



**BAYREN**

**STOPWASTE**  
at home • at work • at school

# Building Electrification Rebate Webinar

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February 9, 2023

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Chris Hunter, StopWaste

# Housekeeping

- This webinar is being recorded will be available for later viewing online
- A copy of the slides and links to resources mentioned will be distributed
- Participants can submit questions in the Q&A box any time
- If you miss any part of this webinar or have additional questions, contact [sustainability@piedmont.ca.gov](mailto:sustainability@piedmont.ca.gov)



# Agenda

- Overview of BayREN and building electrification
- Overview of Piedmont's Electrification Rebate Program
- Overview of BayREN's Rebate Program
- Panel Question & Answer (Q&A) Session



**But first, a quick poll!**



# Who is StopWaste?



- Countywide public agency with 17 member agencies representing Alameda County, its 14 cities, and 2 sanitary districts
- Outreach & education for residents and businesses
- Key Programs:
  - Enforce Mandatory Commercial Recycling & Composting Law
  - Food Waste Reduction and Home Gardening
  - Household Hazardous Waste
  - K-12 Environmental Education
  - Green Buildings & Energy Council
  - Support Member Agency Staff
  - ...and more!



# The Bay Area Regional Energy Network (BayREN)

*BayREN is a highly effective and trusted group of local governments that deliver targeted, integrated, and regional-scale climate solutions focused on energy, water, and resilience.*



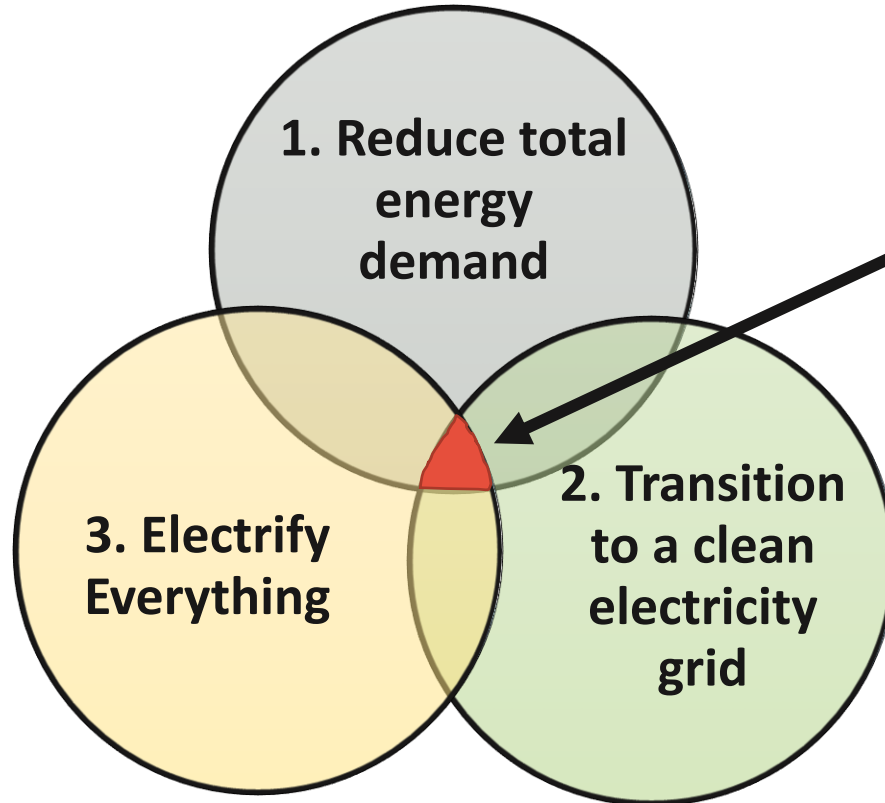
# The Changing Energy Market

What does this mean for you in the short- and long-term?

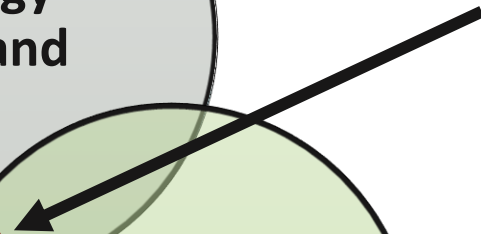


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# Getting to a Zero-Emissions Energy Sector



**Decarbonization**





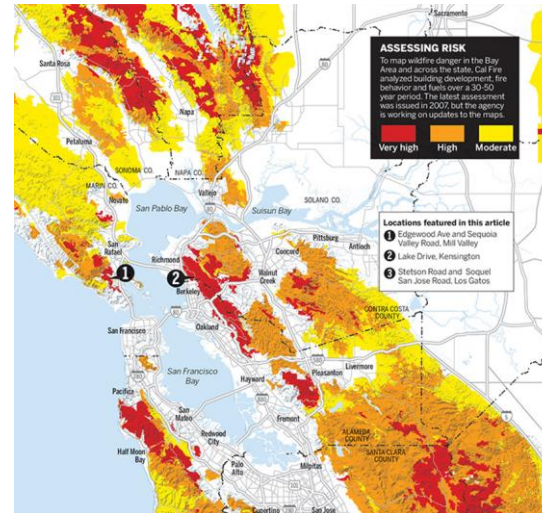
# Electrification Policy

- Piedmont has all-electric reach code for new construction and renovations
- Other jurisdictions considering strategies to electrify existing building stock
- CA to ban sale of new gas furnaces and water heaters in 2030 – could be sooner in Bay Area



# What Does This Mean?

- Time-of-Use (TOU) Electricity Rates
- Gas prices = more unpredictable in short-term, more expensive relative to electricity in long-term
- Need for resilience:
  - Power shut-offs / PSPS events
  - “The Big One”
  - Indoor air quality
  - Extreme heat

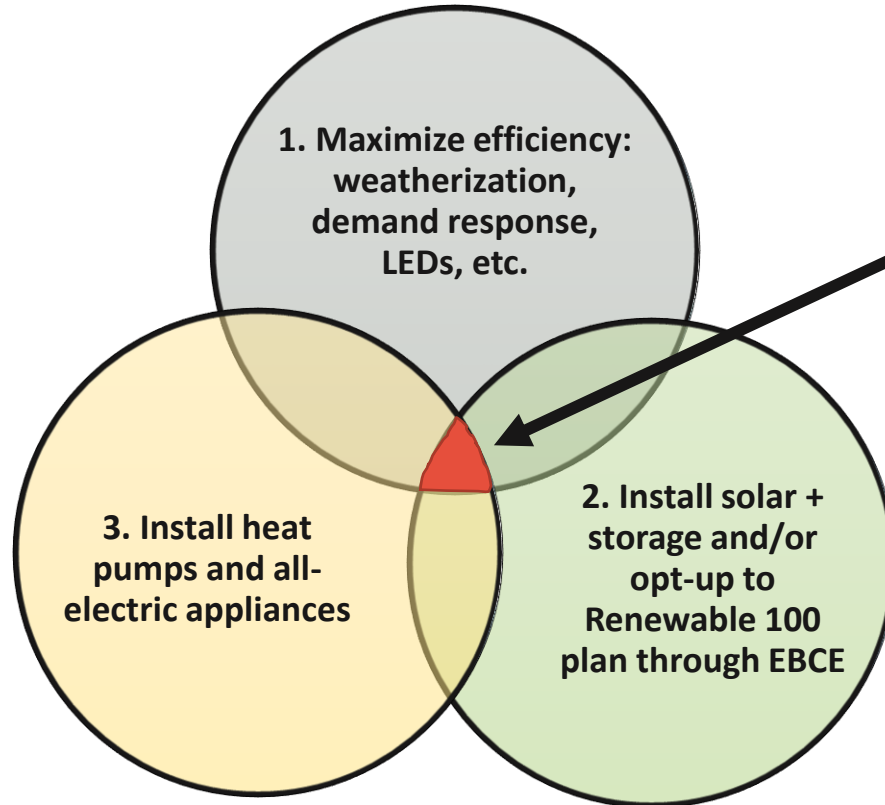


# Envisioning a Zero-Emissions Home

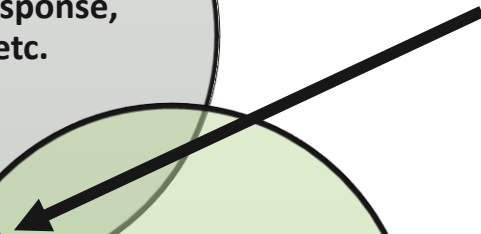
How do heat pumps fit into an all-electric home?



# Getting to a Zero-Emissions Home

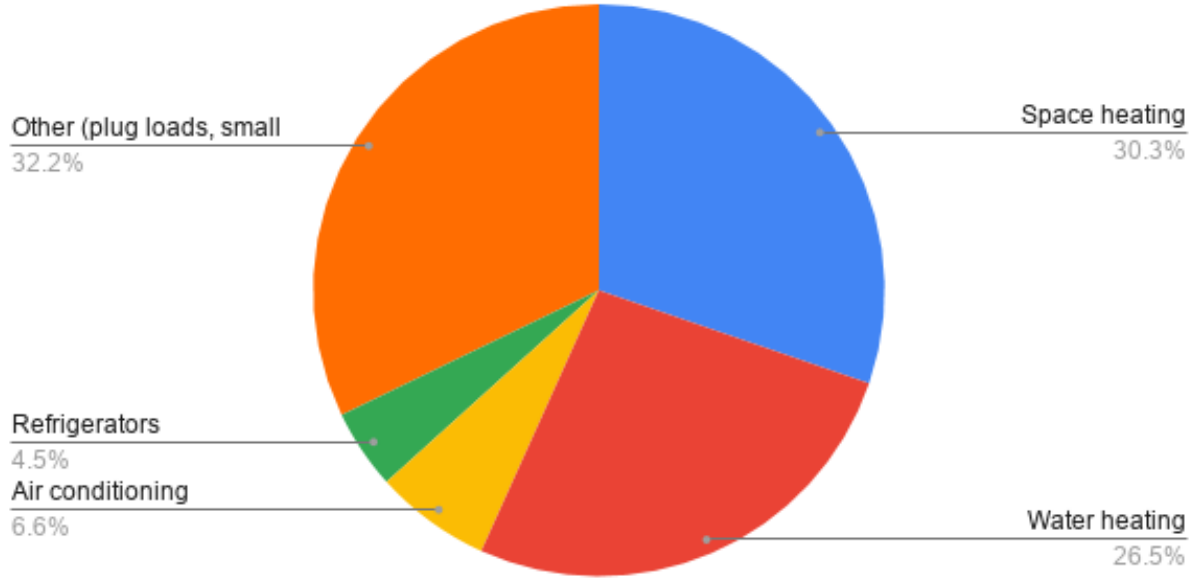


**Decarbonization**



# How does your home use energy?

Household Energy End Use consumption in BTUs,  
Pacific region, U.S. EIA



# Efficiency first!



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Source: U.S. Department of Energy

# Electrify Everything



Heat pumps for space heating and cooling



Heat pump water heaters



Induction cooktops



Heat pump clothes dryers



... and more!



# Non-Climate benefits of an all-electric home

## Health

- Burning natural gas emits harmful indoor air pollutants into the home
- Children in homes with gas stoves are 24-42% more likely to develop asthma (RMI)

## Safety

- Zero risk of gas leaks or explosions
- Reduced risk of burns

## Comfort

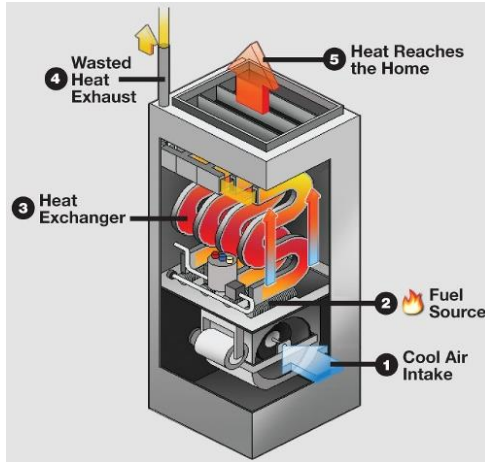
- Heat pumps provide dual heating and cooling
- Electric appliances can be quieter than gas and produce less residual heat

## Utility bill savings

- Heat pumps are 3-5x more efficient
- Leverage off-peak TOU pricing
- Pair with solar + storage to generate your own electricity

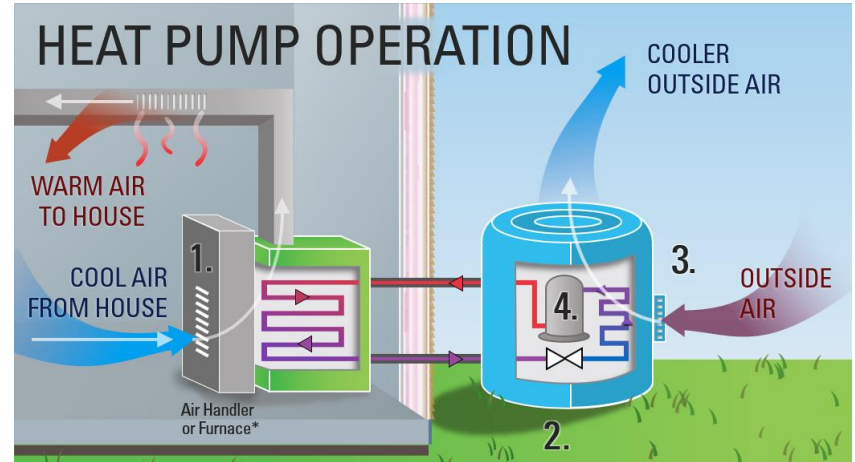


# How Heat Pumps Work



Gas Furnace

[boltonservicewnc.com](http://boltonservicewnc.com)



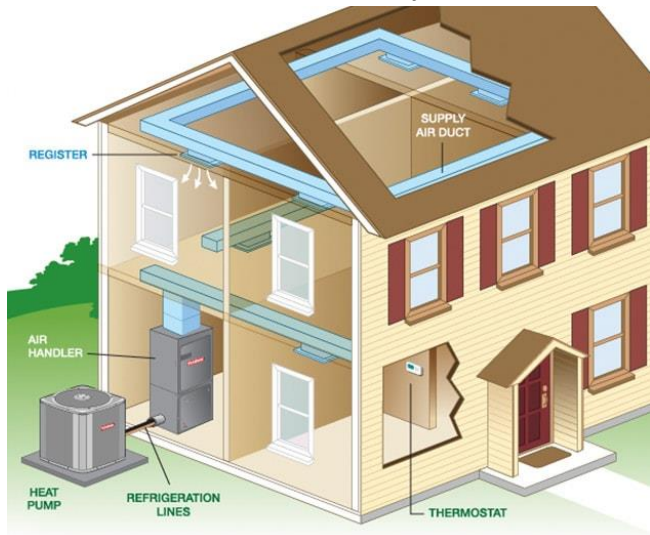
Heat Pump HVAC System

[Energystar.gov](http://Energystar.gov)

- Gas furnaces *make* heat, heat pumps *move* heat
- Can heat or cool house

# Heat Pumps for Heating & Cooling

Central ducted system



Source: Goodman Manufacturing

Ductless mini-split system



Source: EnergySTAR

- ~300% efficient (gas furnaces range from 70-95% efficiency)
- Provide heating AND cooling
- Variable speed – more consistent temperature and quieter to run



# City of Piedmont Pilot Electrification Rebate Program



# Overview

- Rebates for heat pumps, heat pump water heaters, & panel upgrades
- Each applicant is eligible for one rebate per appliance type per address
- Rebates are available for existing single-family and multi-family properties
- Eligible low-income applicants may qualify for additional funding
- Contractors who register with BayREN eligible for signing bonus



# Eligible Appliances

- Heat Pumps (ducted and ductless)
- Heat Pump Water Heaters
- Service Panel Upgrades



Image Credits: U.S. Department of Energy, Rheem, The Spruce (Kevin Norris)



# Service Panel Upgrades

- Service panel connects the main power line to your home and distributes electrical currents accordingly
- Older homes tend to have less capacity (60-100 Amp panels)
- Service line increase may be necessary when panel needs greater capacity or physical space for new circuits
- Nonetheless, electrification can be achieved with a 100 Amp panel through “panel optimization”



# Piedmont Rebates

Equipment	Standard Rebate	Income Qualified Rebate*
Central Air Source Heat Pump	\$1,500	\$3,000
Mini-Split Heat Pump	\$750	\$1,500
Heat Pump Water Heater	\$800	\$1,600
Service Panel Upgrade**	\$500	\$1,000

\*Income qualified rebates are eligible to those with incomes below 80% of the area median income

\*\* Service panel upgrade only eligible if required for new heat pump equipment



# Piedmont Income-Qualified Rebates

- Eligible low-income applicants may qualify for additional rebate funding. Low-income households defined as **those with incomes below 80% of the area median income** (California Department of Housing and Community Development).
- Verify eligibility with a copy of utility bill showing participation in CARE/FERA discounted rate program, verification that the unit is deed restricted affordable housing, or copy of tax returns

Number of Persons in Household	1	2	3	4
Extremely Low (0-30% of AMI)	\$28,800	\$32,900	\$37,000	\$41,100
Very Low (30-50% of AMI)	\$47,950	\$54,800	\$61,650	\$68,500
Low (50-80% of AMI)	\$76,750	\$87,700	\$98,650	\$109,600
Median (80-120% of AMI)	\$87,900	\$100,500	\$113,050	\$125,600
Moderate (120% of AMI)	\$105,500	\$120,550	\$135,650	\$150,700

Source: Department of Housing and Community Development, 2021





# Piedmont Program Requirements

- ✓ New electric equipment must **replace existing gas equipment**
- ✓ Rebates will **only be issued for existing buildings**; new construction is not eligible
- ✓ Rebates can be applied to equipment and installation labor for projects **applying for a building permit on or after January 3, 2023**
- ✓ Rebates will not be **distributed until after the Building Permit is finalized**
- ✓ Equipment must be **installed by a City of Piedmont licensed and insured contractor**
- ✓ Equipment must be **fixed to the property**



# Rebate Application: Step-By-Step Guide

## Step 1: Work with your contractor to fill out and submit a Building Permit

- Projects involving a heat pump HVAC installation must complete a Mechanical Permit
- Projects involving a heat pump water heater installation must complete a Water Heater Permit
- Projects involving an electrical panel upgrade must complete an Electrical Permit

\*If submittal does not meet Design Review Exemptions, a Design Review Permit is also required



# Rebate Application: Step-By-Step Guide

## Step 2: Review program requirements & complete online application

- You will be notified via email if your application is approved and your rebate funding has been reserved
- Rebate checks will only be issued to the property owner or a tenant with expressed approval from the property owner
- Income-qualified applicants must verify eligibility



# Rebate Application: Step-By-Step Guide

**Step 3: Once permits have been issued and the appliance has been installed, schedule an inspection with the City's Building Division**

- Schedule building inspections online at:  
[piedmont.ca.gov/services\\_departments/planning\\_building/building\\_inspections](http://piedmont.ca.gov/services_departments/planning_building/building_inspections)



# Rebate Application: Step-By-Step Guide

## Step 4: After passing final inspection, submit the following documentation via email

- Email [sustainability@piedmont.ca.gov](mailto:sustainability@piedmont.ca.gov) with subject: *Electrification Rebate - Final Docs, Last Name*
- Permit number and proof of final inspection from the Building Department
- Proof of payment for the installation and equipment (paid invoice)
- Photos of installed equipment (include one photo of equipment installed and one photo of the make/model label)
- Completed W-9 form if the rebate amount is more than \$600



# Rebate Application: Step-By-Step Guide

## Step 5: Receive your rebate check!

- The City will issue the rebate check to your designated payee
- Please allow 2-6 weeks for your rebate check to be issued
- Payee will receive a Form 1099-MISC if the rebate amount given is more than \$600



# Contractor Signing Bonus



- Contractors who register with the Bay Area Regional Energy Network (BayREN) after January 1, 2023 will be eligible for a \$500 signing bonus
- Contractors must have an active Piedmont business license
- Contractors must not already be a BayREN participating contractor



# Rebates and Resources

Simple ways to a healthier,  
more efficient and  
comfortable home



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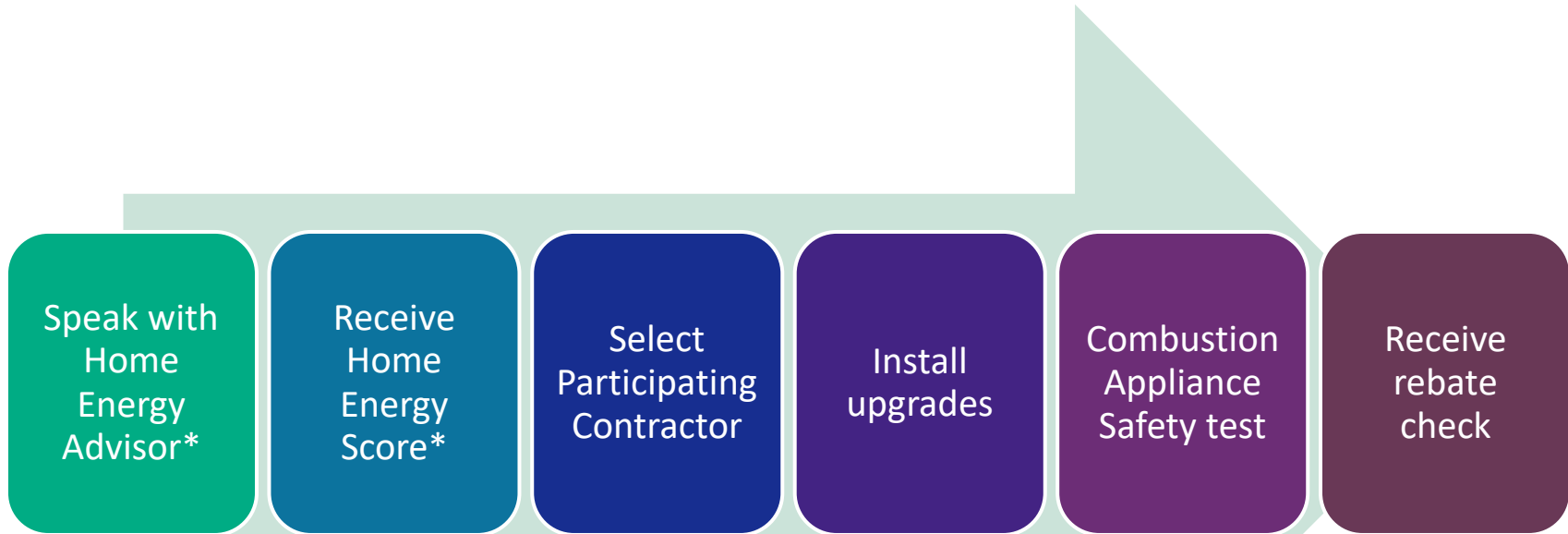


# BayREN Heat Pump Rebates

- **\$1,000** to replace existing gas water heater with heat pump
- **\$1,000** to replace existing HVAC system\* with heat pump
  - *\*Existing A/C is required to qualify for central ducted heat pump rebate*
- **Up to \$2,950** for building shell upgrades (including attic and wall insulation, air sealing, and duct repair/replacement)
- **Up to \$1,100** in bonus measures for combining building shell upgrades with a heat pump



# Sample Project – Process



*\*Optional*



# Home Energy Advisor

- Free, unbiased advice for completing your Home Upgrade
- Technical and programmatic experts
- Assistance finding a Participating Contractor
- Referrals to complementary programs

(866) 878-6008  
[advisor@bayren.org](mailto:advisor@bayren.org)  
[www.bayren.org/energy-advisor](http://www.bayren.org/energy-advisor)

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# More incentives on the way!

- **Inflation Reduction Act**

- Tax credits available now!
- Additional incentives coming 2024

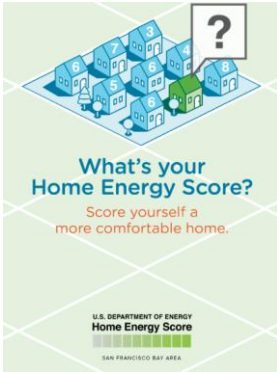
- **TECH Clean California**

- Additional rebates for Heat Pump HVAC systems
- Coming Spring 2023

- **Self-Generation Incentive Program (SGIP)**

- Additional rebates for Heat Pump Water Heaters
- Coming Summer 2023

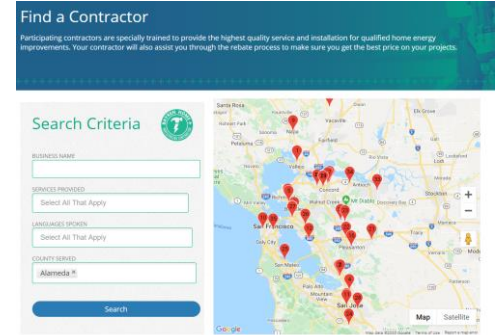
# Getting Started



Get a Home Energy Score  
[www.bayren.org/hes](http://www.bayren.org/hes)



Contact an Advisor  
866-878-6008  
[advisor@bayren.org](mailto:advisor@bayren.org)



Find a Contractor  
[www.bayrenresidential.org/find-a-contractor](http://www.bayrenresidential.org/find-a-contractor)

Questions? Reach me at [chunter@stopwaste.org](mailto:chunter@stopwaste.org) or (510) 891-6567



# Panel Discussion + Q&A

**Bob Tuck**, President, Atlas Heating & Air Conditioning

**Chris Hunter**, Program Services Specialist, StopWaste and BayREN

**Joseph Graves**, Home Energy Advisor, Hassler Heating & Air Conditioning

**Paki Muthig**, Building Official, City of Piedmont

*Moderated by: Alyssa Dykman, Sustainability Manager, City of Piedmont*

# Thank you!

Today's speakers:

- **Alyssa Dykman**, City of Piedmont – [adykman@piedmont.ca.gov](mailto:adykman@piedmont.ca.gov)
- **Bob Tuck**, Atlas Heating & Air Conditioning – [btuck@atlasheating.com](mailto:btuck@atlasheating.com)
- **Chris Hunter**, StopWaste – [chunter@stopwaste.org](mailto:chunter@stopwaste.org)
- **Joe Graves**, Hassler Heating & Air Conditioning – [joseph@hasslerheating.com](mailto:joseph@hasslerheating.com)
- **Paki Muthig**, City of Piedmont – [pmuthig@piedmont.ca.gov](mailto:pmuthig@piedmont.ca.gov)

# Resources Shared During the Webinar

- [Panel Optimization](#)
- [City of Piedmont Electrification Rebate Program Informational Guide](#)
- [City of Piedmont Electrification Rebate Application Form](#)
- [BayREN Home Energy Advisor](#)
- [BayREN Rebate Program](#)
- [Rewiring America Inflation Reduction Act Calculator](#)
- [TECH Clean California](#)
- [The Switch Is On](#)
- [Self-Generation Incentive Program](#)