

2019 End-Year Report

Date Submitted:	December 17, 2019
Sub-Recipient Name:	Community Energy Project
Program Title:	DIY Cooling Workshop
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I. Progress towards outputs and outcomes

OUTPUTS	July	August	September	Contract to Date	Year Goal
FY 2019-20	85	17	38	140	140

1. PROGRAM SUMMARY

The Do-It-Yourself Cooling Workshop is a program Community Energy Project pioneered in 2019. The workshop was delivered to a target audience of low-income Oregonians, primarily in Multnomah County. This hands-on workshop covers low-cost techniques to stay cool and safe in the heat of summer without air conditioning, as well as water conservation, energy conservation, and staying safe during extreme heat. Each participant received a free kit of weatherization supplies to install in their home. The goal of this workshop was to target and serve low-income renters in the Portland area.

The development of the workshop in addition to the delivery and materials for 140 households was funded by Energy Trust of Oregon. Thanks to the funding for development, we were able to serve an additional 28 participants with materials funded by Portland Housing Bureau. In total, 168 households were served over the course of this contract.

2. ACCOMPLISHMENTS

This accomplishments and challenges sections cover the entire DIY Cooling Workshop from all funding sources, as this contract funded development for the entire pilot of this program.

Interest/Need in Community

Community Energy Project held 13 DIY Cooling Workshops throughout Multnomah County. From these workshops, 8 were exclusively Energy Trust funded workshops. We saw as many as 25 households to as few as 1 household in attendance at these workshops, with an average attendance of 12 households. Due to high attendance and success in July, 50 households were added to the Energy Trust contract at the beginning of August. All of the added households were served within 30 days of the addition.

Community Accessibility

Thanks to our partnership with Harsch Properties, Home Forward, and REACH, we were connected to residents from 24 multi-family housing buildings. These partners provided us with outreach, onsite space to hold the workshop, food, and interpretation, as needed. Interpretation was provided for 4 workshops (23%) in at least one language other than English, including Spanish, Nepali, Arabic, and Somali. 5 additional workshops (39%) were held for the general public using Portland Housing Bureau funds and Energy Trust funded materials.

3. CHALLENGES

Workshop Logistics

Two box fans significantly limited the number of kits that could be brought to each workshop as most standard cars can safely fit no more than 30 fans. Since survey results showed that nearly all of the participants used both box fans, changes may need to be made in transportation planning. Options may include increasing the mileage budget to account for multiple trips to deliver materials for each workshop or budgeting for large vehicle rentals.

Critical Feedback

The most common critical feedback was participants requesting the models of the floor plans used in the slide deck match their own, as this was within the examples of passive cooling with the box fans. While it is unrealistic to address every possible floor plan, even in specific apartment buildings, there is still room for improvement in the airflow examples in the workshop. We will be adjusting the floor plan models to closer resemble common apartment setups for future workshops.

Many participants also expressed frustration with the workshop focusing on their behavioral changes and not including changes that could happen within the building's structure or maintenance. It might be worthwhile to include a conversation with building staff or connect with programs for landlords prior to giving workshops in multi-family housing.

4. PARTICIPANT DEMOGRAPHICS

The trends below reflect the demographics from all participants of the 2019 DIY Cooling workshops, including the additional 28 households served through PHB.

Demographic Highlights

- 61% of homes served do not have AC (compared to 30% of Portland homes)
- 65% of participants identify as female
- 49% of participants identify as people of color
- 54% of participants have an extremely low income (0-30% MFI)

Category		YTD	%
Race*	African	13	8%
	Asian	17	10%
	Black/African American	50	30%
	Latino/Hispanic	79	47%
	Middle Eastern	1	1%
	Nativ American/Alaska Native	12	7%
	Native Hawaiian/Pacific Islander	2	1%
	Slavic	2	1%
	White	87	52%
	Prefer Not to Respond	13	8%
	Total Minorities	176	105%
Gender	Male	42	25%
	Female	109	65%
	Other	2	1%
	Prefer Not to Respond	15	9%
Rent/Own	Rent	146	87%
	Own	8	5%
	Prefer Not to Respond	14	8%
Disability	Yes	33	20%
	No	106	63%
	Prefer Not to Respond	29	17%
Veteran	Yes	14	8%
	No	138	82%
	Prefer Not to Respond	16	10%

% MFI	0-30%	66	39%
	30-50%	47	28%
	50-80%	5	3%
	>80%	3	2%
	Prefer Not to Respond	47	28%
City	Portland	164	98%
	Fairview	1	0.6%
	Gresham	2	1.2%
	Hillsboro	1	0.6%

*Participants may select more than one race, so totals will not equal 100%.

5. SURVEY RESULTS

Highlighted Comments

"The presenter was knowledgeable and clear about the information presented. I especially enjoyed learning about causes for humidity in the apartment and how airflow affects the temperature in the apartment."

"The information about how to keep your apartment cool was very useful. Using the shades to keep out the sun. Closing the windows to keep out hot air. And then using fans to circulate air into and around the apartment was all very useful."

"We live in apartments and most situations are out of our control, so it's good that we get some of those sealants."

"Teach Home Forward staff in all properties according to this class. All lights create heat some more than others."

"Would have been better to have a room configuration example that matches our apartment. Easier to picture + understand how air blow works where "we" live."

Post-Workshop Survey

Community Energy Project conducts a short written survey to gather information from participants immediately following the workshop. This ensures program quality, participant satisfaction, and program impact. These results reflect responses from 55% of all participants across all of our funding sources.

Question	Response	%
I thought the presentation was:	Clear and easy to understand	88%
	A little confusing	6%
	Difficult to follow	0%
I think the workshop covered:	Too much information	13%
	The right amount of information	77%
	Not enough information	3%
I found this workshop to be:	Extremely useful	65%
	Somewhat useful	32%
	Not useful	0%
Why did you attend this workshop? (choose all that apply)	Save money on energy bills	57%
	Free materials	48%
	Conserve energy resources	38%
	Stay cooler	59%
	Other	2%
What will you do with the weatherization materials?	Use them at home	89%
	Can't use them at home	1%
	Won't use them at home	2%
	Share with friends/family	9%
	Chose not to take a free kit	0%
	Did not qualify for a free kit	0%

Presenter was enthusiastic:	Strongly Disagree	0%
	Disagree	0%
	Neutral	5%
	Agree	20%
	Strongly Agree	66%
Presenter was easy to understand:	Strongly Disagree	1%
	Disagree	1%
	Neutral	3%
	Agree	23%
	Strongly Agree	23%
Presenter was knowledgeable:	Strongly Disagree	0%
	Disagree	0%
	Neutral	5%
	Agree	18%
	Strongly Agree	66%
Presenter was approachable:	Strongly Disagree	0%
	Disagree	0%
	Neutral	5%
	Agree	16%
	Strongly Agree	67%

Results of End of Year Survey

Each year Community Energy Project conducts a survey to gather information from approximately 10% of workshop participants across all funding sources about the results of taking part in a workshop. These surveys are conducted both by sending the form via email as well as staff calling participants on the phone. For each phone call, staff other than the educator who provided the workshop conducted the survey to limit bias in the evaluation. This ensures program and supply relevancy, participant satisfaction, and high program impact.

Question	Response	%	Additional Comments
Was it worth your time to attend the workshop?	Yes	100%	Free box fans was the icing on the cake, in addition to learning ways to create flowing to bring about cooling of rooms.
	No	0%	Valuable information about cooling explained simply.
Where you able to stay cooler in your home without using Air Conditioning (AC) after this workshop?	Yes	100%	Didn't even have to use my AC after the workshop!
	No	0%	I was able to start sleeping in my bedroom again; my bedroom was super hot and we couldn't stay in it; we were blowing air into the room, and was just recirculating the hot air in the room vs getting cooler air into the room.
	I don't know	0%	
On average, how much cooler were you able to keep your home as compared to outside temperatures?	I was not able to keep my home cooler than outside.	14%	I learned about keeping the apartment cooler with fans and controlled opening and closing of windows. It stayed much cooler throughout the day.
	1-5° F	0%	
	6-10° F	43%	
	11-20° F	14%	
	I do not know how much.	14%	
How much money did you save on your monthly electricity bills after using the cooling tips, workshop materials, and	\$1-10	7%	A reduction in my bill was immediately seen. This was much encouragement.
	\$11-21	21%	
	\$21-30	0%	

following the energy saving tips?	\$31+	7%	I paid around \$30/month instead of over \$40/month without the cooling efforts.
	I don't know how much.	50%	
Did you do anything to reduce humidity in your home?	Yes	43%	
	No	36%	
Did you do anything to reduce waste heat (from electronics, appliances, etc.) in your home?	Yes	71%	
	No	21%	
Please indicate all cooling measures you have used on your windows	Installed window film to block sunlight (UV film, reflective film, etc.)	7%	
	Kept blinds or curtains closed to block sunlight	93%	
	Installed curtains/blinds/window coverings to block sunlight	14%	
	Insulated windows to block heat (sheets, blankets, window kits, etc.)	21%	
Have you or your family changed behaviors at home since attending the workshop?	Yes	57%	I am much more aware of water use, window protection from the sun and air circulation.
	No	36%	
Which is more difficult, staying cool at home in summer or staying warm at home in winter?	Staying cool in the summer	43%	I don't get much direct sunlight so staying cool isn't that difficult. Heating the apartment using the small electric wall heaters is just expensive. I try not to turn them on until I have to. Home Forward has provided us with programmable thermostats.
	Staying warm in the winter	36%	

	Both are equally difficult	7%	Our apartment is fairly well insulated, so in the winter as long as we cook the heat stays in and the temperature is nice, but it's hard to cool down in the summer. Very grateful to have learned so much and gained more control over the temperature inside
	Neither is difficult	14%	
Did you have a problems using any of the materials?	Yes	7%	All super easy to use!
	No	79%	Easy to position and operate fans. Bucket was handy while running water and recycling.
	I did not install the materials	7%	
Below is a list of materials you received in the kit. Please mark all materials that you used in your home.	Both box fans	79%	
	One of the box fans	29%	
	Rope caulk	43%	
	Foam tape	50%	
	V-seal	21%	
	Outlet/switch gaskets	43%	
	Both thermometers	57%	
	One thermometer	21%	
	Toilet leak detection kit	57%	
Workshop manual	50%		
What did you do with the materials you didn't use?	Gave to friend, neighbor, family member, etc.	29%	

	Donated to another organization	7%	
	Took to work	0%	
	Saved/still have them	43%	
	Returned to CEP	0%	
	Used them all	0%	
Did anyone help you install the materials?	Yes	7%	
	No	93%	
How many total hours did you (and/or others) spend installing the materials?	0-4	86%	
	5-10	7%	
	11+	0%	
Did you use your bucket for water conservation?	Yes	36%	Bucket in the shower to use for flushing the toilet
	No	64%	In bath tub, kitchen sink til water run warm.
	I did not use my bucket at all	21%	Catch shower water to reuse for plant watering.
Did you order an energy saver kit from Energy Trust of Oregon?	Yes	43%	
	No	57%	
Was the workshop missing information that you wanted to learn about?	Yes	21%	There was a lot more than I was expecting to receive! There was a translator and that made me really happy for my community.
	No	79%	Cooling spots in town, local pools voucher for free/reduced cost, free park events with free snacks
	I don't know	0%	Using fans in an apartment without cross ventilation

On a scale of 1-5, how much would you say you knew about energy and cooling without AC BEFORE the workshop?	1	7%	
	2	21%	
	3	36%	
	4	21%	
	5	14%	
On a scale of 1-5, how much would you say you knew about energy and cooling without AC AFTER the workshop?	1	0%	
	2	0%	
	3	0%	
	4	50%	
	5	50%	
On a scale of 1-5, how much would you say you knew about water conservation BEFORE the workshop?	1	0%	
	2	21%	
	3	43%	
	4	14%	
	5	14%	
On a scale of 1-5, how much would you say you knew about water conservation AFTER the workshop?	1	0%	
	2	0%	
	3	7%	
	4	43%	
	5	50%	
Do you feel more prepared to recognize heat related illness?	Yes	79%	
	No	14%	
Did the workshop make you more likely to do other DIY projects at home?	Yes	79%	The combination of a presentation plus kit is wonderful and enabling.
	No	14%	
Was this your first Community	Yes	79%	

Energy Project workshop?	No	21%	
Would you like to know more about our other workshops?	Yes	79%	
	No	14%	
Would you or have you recommended Community Energy Project workshops to family or friends?	Yes	93%	
	No	7%	