



SUMMER SUSTAINABILITY SERIES

- Presentation will begin shortly
- Session will be recorded
- Participants are muted
- Please be aware of Q&A at bottom of screen – ask your questions here
- We will address questions at various points in the session

www.chulavistaca.gov/clean



SUMMER SUSTAINABILITY SERIES

- July 1st, 4 PM - Organic Waste Recycling Program in Chula Vista
- July 15th, 4 PM - Protecting Our Waterways Starts with Our Storm Drains
- August 5th, 4 PM - SB1383; How Will the New Organic Waste Law Affect Chula Vista
- August 19th, 12 PM - Energy Benchmarking
- September 2nd, 4 PM - Recycling 101- Are You Wish Cycling or Really Recycling?
- September 16th, 4 PM - Chula Vista's Zero Waste Plan

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**All attendees are muted
Please type your questions in the question box**

Beneficial Electrification

Tips and Resources for Switching to Clean Electricity

Beneficial Electrification:

1. Saves the consumer money
2. Benefits the environment
3. Improves consumer quality of life
4. Fosters a more resilient grid



<https://www.youtube.com/watch?v=HDCKmAJzoV8>

Agenda

Electrifying your Cooking

- Colleen FitzSimons - San Diego Green Building Council

Solar for Low-income

- Stan Morison - GRID Alternatives

Home Electrification

- Cory Downs - City of Chula Vista

Please type your questions in the Q&A box





**WHY INDUCTION?
HEALTH IMPACTS OF GAS COOKING**

People in the US spend roughly 90% of their time indoors

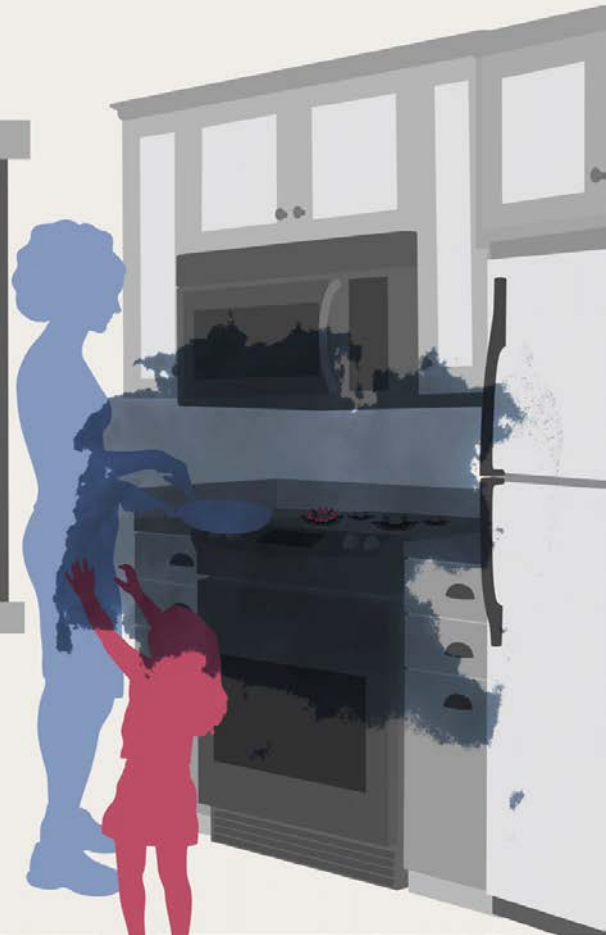
Environmental Protection Agency (EPA) warns that indoor levels of pollutants may be 2 - 5 times — and occasionally more than 100 times — higher than outdoor levels



Gas stoves can emit elevated indoor Nitrogen Dioxide (NO₂) levels often exceeding indoor air guidelines and outdoor

Outdoor Standards for NO ₂	1-hr average (ppb)
US National Standard (EPA)	100
Canadian National Standard	60
California State Standard	180
Indoor Guidelines for NO ₂	1-hr average (ppb)
Canada	90
World Health Organization	106

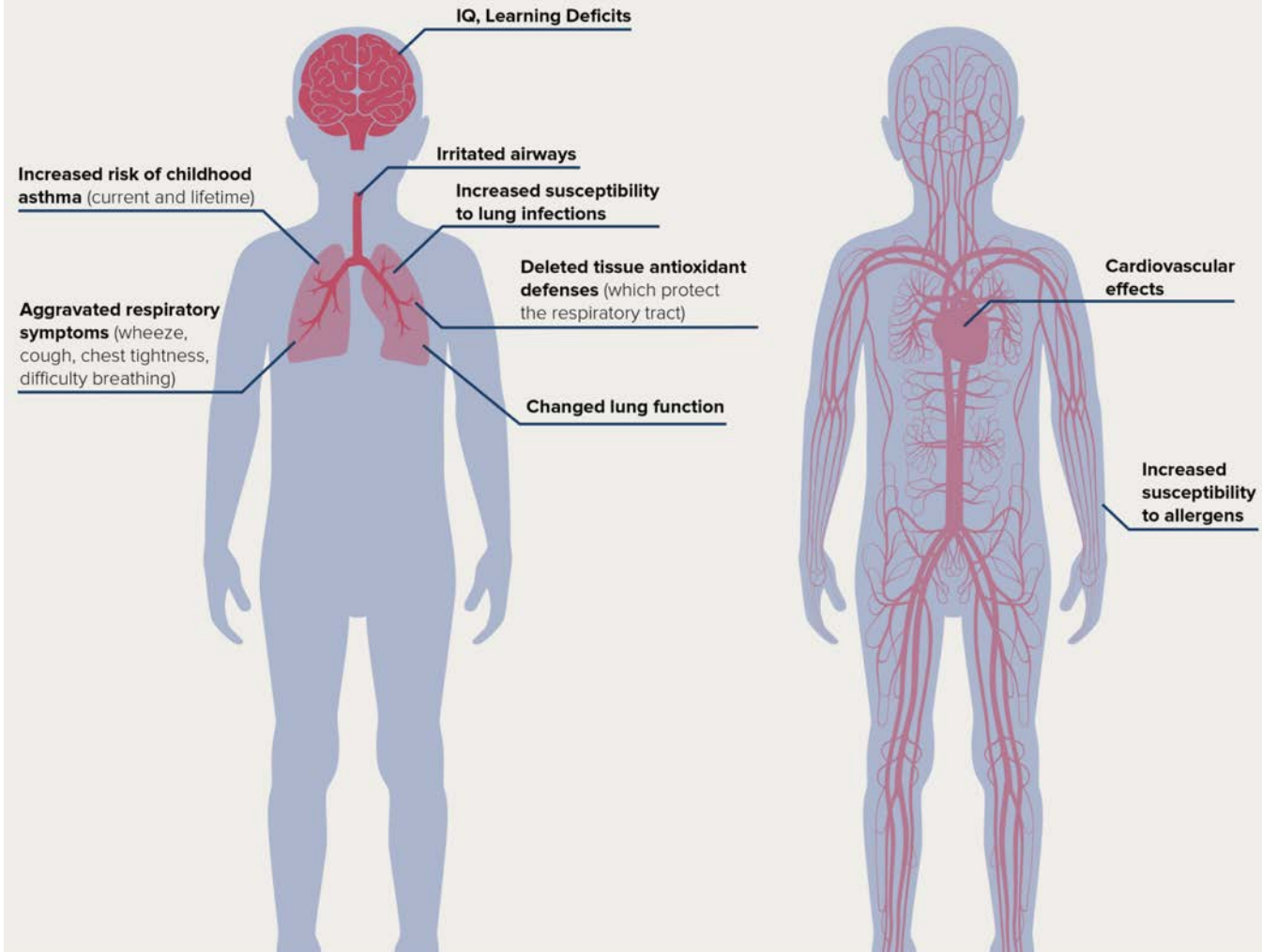
Source: <https://rmi.org/insight/gas-stoves-pollution-health>



Measured NO ₂ Emissions from Gas Stoves	Peak (ppb)
Baking cake in oven	230
Roasting meat in oven	296
Frying bacon	104
Boiling water	184
Gas cooktop - no food	82–300
Gas oven - no food	130–546



Health effects of
NO₂ in children may
include:



Three Main Factors Why Children Are More Susceptible to Illnesses Associated with Air Pollution

Higher **breathing rates** and greater levels of **physical activity**



Higher lung surface to body weight ratios and smaller bodies



Immature respiratory and immune systems



Alternative: Induction Cooking!

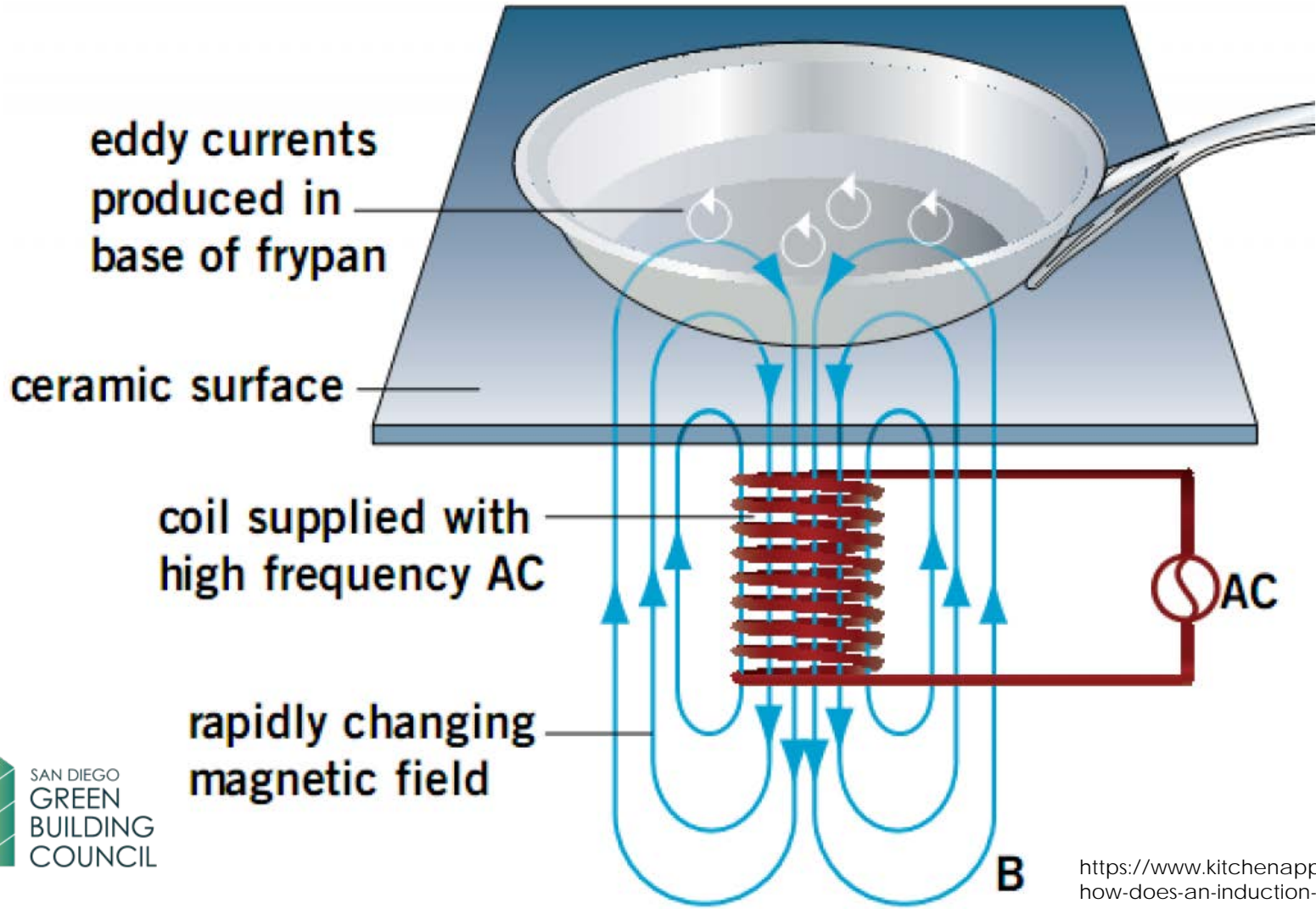
Energy Efficient

Induction: 90% of heat reaches the food

Electric range: 65-70% of heat reached the food

Gas range: 40-55% of heat reaches the food






Benefits of Induction Cooking

- Faster cook times
- Precise temperatures
- Health benefits from reduced air pollutants
- Increased energy efficiency and lower environmental impact



**ELECTRIC
HOME
COOKTOP
PROGRAM**
EHOMECOOKTOPS.COM





The **Electric Home Cooktop Program** is designed to allow anyone who is interested in experiencing cooking with an induction cooktop to do so, regardless of your experience level.



Loaner Kits Include:

- Induction cooktop
- A pan
- A magnet
- Instructions & tips



Induction cooktops use clean energy,
leaving your home & planet healthier.

THREE Pickup Locations

- San Diego
 - Solana Beach
 - Carlsbad
- + more in Phase Two!



SAN DIEGO **350**
CLIMATE ACTION



**FUTURES
UNBOUND**



**SIERRA
CLUB**





**ELECTRIC
HOME
COOKTOP
PROGRAM**
EHOMECOOKTOPS.COM



SAN DIEGO GREEN BUILDING COUNCIL

Colleen FitzSimons
Executive Director
colleen@sd-gbc.org

www.sd-gbc.org



Who we are

GRID Alternatives is a nonprofit organization that has been installing solar systems exclusively for low-income communities since 2004.

Disadvantaged Communities – Single-Family Solar Homes (DAC-SASH)

Provide no-cost solar to homeowners that qualify as low-income reducing household electricity costs by up to 80%.

For more information

Stanford Morison | Outreach Coordinator

Phone: (619) 610-0171 Text: (619) 363-2869

Email: smorison@gridalternatives.org

Eligibility

DAC-SASH Program

Disadvantaged Communities – Single-Family Solar Homes Program

Number of people in household

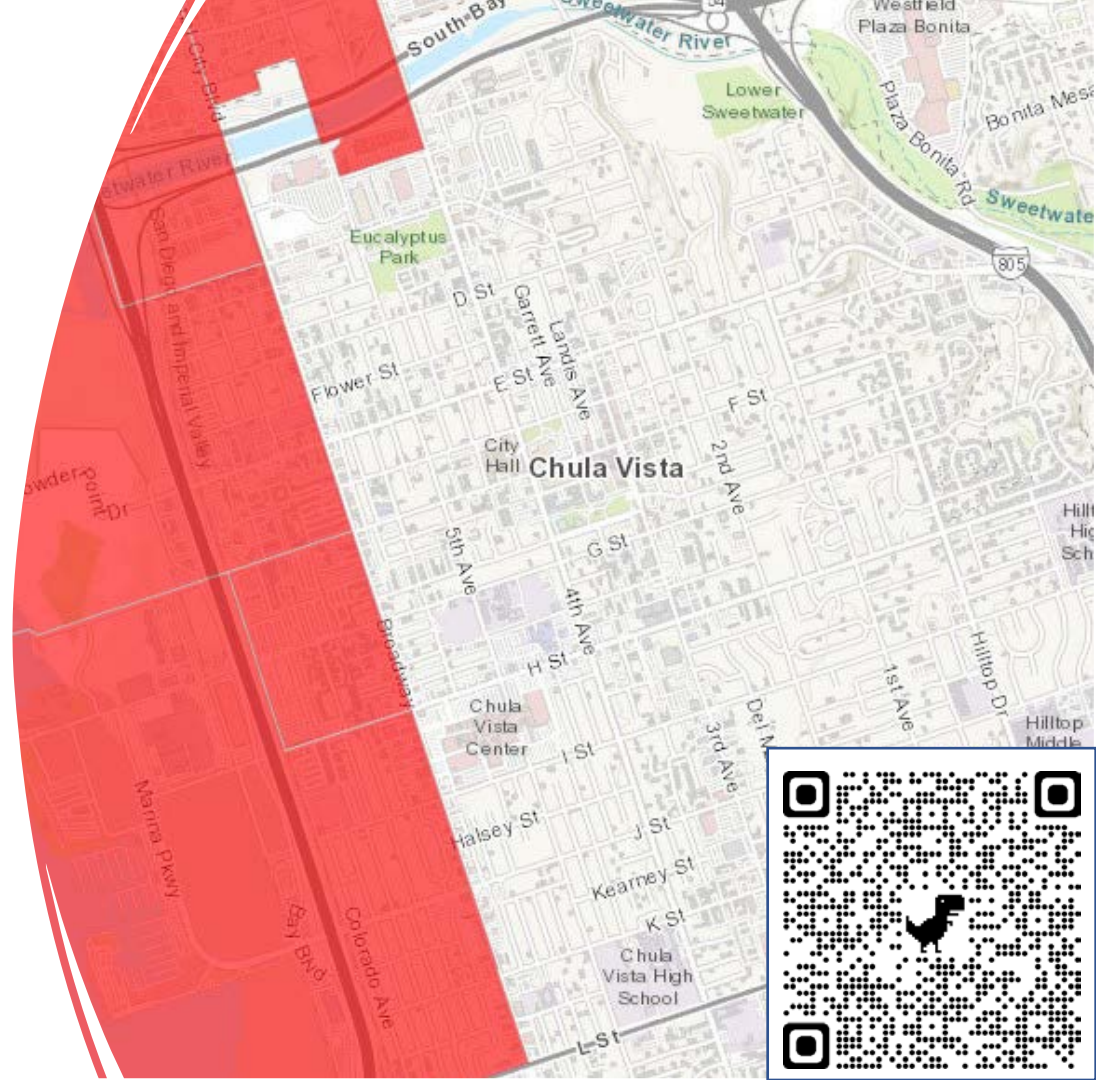
CARE/FERA Maximum Household Income

**Utility income limits*

Effective June 1, 2021
May 31, 2022

1	Same as below
2	\$34,480
3	\$54,900
4	\$66,250
5	\$77,600
6	\$88,950
7	\$100,300
8	\$111,650
Each additional person	\$11,350

*Line 9 of you 2020 Tax Return

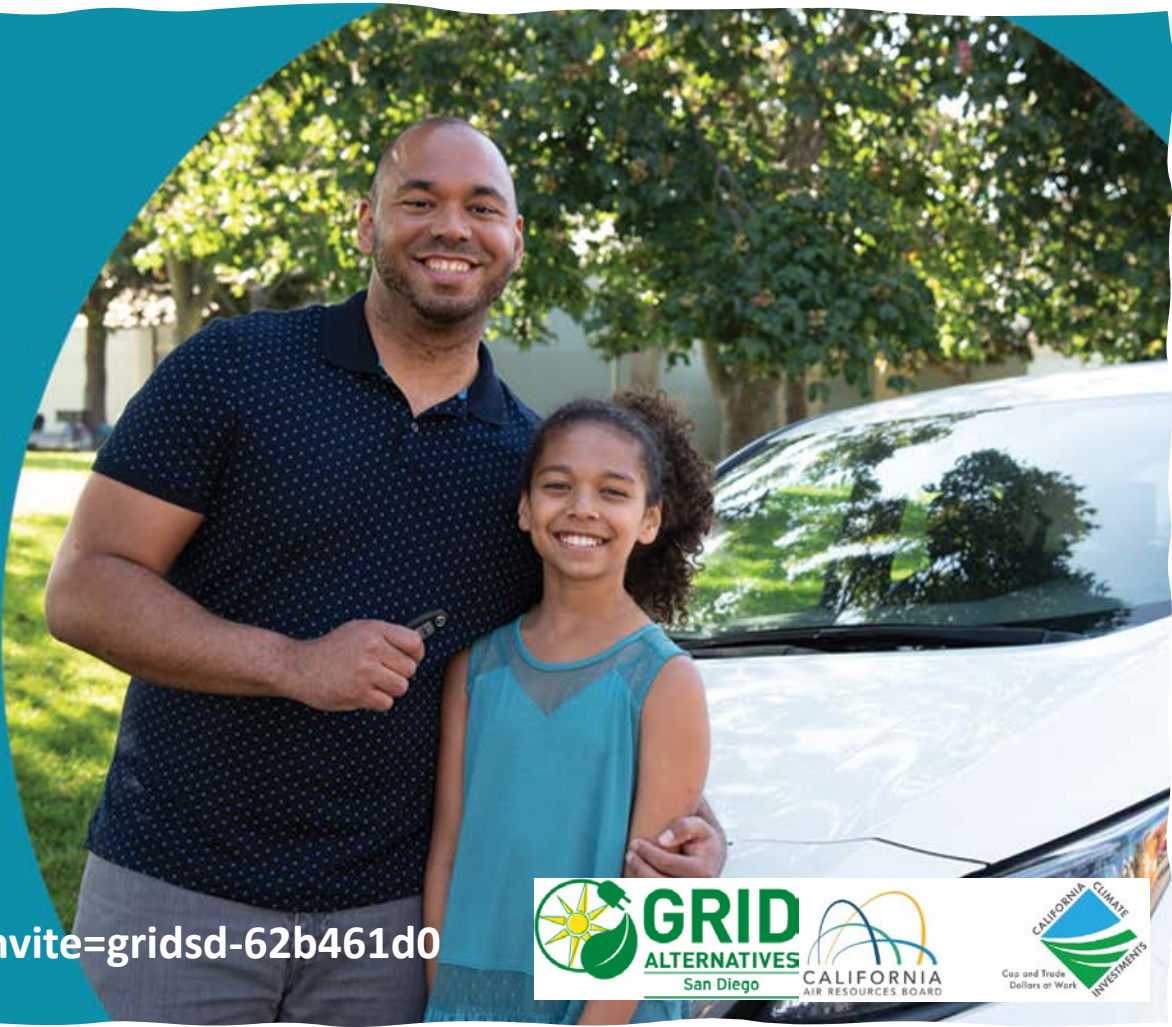


Electric vehicles are in your reach!

You could qualify for \$5000 to \$14000
toward the cost of buying or leasing
a new or used electric vehicle.



<https://app.accesscleanca.org/?invite=gridsd-62b461d0>





Questions ?

For more information

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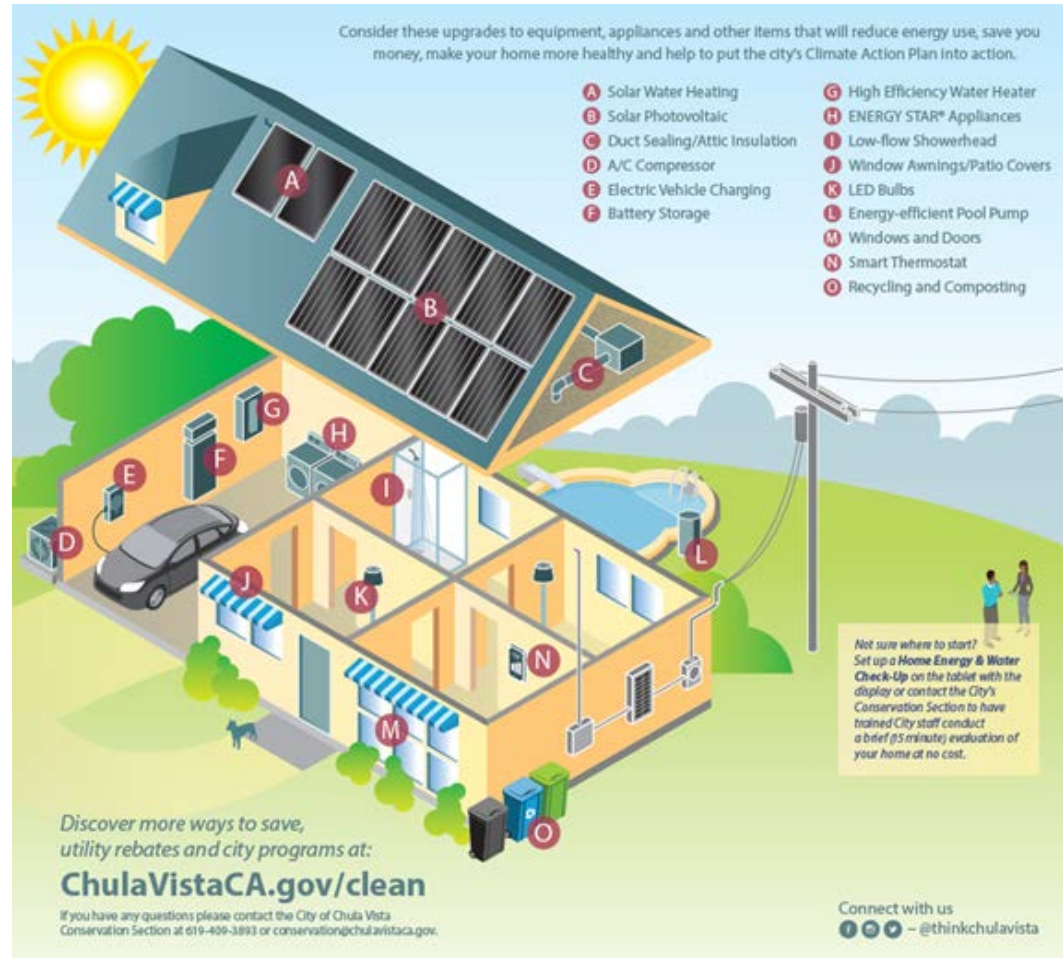
Email: smorison@gridalternatives.org

Home Electrification

Tips and Resources for Switching to Clean Electricity

Agenda

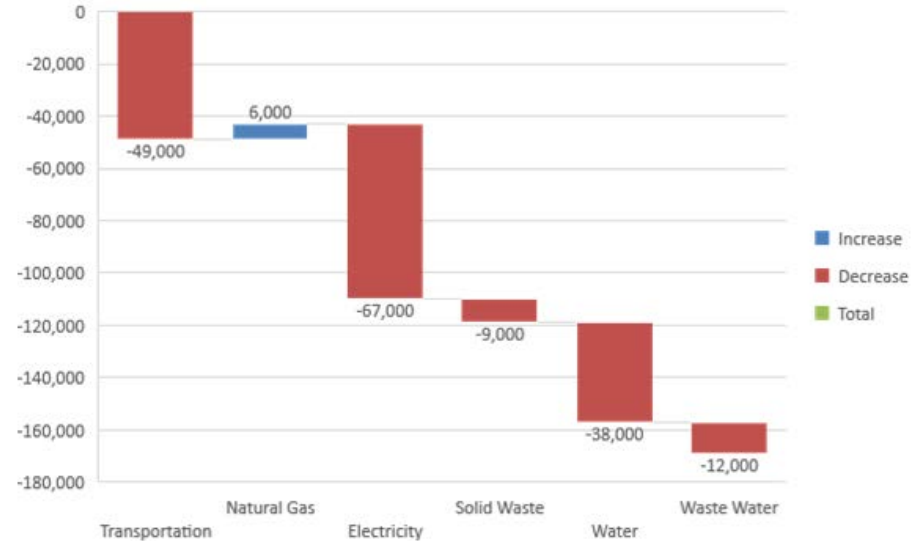
- The core four
- Energy efficiency
- Existing Home Sustainability Ordinance
- Solar energy
- Energy storage
- Retrofit tips



Why electrify?

- Path for 100% clean electricity
- Decrease local air pollution
- Utilize self generation
- Increase efficiency
- Increase service

Chula Vista emissions change since 2005 by sector



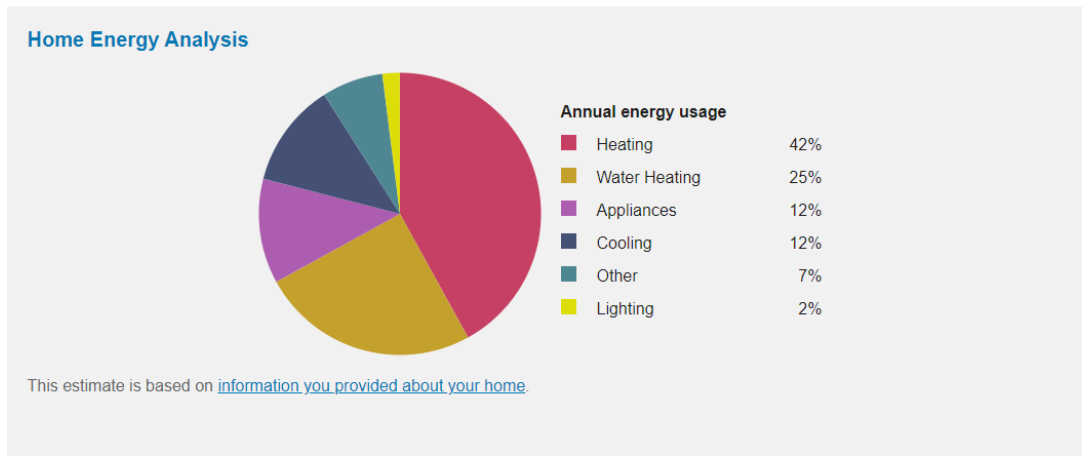
The Core Four Electrical Appliances

- Space Heating
- Water Heating (Rebate)
- Clothes Dryer
- Stove



Your Energy Use

Ways to Save



Your largest cost is **heating**.

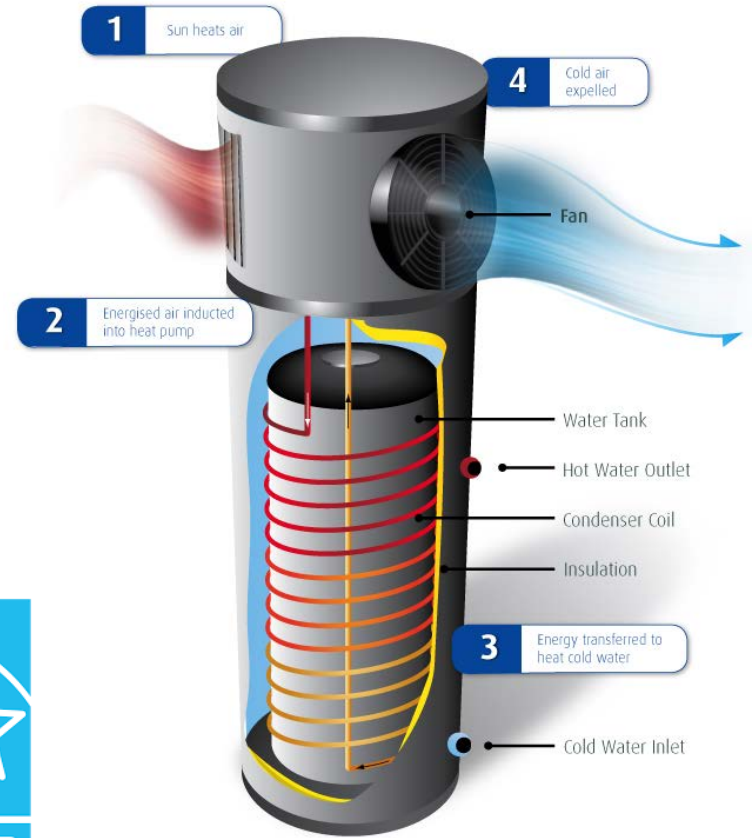
GET HEATING TIPS

- Learn about your home on SDG&E's "My Account" by taking the "Home Energy Survey" found in the "Ways to Save" page

Energy and Water Efficiency

The cleanest energy is energy that is not needed

- Heat Pump Technology - moves heat does not create it
 - \$500 SDG&E rebate - www.sdge.com/rebates
- LED lighting
- Low-flow shower heads and faucet aerators
- Energy Star appliances



Existing Home Sustainability Ordinance

Require homes built before 2006 that are performing additions or structural remodels to also perform specific energy upgrades

- Applies to all 1-4 unit buildings and individually owned units in larger residential buildings
- Typical electrification measures that also meet EHSO
 - LED lighting
 - Water heater efficiency
 - Attic insulation
 - Duct sealing
 - High efficiency water heater



Solar Energy

2021 average solar panel cost graph in Chula Vista, CA
for a 5kW system



www.energysage.com

- Unbiased general information
- Standardized solar quotes without the pressure
- Pre-screened contractors

Energy Storage



Batteries:

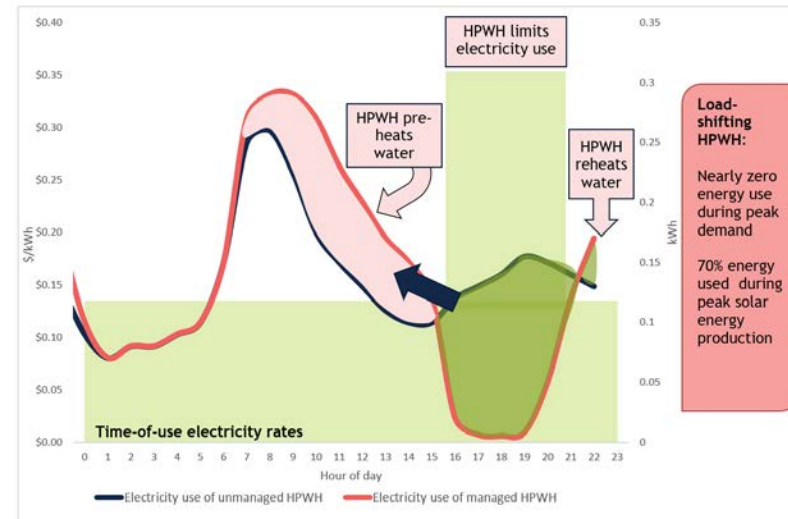


Energy Storage General Budget	Step 3 \$/Wh
Large Storage (>10 kW)	\$0.35
Large Storage Claiming ITC	\$0.25
Small Residential Storage (<=10 kW)	\$0.35

www.energycenter.org/self-generation-incentive-program

Heat Pump Water Heaters:

Smart or Grid connected (look for wifi connected and/or cta-2045) HPWHs can know utility rates and schedules to use more energy in off peak times



Retrofit Tips

- Heat Pump Water Heaters
 - Installation considerations
 - In-conditioned space
 - Noise
 - Connection to 240v outlet (120v units coming soon!)
 - Often referred as a hybrid electric Heat Pump Water Heaters which means it has an electric resistance as back up
- Limited existing breaker capacity - circuit splitters

Neo Charge¹¹⁶
Smart Splitter



BSA Electronics¹¹⁷
Dryer Buddy



SimpleSwitch¹¹⁸
240V Circuit Switch



Splitvolt¹¹⁹
Splitter Switch



Thermolec¹²⁰
DCC



Evduty¹²¹
Smart Current Sensor



A Pocket

<https://redwoodenergy.net/wp-content/uploads/2021/02/Pocket-Guide-to-All-Electric-Retrofits-of-Single-Family-Homes.pdf>

Home Energy Kits at the Library

Tools and Supplies:

IR Camera

Gas Detector

Weatherstripping and LED bulbs

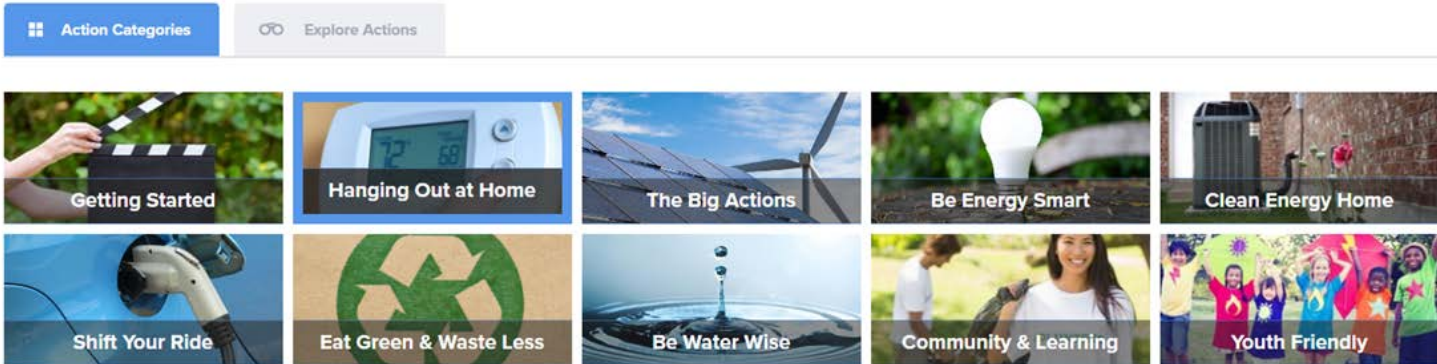
Instructional Guidebook



www.chulavistaca.gov/departments/clean/home-toolkit



CLIMATE ACTION CHALLENGE



Hanging Out at Home 29

Actions you can take while sheltering at home that make a difference and save you money!

1. Create an account at www.cvclimatechallenge.com
2. Complete the survey to find your carbon footprint
3. Earn points for taking action

Covid-19 Assistance



Need help paying your past-due rent and utilities?



Visit

chulavistaca.gov/tenanthelp

Chula Vista residential tenants (renters) who have experienced financial hardship due to the COVID-19 pandemic may qualify.



Call

(619) 271-1805

If you are not a resident of Chula Vista, but live within San Diego County, rent and utility resources are available at www.ERAPsandiego.org

This project is being supported, in whole or in part, by federal award number ERA0131 awarded to the City of Chula Vista by the U.S. Department of the Treasury.

Questions?



CITY OF
CHULA VISTA



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Sign up

Start changing!

Visit www.chulavistaca.gov/clean

Your actions make a difference!



www.chulavistaca.gov/clean

Questions?



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