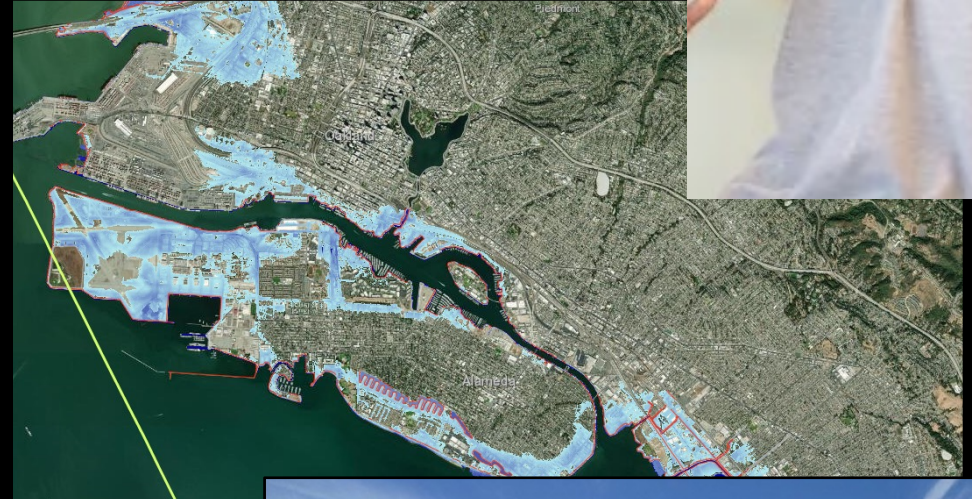


# *Efficient Electrification for Home Rehab Projects*



May 9, 2024

*City of Oakland & Habitat for  
Humanity East Bay / Silicon Valley*

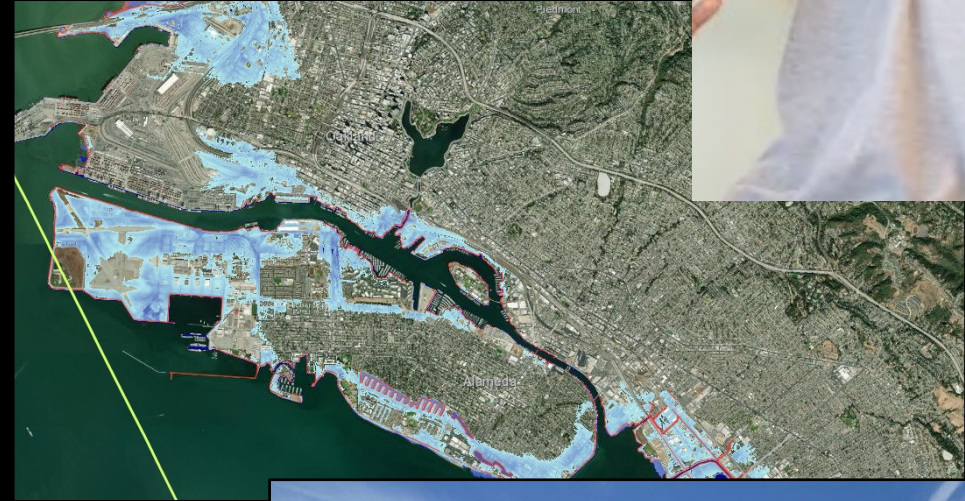


# Today's Agenda

---

1. Why Electrification
2. Key policies
3. Public Rehab Programs (City, Habitat)
4. Electrification & Building Performance: Scope & Approaches
5. Rebates & incentives
6. Training & Certification Opportunities

Learn more: [www.oaklandca.gov/projects/electrify](http://www.oaklandca.gov/projects/electrify)

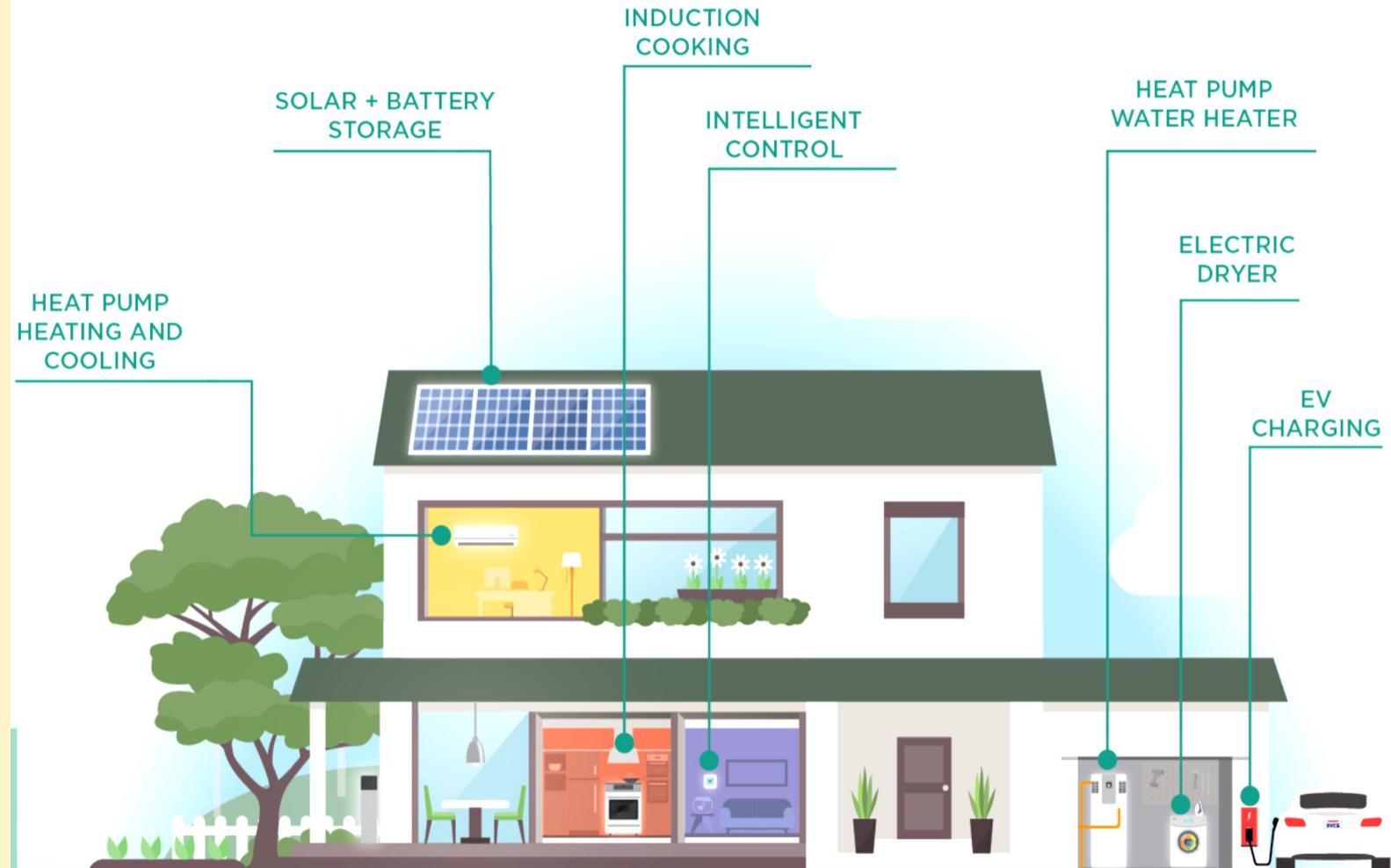


# Policy Mandate

- **City of Oakland:**
  - **Now:** All New Construction = All electric
  - **By 2040:** All buildings must be all electric
- **BAAQMD:** Sale of gas water heaters and gas furnaces prohibited as of 2027 & 2029
- **California:** Building codes promote efficiency & electrification and increasingly discourage gas

# Building Performance & Electrification

- Energy efficiency &
- Replace gas appliances with 100% electric &
- Improve air quality and comfort &
- Reduce environmental health risks &
- Affordable + reliable electricity



*Credit: Silicon Valley Clean Energy eHub*

# Residential Rehab Opportunity

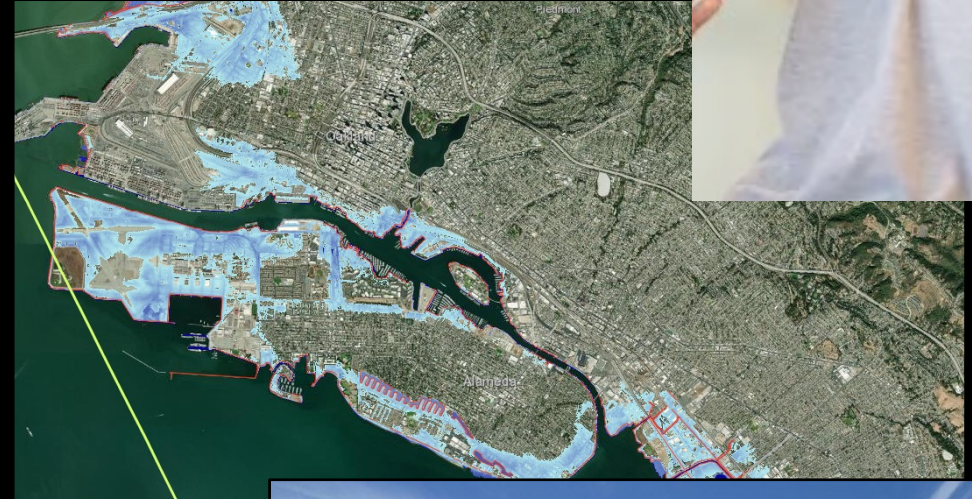
- **Residential Rehab programs:**
  - **City of Oakland:** Residential Lending Services
  - **Habitat for Humanity** East Bay / Silicon Valley
  - Rebuilding Together East Bay Network
  - Other cities: Berkeley, Hayward, Fremont
- **Traditional Mandate: Health, Safety, & Access**

# Agenda

---

1. Why Electrification
2. Key policies
3. Public Rehab Programs (City, Habitat)
4. Electrification & Building Performance: Scope & Approaches
- 5. Rebates & incentives**
6. Training & Certification Opportunities

Learn more: [www.oaklandca.gov/projects/electrify](http://www.oaklandca.gov/projects/electrify)



# Ava & BayREN: Critical Partners

- **Ava Community Energy**

- Induction Cooktop loaner program
- Commercial electrification grants
- Health-e Communities (coming soon)
- Base rate 5% lower than PG&E



- **BayREN**

- Home+ (1-4 units, up to \$5,000 in rebates)
- BAMBE (To date: 45k units @ 600 multifamily properties)
  - \$0 TA with AEA (Energy Survey Report, Scope)
  - Rebates: \$500 - \$6,000/unit (adders for health, heat, & housing burden, based on census tract)
- Bay Area Healthy Homes Initiative: \$1,000/unit for measures to improve IAQ in properties within 1,000 feet of major transportation source



# Federal and State Incentives

- Inflation Reduction Act (IRA) (2022)
  - 25C Tax Credits available now
  - Additional rebates on the way, likely in mid-2024
- TECH Clean California
  - **\$1,000 rebate** for heat pump HVAC
  - **\$3,100-\$10,385 rebate** for HPWH
  - Separate per-unit rebates for MUDs
  - **\$1,400** for Electrical Panel Upgrades
  - Contractor training & incentives

## 25C Tax Credit

For Qualified Electrification Upgrades

<b>Total Annual Credit</b>	<b>\$3,200</b>
----------------------------	----------------

Heat pumps and HPWHs	\$2,000
----------------------	---------

Other upgrades	\$1,200
----------------	---------

<b>Annual Credit for Heat Pumps and HPWHs</b>	<b>\$2,000</b>
---	----------------

Heat Pump	\$2,000
-----------	---------

HPWH	\$2,000
------	---------

<b>Annual Credit for Other Upgrades</b>	<b>\$1,200</b>
---	----------------

Insulation	\$1,200
------------	---------

Doors	\$500
-------	-------

Windows	\$600
---------	-------

Electrical panel	\$600
------------------	-------

Energy Audit	\$150
--------------	-------



# More Rebates & Incentives



**California Low Income Weatherization Program:** [www.csd.ca.gov/Pages/Low-Income-Weatherization-Program.aspx](http://www.csd.ca.gov/Pages/Low-Income-Weatherization-Program.aspx)

**Rising Sun Center for Opportunity:** [risingsunopp.org/programs/ghc/](http://risingsunopp.org/programs/ghc/)

**Grid Alternatives:** [gridalternatives.org/what-we-do/energy-for-all](http://gridalternatives.org/what-we-do/energy-for-all)

**California Energy-Smart Homes:** <https://www.caenergysmarthomes.com/alterations/>

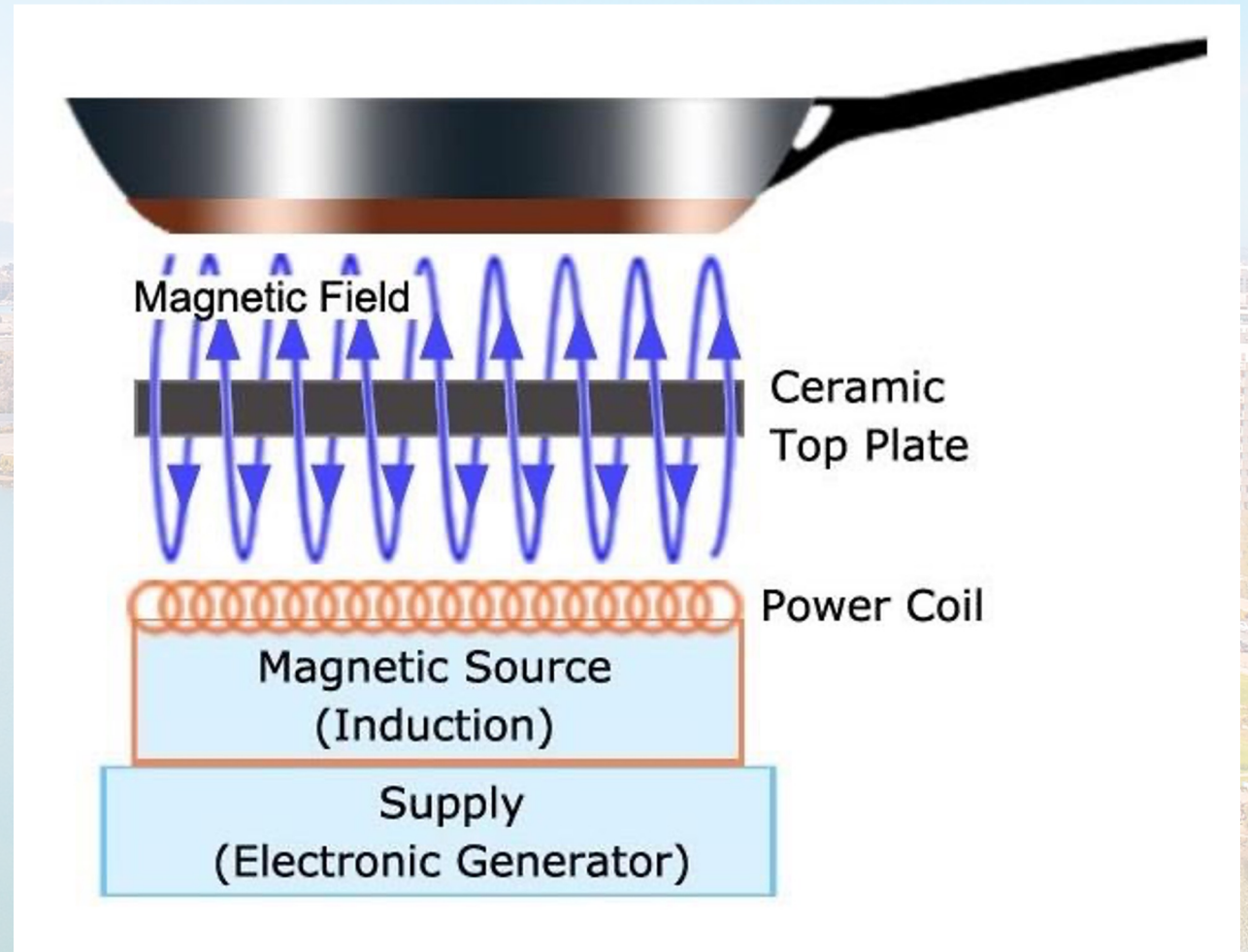
**PG&E:** <https://guide.pge.com/>

**\$1,000's available** for heat pumps, induction, electric dryers, insulation, & more! Stay up to date: [incentives.switchison.org/](http://incentives.switchison.org/). Track **Federal rebates & tax credits:**

[www.oaklandca.gov/topics/inflation-reduction-act-and-building-electrification](http://www.oaklandca.gov/topics/inflation-reduction-act-and-building-electrification)

# How does induction cooking work?

- **Electromagnetism** heats cookware directly
- Cookware must be able to carry a magnetic field (test with a magnet!)
- Ceramic top stays cool



# What is a heat pump?

- **Moves heat** rather than creating it.
- For space conditioning (heating + cooling) as well as water heating
- Up to 3x more efficient than gas furnaces/water heaters

