

Making Electrification Work in Manufactured Housing

California Climate and Energy Collaborative Forum
June 25th, 2026



Human Spectrogram Time!

How much of the housing stock in California do you think is mobile or manufactured homes?

Human Spectrogram Time!

How much of the low-income owner-occupied housing stock in San Luis Obispo is mobile or manufactured homes?

Human Spectrogram Time!

How well do you feel you understand what daily life looks like inside a manufactured home community?

Human Spectrogram Time!

How much general policy/programmatic attention does manufactured housing get in your community?

Human Spectrogram Time!

How much climate action policy/programmatic attention does manufactured housing get in your community?

Learning Objectives

1. Learn about the opportunities and challenges associated with mobile home electrification.
2. Get the “story behind the story.”
3. Learn what actions you can take to serve these community members better.

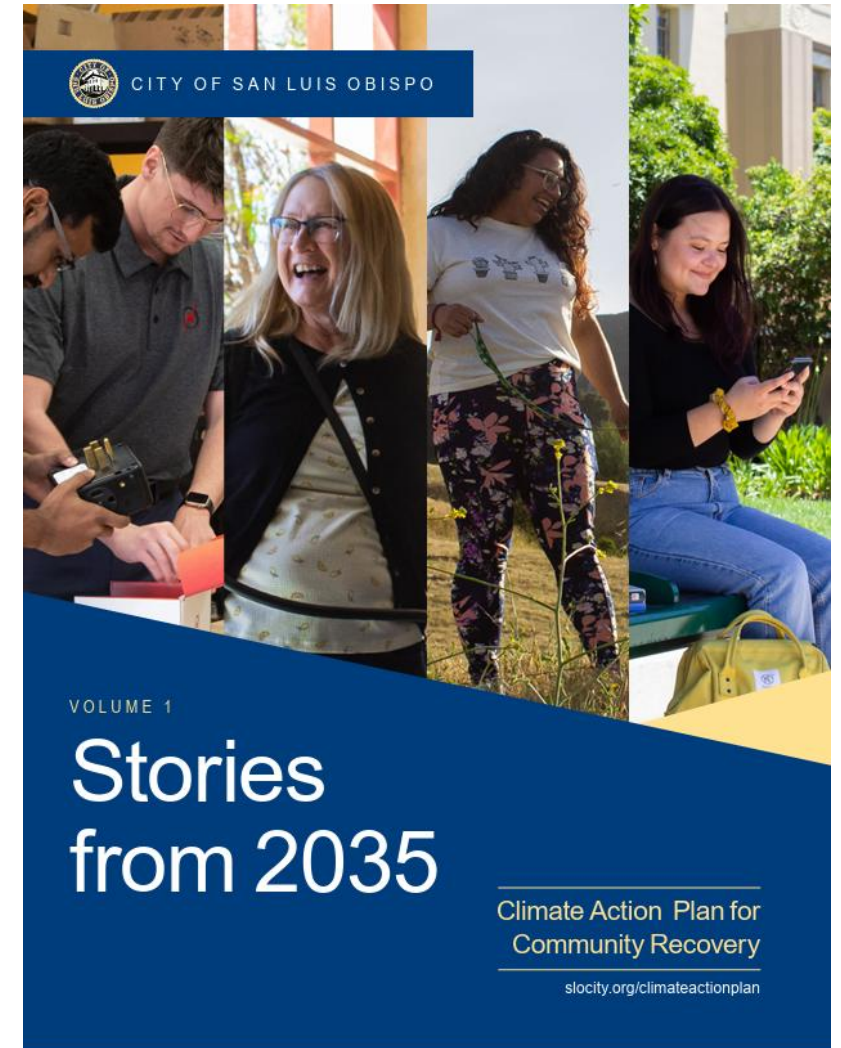
Why Mobile Homes?

Core Objectives

1. ~~Eliminating~~ Minimizing emissions from new construction through building codes
2. Reducing emissions from existing buildings through electrification (voluntary and regulatory)

Voluntary Retrofits

1. Equity focus
2. Leverage outside funds for community benefit
3. Always have a theory of scaling/transformation



Manufactured Home Characteristics

Physical

- Poor insulation, shallow wall assemblies, significant air leakage, limited attic space, and inefficient building envelopes compared to site-built homes.
- outdated electrical systems, with some having electrical service capacities as low as 30 amps.
- Aging HVAC equipment and duct leakage

Regulatory

- Regulated by HCD
- Wide variety of park ownership structures
- Unique home ownership structure
- Limited financing options

Energy System

- Typically dual-fuel (natural gas or propane)
- Typically master-metered
- Only one master-metered electrical rate
- Limited efficiency program availability

Electrification Research Project

- Study feasibility and cost effectiveness of electrification strategies in mobile & manufactured homes
- Serve residents with need
- Cover 100% of upgrade costs
- Offer technical support and energy coaching



U.S. DEPARTMENT
of **ENERGY**

Project Overview

Home Upgrades

- Weatherization
- Electrical upgrades as needed
- Water closet expansion as needed
- Heat pump water heaters
- Heat pump HVAC or window units

Resident outreach to assess needs + priorities

Home upgrades at no upfront cost

Energy monitoring for one year

Bill protection to protect against utility bill increase

Energy coaching to recommend strategies to reduce energy consumption

Home comfort check-ins held regularly



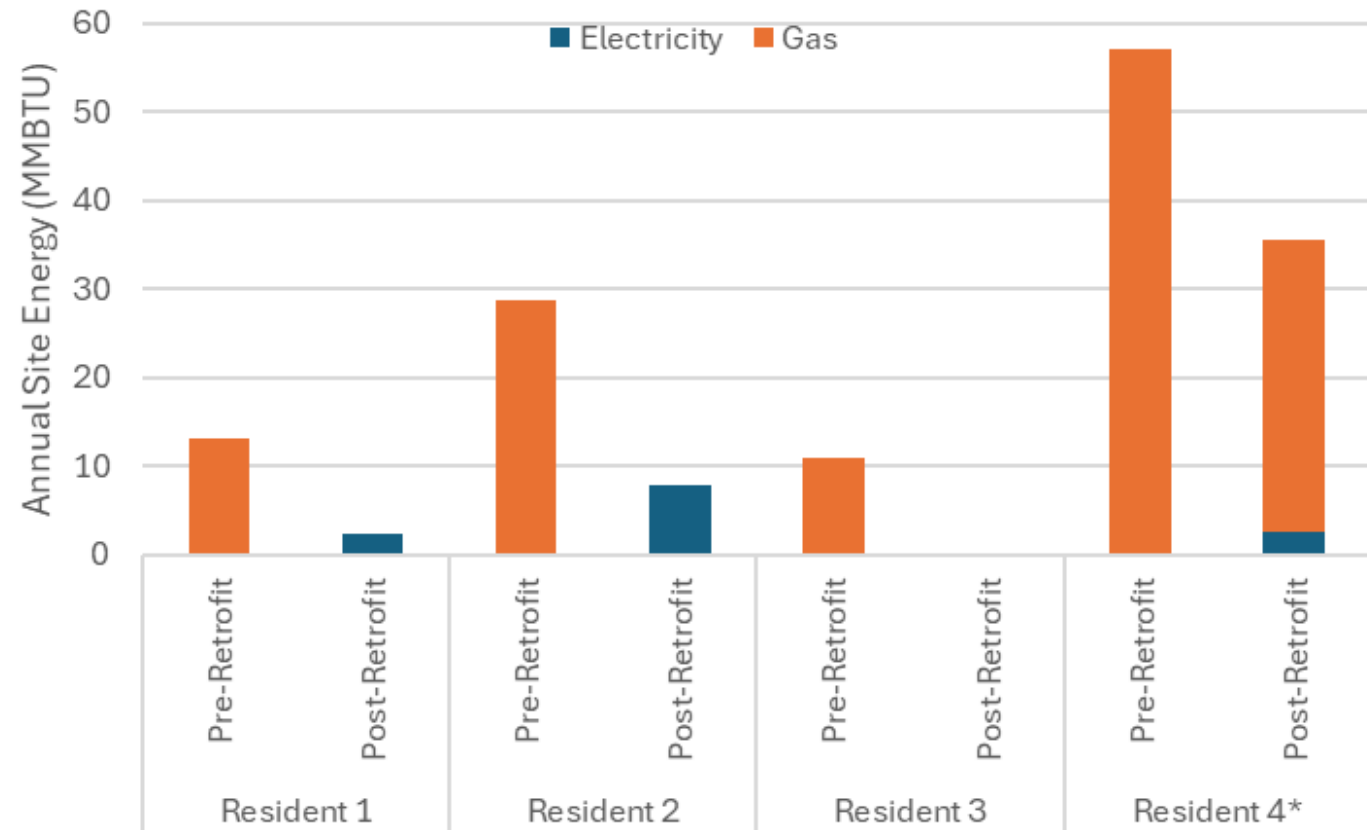
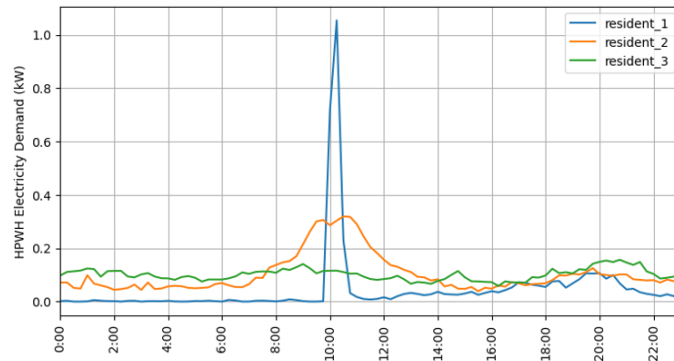
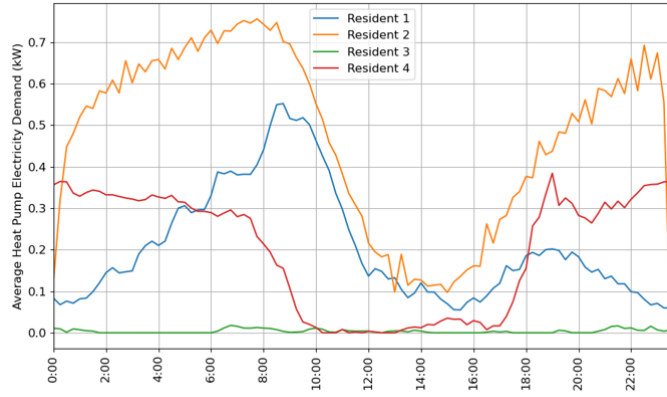
Research Findings



Research Overview

	Resident 1	Resident 2	Resident 3	Resident 4
Size	Double-Wide	Double-Wide	Single-Wide	Double-Wide
Vintage	2016	1974	1970	1975
Tenure	Own	Own	Rent	Own
Weatherization	X	X	X	X
Panel Upgrade		X	X	
HPWH	X	X	X	
Central HVAC	X	X	X	
Window HVAC				X

Energy Use Findings



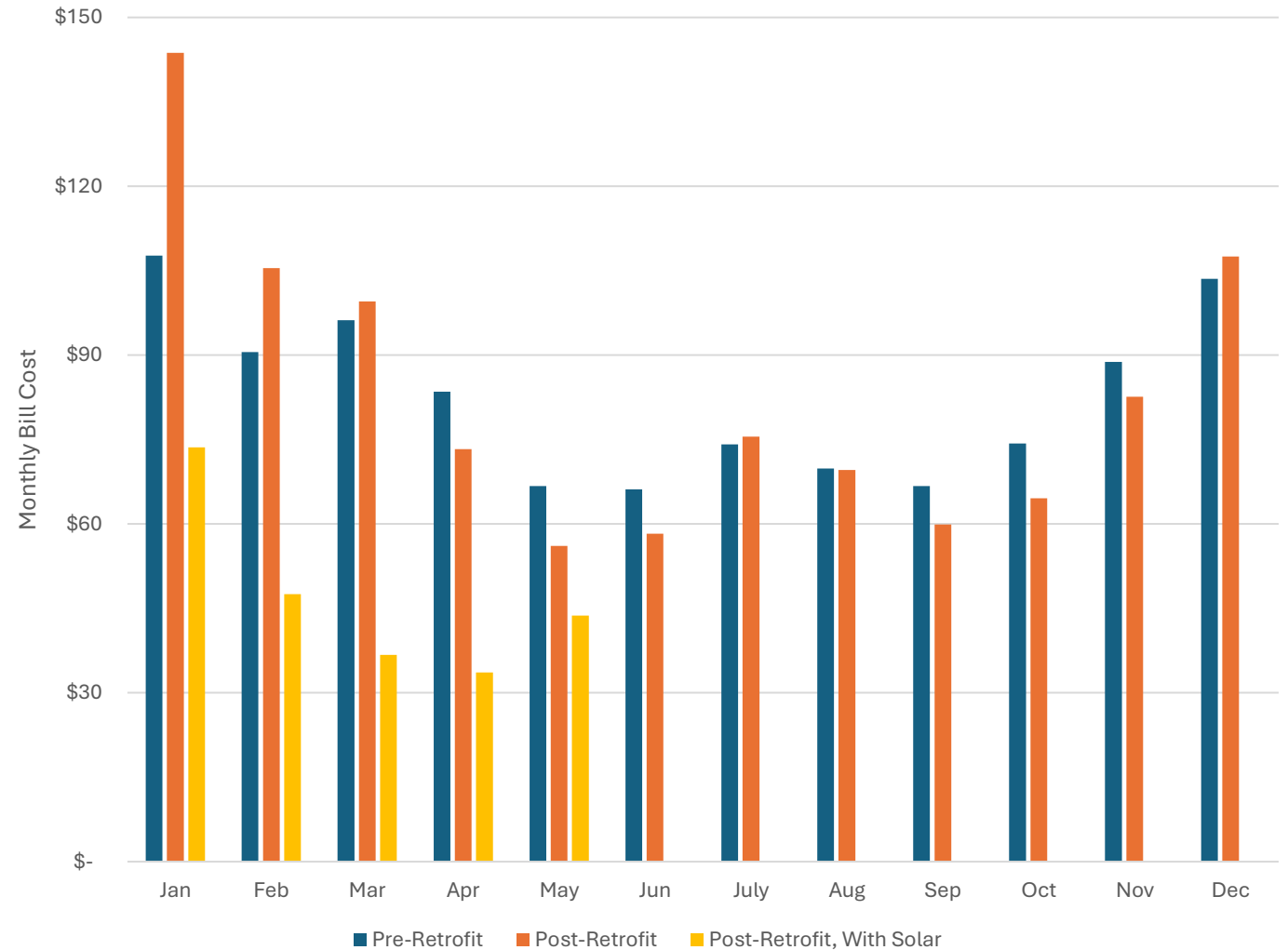
New Super Hero: Plug-in Solar



Plug-in Solar

SLO MH Plug-in Solar

- Testing to offset electrification bill increase (Fall 2025-present) in one manufactured home
- 800W system + battery
- Defying expectations so far
- Labor + panels + battery: \$4/Watt
- Pre-incentive cost for rooftop solar would be \$14/W



Calls to action!

- 1. Support SB 868!**
- 2. Advocate to your local incentive provider to include mobile homes!**



DIVERSITY COALITION
SAN LUIS OBISPO COUNTY

Why Is a Social Justice Nonprofit Doing Energy Work?



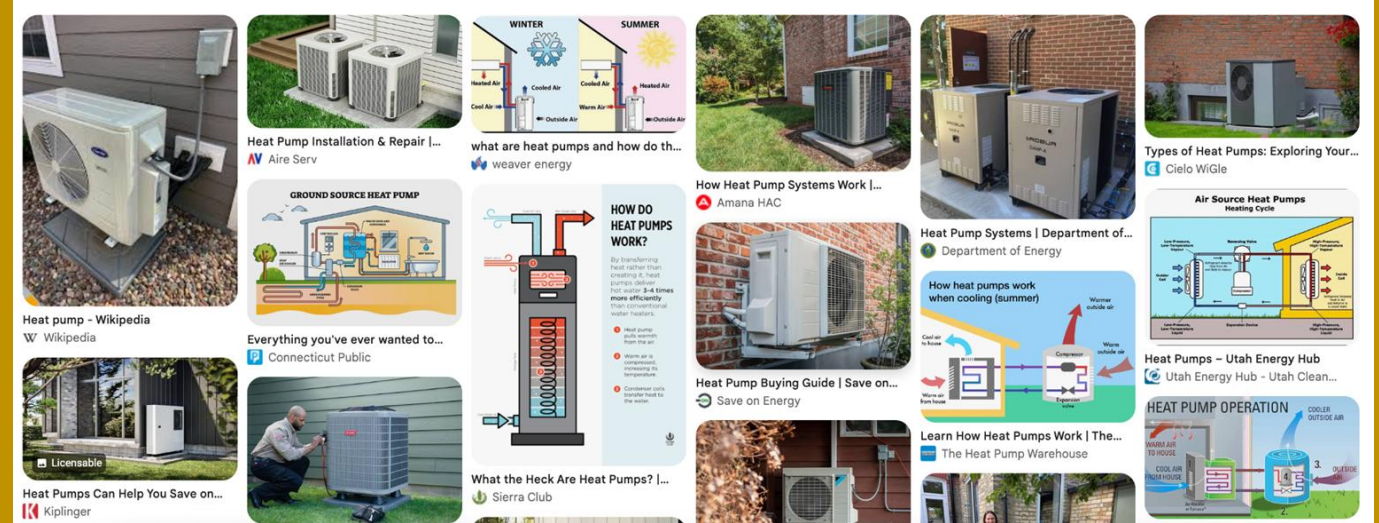


Most electrification programs focus on:

- Equipment
- Technicalities
- Rebates
- Energy savings

We focused on:

- People
- Trust
- Relationships
- Barriers to participation



DIVERSITY COALITION
SAN LUIS OBISPO COUNTY

“Meet people where they are.”

QUICK START GRANT FINAL REPORT

Developing Targeted, Inclusive Marketing and Educational Materials for Equitable Electrification

Diversity Coalition

Krysti Escobedo, Rita Casaverde, & Nia Starr, Diversity Coalition San Luis Obispo County
Courtney Haile & Nalah Loman, R.A.C.E. Matters SLO
Adrienne Garcia-Specht, Central Coast Coalition for Undocumented Student Success
Caitlin Benedict & Zach Rizk, BlocPower
October 28, 2024



TECH CLEAN
CALIFORNIA

Research Questions

- What type of clean energy messages and strategies resonate the most with BIPOC and LMI communities?
- How can a community-based marketing and outreach campaign successfully lead to heat pump adoption?



MEET THE
HEAT
PUMP

...e behind and get
...n one system.
...heat out of or into
...lling or heating.
...er home without
...all-electric.
...rol and comfort.
...ollars in
...the switch!



SCAN TO LEARN MORE
ELECTRIFICATION
FOR EVERYONE

ELECTRIFICATION
FOR EVERYONE

WHY ELECTRIFY?

¿POR QUÉ ELECTRIFICAMOS?



FOR A HEALTHY COMMUNITY

ELECTRIFICATION
FOR EVERYONE

ELECTRIFICACIÓN
PARA TODOS



Some of the learnings:

Leading with a Community Based Approach

- Lead with engaging experiences, not technology
- CBOs partnership and collaboration was key

Messaging

- “Electrification” requires explanation. Challenge and opportunity.
- Staff that represents the community. Example: Bilingual/multicultural staff
- Real, human conversations (backed by data)
- “Electrification” is not a top of mind issue, but health and cost are.



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Green and Healthy Homes

Are the people most impacted by energy costs able to easily access these programs?

If they can't then we haven't achieved equitable electrification.





Oceano Community Center
FREE EVENT



CREATING COMMUNITY

FREE LUNCH!

FREE ACTIVITIES!

- 12 PM Resource fair
- 1 PM Art Workshop
- 2:30PM Drum Circle



GUEST ARTIST
FAVIANNA RODRIGUEZ
Agent: Exit Two Booking Agency

SUNDAY
APRIL 14

**ELECTRIFICATION
FOR EVERYONE**

**ELECTRIFICATION
PARA TODOS**













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Community Action Partnership of San Luis Obispo



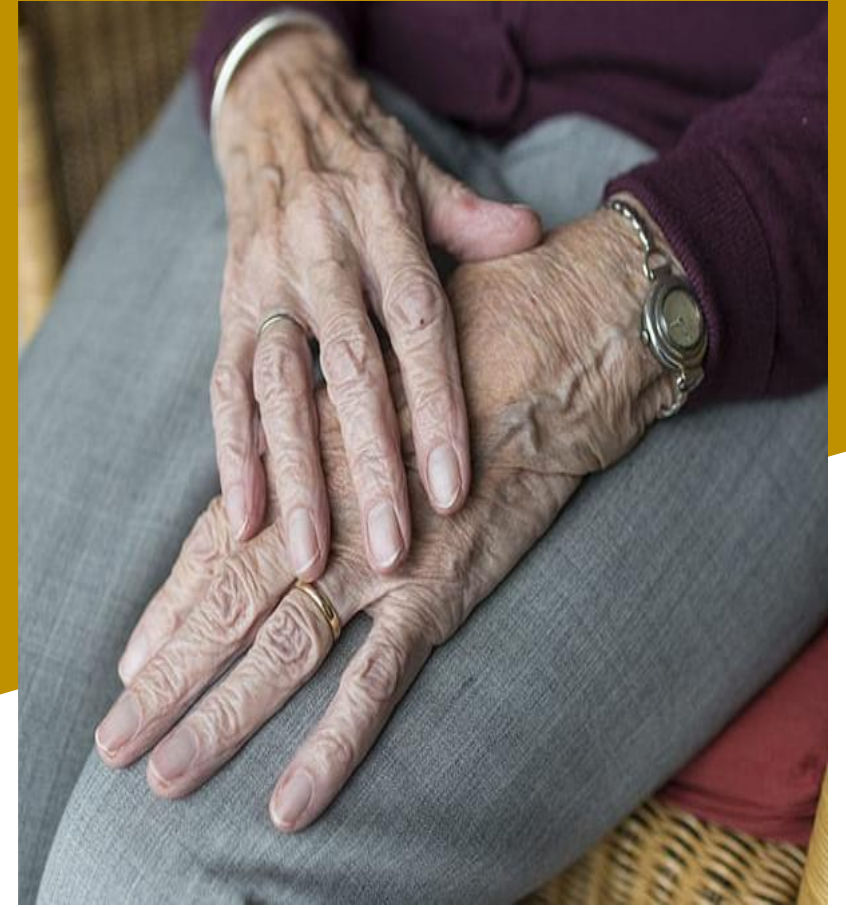


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Call to Action!

Reflect on your programs – how much of the human factor are you including in your projects?

Don't leave outreach to the end, incorporate community based organizations and partners early!



HOME ENERGY ADVISING
EVERY STEP OF THE WAY

PRESENTED BY
ERIC VEIUM,
BOARD CHAIR



WHO WE ARE

the people we've been waiting for

- Community-led climate organization supporting Education, Advocacy, and Action
- Serving San Luis Obispo County +
- Started in 2017, official 501c3 in 2023
- Partners

(02/07)



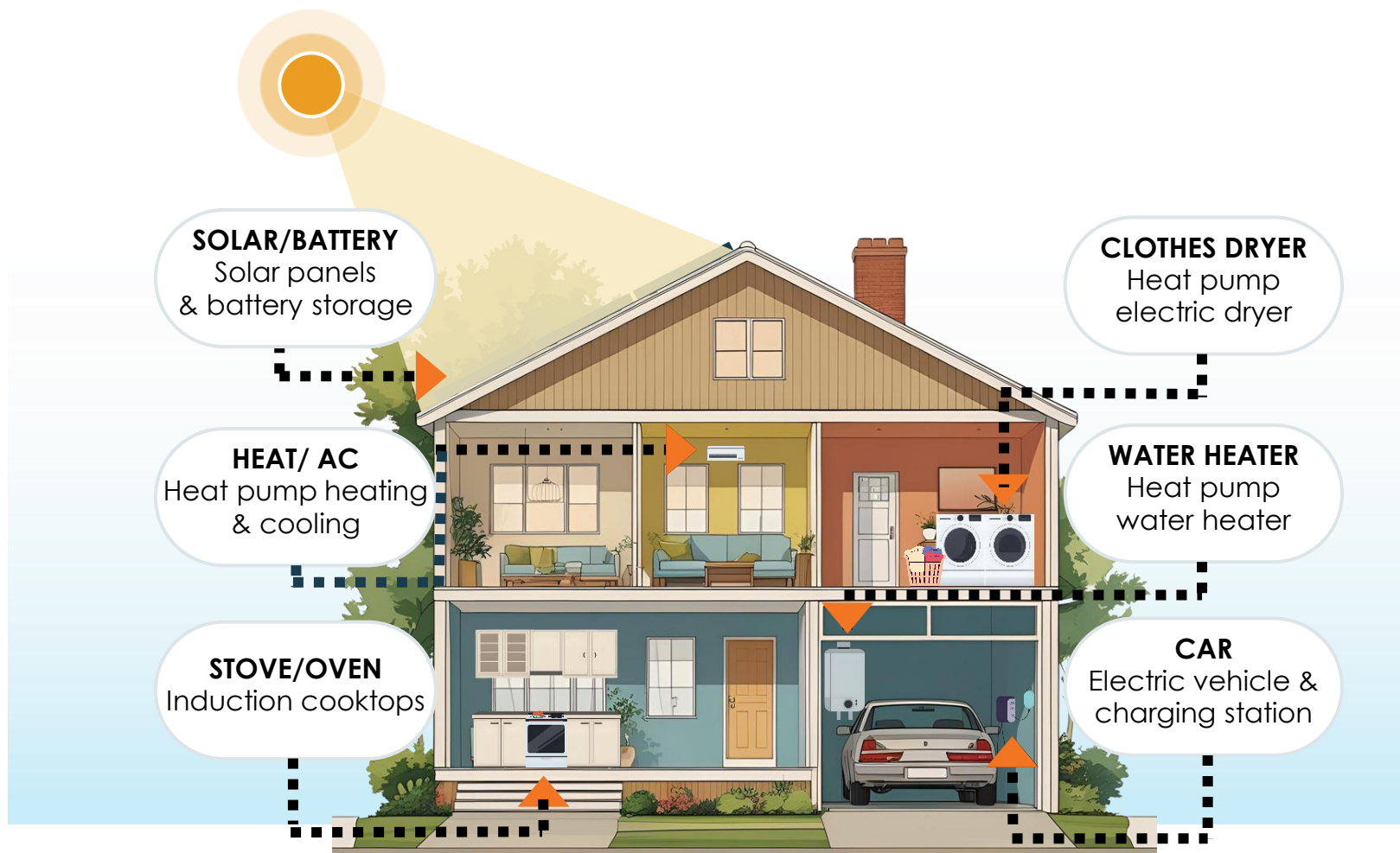
MISSION: CHAMPIONING HIGH-IMPACT, REGIONAL CLIMATE SOLUTIONS BY BRINGING TOGETHER COMMUNITY EXPERTISE, CREATIVITY & RESOURCES.

VISION: TO CREATE AND SUPPORT A VIBRANT, JUST AND CLIMATE RESILIENT CENTRAL COAST.

SLO Climate Coalition
HOME ENERGY ADVISING
EVERY STEP OF THE WAY

HOME ENERGY ADVISING

we mean it when we say **Every Step of the Way**

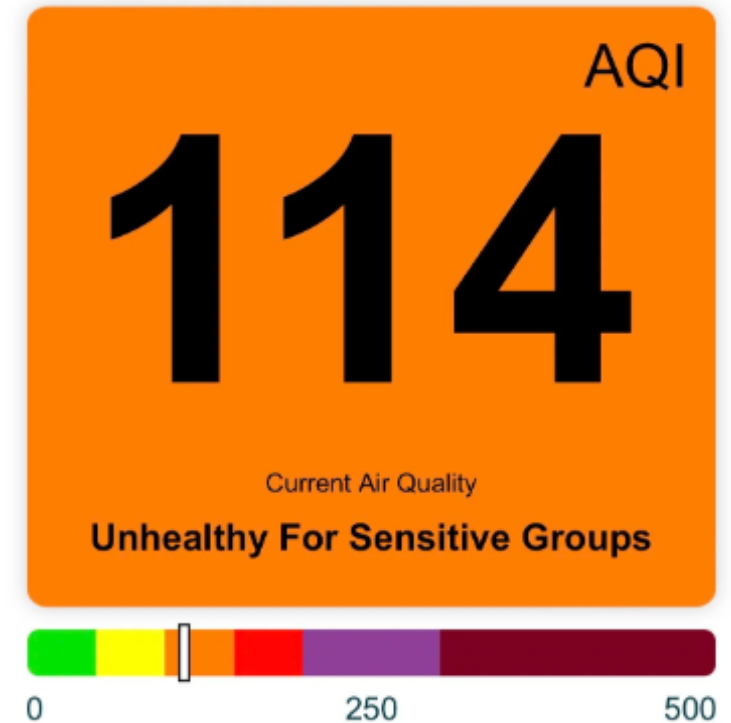


- Guide you on your journey to install new, efficient, electric appliances
- Home Visits to assess air quality and upgrade readiness.
- Help prioritize your electrification plan.
- Navigate & secure available rebates and incentives.
- Connect you with vetted contractors.
- Support you until the job is done
- Follow up to ensure comfort and performance
- Service available in both English & Spanish

PROBLEMS

that slow us down but won't stop us

- Client experience (access & value)
- Project prices (cost & incentives)
- Financial Sustainability (revenue & funding)



POSSIBILITIES

to expand services that help more people

- Home Energy Score (Bayren)
- ECC (HERS) Rater Services
- Renter Electrification Kits
- Install Heat Pump Water Heaters



CALL TO ACTION

- Identify your friendly neighborhood climate action org and commit to three things you can do to invest in your partnership and their capabilities.

THANK YOU

for partnership and community

Eric Veium, Board Chair

eric@slclimatecoalition.org

slclimatecoalition.org



Calls to action!

- 1. Support SB 868!**
- 2. Advocate to your local incentive provider to include mobile homes!**
- 3. Reflect on your programs – how much of the human factor are you including in your projects?**
- 4. Don't leave outreach to the end, incorporate community-based organizations and partners early!**
- 5. Identify your friendly neighborhood climate action org and commit to three things you can do to invest in your partnership and their capabilities.**