project schedule.
 - During the project, have an owner representative on site to open unit and deal with tenant issues.
 - Use wall mount thermostats rather than unfixed remotes that can easily be lost.
 - Schedule building inspectors while tenant notices are still valid
 - Immediately upon completion of project, follow up with training for tenants and maintenance staff
- **Ideas for Cost Containment – Travis Hardy, Northern Wasco PUD**
 - Travis found that other utilities and CAPs are paying less for DHPs. Wanted to reduce time and paperwork as well as cost. Discussed the variation in bids that he was getting-labor cost could be 250, 1600, or 1195 from 3 different bidders. Reviewed and compared each invoice. Discussed ways and his plan to bring down costs and landed on generic pricing.

Discussion How to Serve Renters

The group discussed that multifamily is commonly understood as any multiunit property but that there are specific requirements for “Multifamily” measures in the utility program. The checklist that Steve created can be applied to any multi-unit or multifamily project—even any rental project. Providing that coordination role is key, as Faith mentioned. We will work on developing these tips more to create a rental or multiunit/multifamily section of the LIEE Quick Start Guide. [This was put into an article on Conduitnw.org. Anyone in the workgroup is welcome to provide comments or additions to it. We would like to get at least one page on this into the Quick Start Guide n 2017.]

Wrap Up

BPA will discuss how best to provide guidance on installation and repair costs and get back to the group. The next meeting is set for January 31 from 10-1 in Seattle.