

# DIY Home Weatherization

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Social Engagement and Reducing Energy Poverty

FACT: In Summit County, 25% of income is spent on energy bills for households below 50% of poverty level. Estimated annual energy cost is almost \$2000\*

We can significantly reduce this with outreach and assistance to underserved populations.

\* <https://www.theatlantic.com/business/archive/2016/06/energy-poverty-low-income-households/486197/>

# Energy Equity

Owners and residents of multifamily rental housing are underserved when it comes to access to the benefits of energy efficiency compared to owners and residents of other forms of housing. Affordable multifamily rental housing tends to have far fewer energy efficient attributes.\*

Our aim is to engage with underserved populations and empower them with tools and knowledge to increase the comfort level of their homes and reduce their monthly utility bills; all while making progress on our community-wide energy goals.

\* Gary Pivo, *Unequal access to energy efficiency in US multifamily rental housing: opportunities to improve* (Building Research and Information, 2014), 42:5, pp. 551-573.

# The Program in a Nutshell:

Step 1: Outreach with diverse people and groups

Step 2: Check out DIY Energy Detection kits from library

Step 3: Energy conservation workshops and free conservation kits for DIY [weatherization](#). Assistance with fixes from SCPW volunteers.

Step 4: Summit Community Power Challenge. Form teams, track savings and WIN!

**Result: Healthier, more comfortable homes and significant \$\$ savings**



# Step 1: Outreach and Raising Awareness Activities

Engage together with other local, trusted community partners that already have ties to target population to raise awareness

- a. Holy Cross Ministries
- b. Christian Center
- c. Latinos in Action
- d. Schools
- e. KPCW slots: Cada Domingos, This Green Earth, Local News Hour
- f. The Park Record
- g. Work with SCPW (a non-governmental, community organization) to craft and deliver energy equity outreach activities
- h. Utilize social media assets of all

The point is to meet people in-person, where they are at

Make “how-to” videos (bilingual)



## Key questions, messages and goals for outreach:

What do people want or need? (double check that our program is useful)

We want to make it easy for you! We are here to help.

You can increase the comfort level of your home AND save money and energy with conservation kits.

Engage people to check out library detection kits and attend conservation workshops.

## And then...

# Step 2: Library Detection Kits

“Energy Audit” detection kits (10) available to check out from the Park City Library

With the kits, anyone can assess their homes “hidden” thermal and water leaks, as well as [phantom electricity consumption](#).

Kits to include:

- [Flir thermal camera](#), for use with Smartphones, uses infrared to identify thermal leaks, i.e. where insulation will help -or- Infrared camera for those who don't have Smartphones (different kits have different versions)
- [Color tablets](#) to drop in toilet tank to check for leaks
- [Kill-A-Watt meters](#) show how much electricity your appliances use
- [Refrigerator/freezer thermometer](#)
- Guidebook on how to use equipment (bilingual)
- Checklist of what to fix (bilingual)



# Make the invisible visible with library kits



Check for Thermal Leaks, Toilet Leaks,  
Phantom Electricity Use

And then...



# Step 3: How-to Workshops, Conservation Kits and Assistance

Attend a workshop to learn how to make easy conservation fixes at home and receive a free box of tools to do so.

In a rush? Volunteers will come to you and make the fixes for you (free, donations accepted).

Conservation kits include:

- [1 window shrink & seal insulation kit](#)
- [1 High density foam weatherstripping tape](#)
- [1 30' rope caulk](#)
- [Child safety caps](#)
- [1 LED night light](#)
- [Foam switch gaskets](#)
- [Foam outlet gaskets](#)
- [Refrigerator temperature card](#)
- [1 chrome 1.5 gpm showerhead](#)
- [1 gpm faucet aerator](#)
- [1 toilet tank bank](#)



Free and Easy fixes with Conservation Kits

Workshop on understanding your utility bills and DIY weatherization, energy saving, and water conservation

Available assistance from SCPW

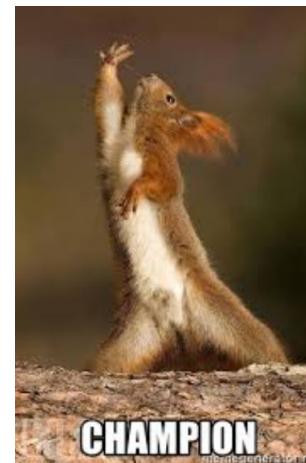
And then...

## Step 4: Track Savings and Compete

PCMC Environmental team & SCPW to co-launch a “green challenge” website which helps people commit to actions, and automatically calculates real energy, water and financial savings

Groups can compete to save the most energy and win additional prizes

Example: [Fremont Green Challenge](#)



# Website: Summit Community Power Challenge

Localized  
blog

Climate 101

Focus on  
practical  
solutions

70 Actions

Ranging from  
Easy to  
challenging

Challenge

Tallies community savings to  
show that collective action  
makes a large community  
impact

Automatically calculates  
challenge pts, CO2 and energy  
savings, \$\$ savings, and cost  
to implement

Local resources to help  
achieve actions, e.g. local  
rebates and service provider  
and assistance info

Leaderboard highlights local  
success stories and recognizes  
teams that save the most  
energy (prizes from local  
businesses)



## We Have Solutions

The good news – we have the technology and solutions today to address climate change and create a safe and healthy future. And they are affordable.

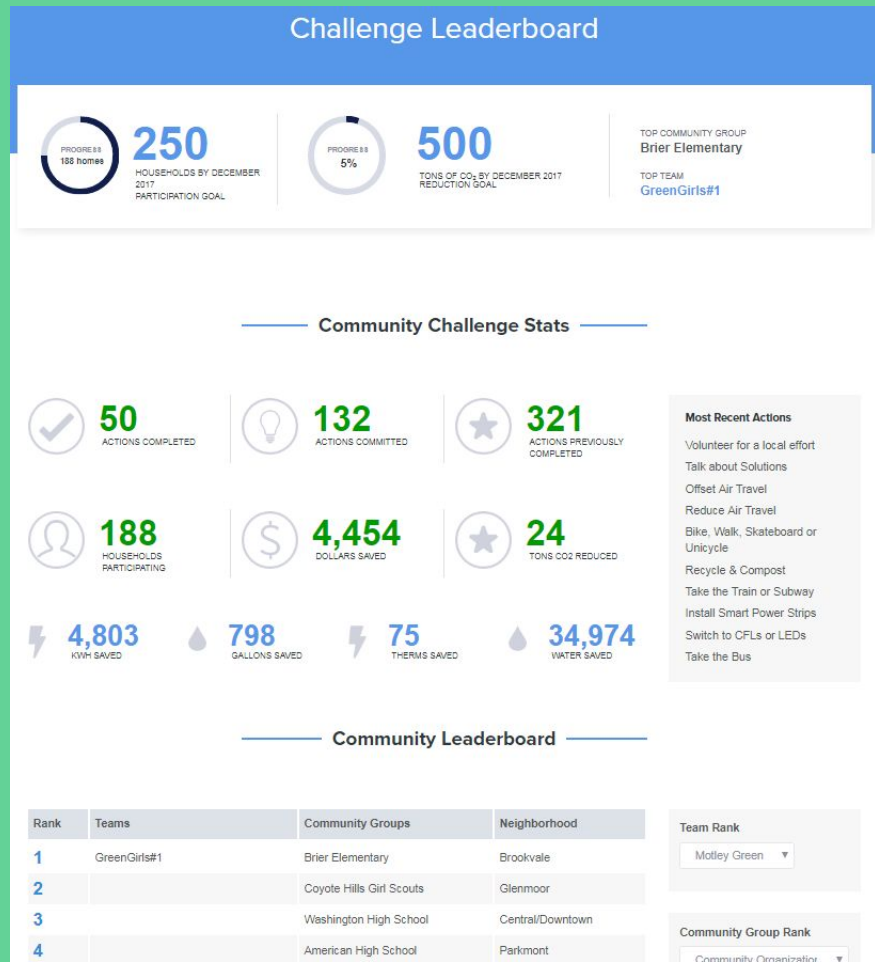
The primary cause of climate change is burning fossil fuels for energy – coal, oil and natural gas. To address climate change we need to transition to new, clean renewable energy sources. Renewable energy technology is not only available, prices have dropped so much in the last few years that it is now equal to or cheaper than fossil fuels in many parts of the U.S. By 2020 renewable energy technology will be cheaper in most if not all of the U.S.

The better news – this transition does not need to turn our lives upside down! This does not require walking everywhere and only eating grains. We can maintain a good quality of life in this transition. Better yet, transitioning away from fossil fuels to renewable energy will also improve our health, save money and create jobs. Learn more about these benefits and the how we can transition from fossil fuels below.



The Solutions Pathway – Three Simple Steps

Website establishes identity for Park City's community-wide energy saving activities and rewards leaders for sustained energy savings and climate actions



# The team:

Lovely leading ladies

Women are in charge



# How does this further the values of social equity?

1. **Affordability**- direct savings from reduced utility bills
2. **Connection**- focus on face-to-face encounters to build trust
3. **Enhance communication**- extensive outreach; we come to you (not you come to us) and work with existing community organizations
4. **Issue awareness**- combines social equity AND energy goals
5. **Reflect community diversity**- all outreach materials in English AND Spanish; women are in charge

# Supplemental info

## - Kits



# Activity flow

1. Check out detection kits from the library
2. Use thermal cameras to check for insulation leaks, toilet tablets to check for toilet leaks, and kill-a-watts to understand plug loads
3. Write down results and action items on worksheet, save thermal images on phone
4. Return detection kit to library
5. Sign up for workshop and free conservation kits
6. Attend workshop and receive free conservation kit with instructions and sign up for SCPC challenge -or- sign up for SCPW to come and install kits
7. Compete for energy savings and win prizes from SCPW

Supplemental info  
- Outreach plan

## Background:

Park City has the community-wide Energy goal to be net-zero carbon and running on 100% renewable electricity by 2032.

Deep energy efficiency retrofits are necessary to achieve this goal.

Low income households spend a higher % on energy, but have lower access to efficiency improvements

## Goal:

Engage diverse population

Save energy

Improve comfort energy efficiency of low income households in Park City

Raise awareness to action

Engage 500 households

Install 'fixes' in 200 households

## Audience:

Affordable housing residents

Families

Park City's workforce

PCHC and TMMS students

Property managers and HOAs

Spanish speakers

Others?

Are the City's Energy goals a compelling basis for discussion? Do people care more about climate change/the future or immediate energy savings, or something else?

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# actions taken

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# Messaging

Park City's residences use a LOT of energy; we need your help to tackle this

Make the invisible visible- Fun and free energy detection kits available from the library

DIY weatherization will make your home more comfortable AND save you money

We are here to help! SCPW will help install the kits if you need assistance (Spanish speakers available)

# Media Tools

## Owned

PCMC newsletter

PCMC Facebook

PCMC Instagram

Busboards

“In The Spotlight” on parkcity.org

Engage Park City

## Earned

KPCW (Local news hour, This Green Earth, Cada Domingo)

The Park Record

PCTV

Other social media:

SCPW

Future Park City

Community board at The Lucky Ones (library cafe)