

# Electrification + Decarbonization Workforce Transition

Stakeholder Engagement Series: Part 2

June 2, 2021

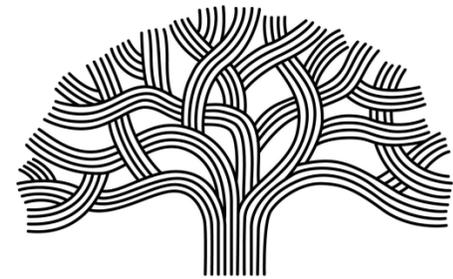




# Agenda

- 01 **Welcome and Introductions**
- 02 **Report Back from *Stakeholder Engagement Series: Part 1***
- 03 **Decarbonization in the Community Panel**
- 04 **Breakout Session + Report Back**
- 05 **Next Steps**

# Stakeholder Engagement Series Planning Team



CITY OF OAKLAND

City of Oakland

Sustainability Program

Economic + Workforce  
Development Department

Department of Transportation



Greenlining  
Institute



Rising Sun



Common Spark  
Consulting

## Equity in Electrification

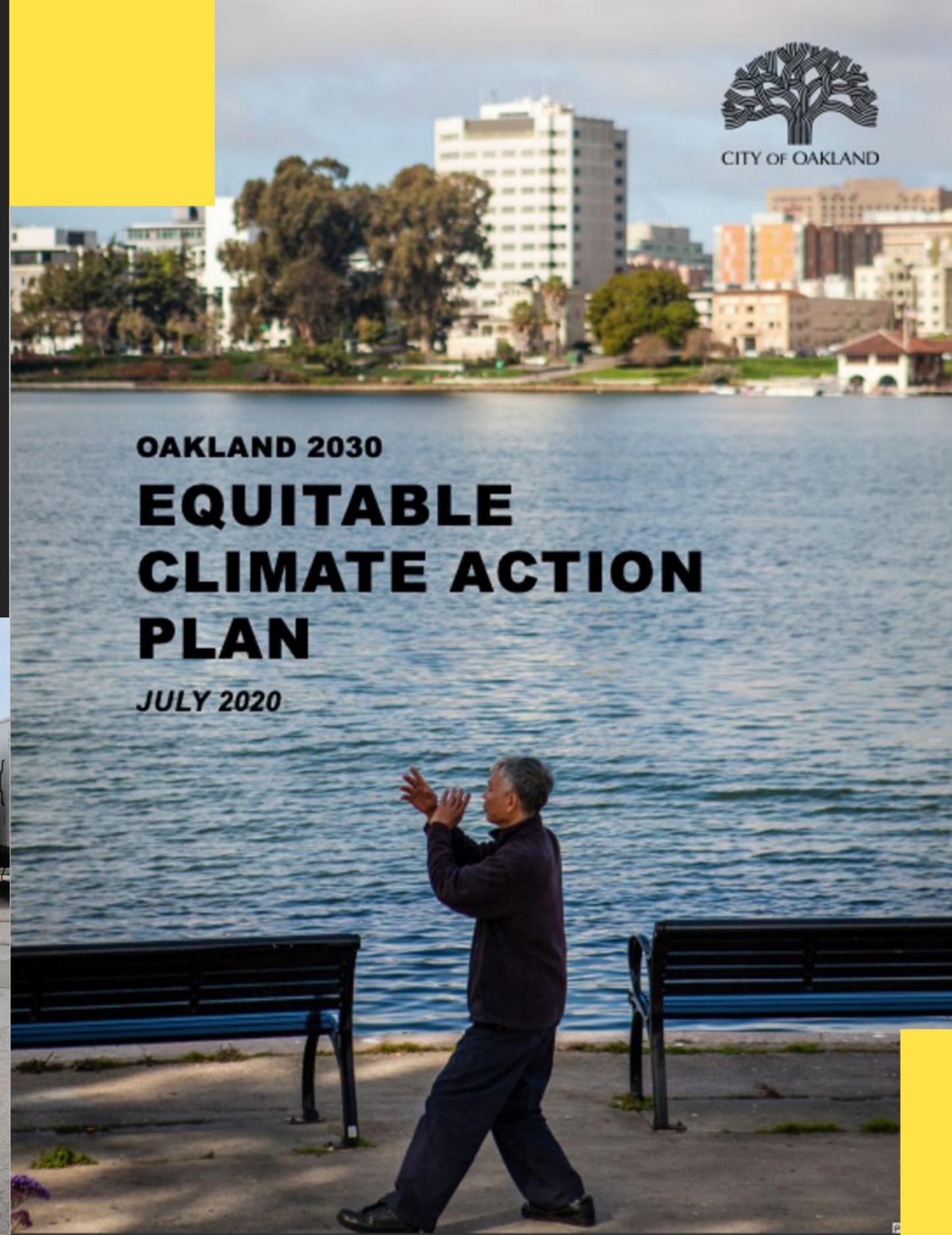
- Economic Security
- Housing Security
- Public Health
- Green Jobs



OAKLAND 2030

# EQUITABLE CLIMATE ACTION PLAN

JULY 2020



# Goals + Outcomes

01

## **COMMUNICATE TO COUNCIL + RESOURCE ALLOCATION**

To give City staff a better understanding of what's needed so City Staff can communicate it to Council, and so that when resources come available the City can support the Community appropriately according to the needs, and building on the resources, the Community identified.

02

## **NETWORKING TO SUPPORT COMMUNITY IDENTIFIED NEEDS**

To give community Stakeholders a platform to share with one another, their needs & resources, so that the community can be better connected (networked) around meeting the needs they are identifying, and those identified through EONI (East Oakland Neighborhood Initiative) and WOCAP (West Oakland Community Action Plan) related to green workforce development.

03

## **INFORMATION SHARING**

To share critical resources that validate and support electrification.

# Decarbonization Plan

How the knowledge from this series will inform the City's decarbonization plan moving forward:

## SHORT TERM

- **Zero Emission Vehicle Action Plan (early 2022)**
- Building electrification informational reports (Q2/3 2021)
- Plan for electrifying all existing buildings (Q4 2022)
- Economic Development Strategy Update (2021/2022)

## LONG TERM

- General Plan
- Equitable Climate Action Plan (ECAP) Updates



# Session 1 Recap

Stakeholder Engagement Series: Part 1

March 23, 2021



# Highlights

## **70+ PARTICIPANTS**

Training + vocational programs, contractors, labor organizations, public transit, shared and electric mobility companies, grassroots community organizations, goods movement, environmental and climate organizations, workforce development agencies, faith communities, and more

## **PRESENTATIONS + DISCUSSION**

Presentations from City staff + Rising Sun Center for Opportunity outlining context. Breakout discussions to gather top concerns/priorities for the series moving forward. Identified 8 core takeaway categories.



# Core Topics Identified

- 01 TRAINING**  
Access, understanding needs/gaps, cost, training to employment pathways, ongoing support for trainees
- 02 FUNDING**  
Sources funding this transition, what entities will distribute? What financial assurance is there for this work?
- 03 HOLISTIC SYSTEM TRANSITION**  
Broadening lens from narrow focus to include enabling policies and related industries that may be impacted/may support the transition, generating demand for the work, inform customers
- 04 INFORMATION SHARING/RESEARCH CONTEXT**  
What is the hard data backing this transition, what incentives and programs currently exist, how to learn from best practices of past attempts at green job development, infrastructure questions/concerns/technology needs
- 05 JOB QUALITY AND ACCESS**  
How to ensure equitable access to high road career positions, training, and opportunities
- 06 YOUTH/K-12 EDUCATION PATHWAYS**  
Leverage OUSD partnerships/programs to create pathways for students to enter trade training for green high workforce jobs
- 07 EMPLOYER CONCERNS + NEEDS**  
What are core needs on the employer side to ensure support in this transition. How to assist employers to help develop high road job positions to initiate demand for labor
- 08 PROCESS**  
Opportunities for participants to network; Civic engagement access + equity to influence policy catalyzing the transition; Meaningful participant outreach

**Did we  
capture your  
ideas and  
thoughts?**

# Decarbonization in the Community Panel



Bay Area Regional  
Energy Network  
(BayREN)

Jennifer West & Chris Hunter



East Bay  
Community  
Energy (EBCE)

Jessie Denver



Cypress Mandela  
Training Center

Eric Shanks

# Who is BayREN?



- Bay Area Regional Energy Network
- Collaboration of the 9 Bay Area Counties
- Funded by ratepayer dollars, overseen by the CPUC
- Energy efficiency programs including Single Family, Green Labeling, Multifamily

[BayREN.org](http://BayREN.org)



# Relevant BayREN Programs

Program	Primary audience	Workforce Development Component
<b>Home+</b>	Single-family homeowners	<ul style="list-style-type: none"> <li>• Network of participating contractors and energy raters; BayREN provides marketing support and access to trainings</li> <li>• Midstream HPWH incentive provides \$1,000 directly to contractors</li> </ul>
<b>Green Labeling</b>	Single-family homeowners, real estate professionals	<ul style="list-style-type: none"> <li>• Network of participating assessors; BayREN provides marketing support and access to trainings</li> <li>• BayREN sponsors trainings for real estate professionals</li> </ul>
<b>Bay Area Multifamily Building Enhancements (BAMBE)</b>	Multifamily property owners	<ul style="list-style-type: none"> <li>• No formal contractor participation agreement</li> <li>• Maintain list of MF contractors for referrals</li> <li>• Program incentivizes more comprehensive projects</li> </ul>
<b>Codes &amp; Standards (C&amp;S)</b>	Local government building dept. & planning staff	<ul style="list-style-type: none"> <li>• Trainings and resources for building professionals (designers, contractors, inspectors, etc) to promote code compliance</li> </ul>

# Funding for HPWHs and heat pump space heating

- \$1,000 each HPWH for residents (energy efficiency funds from BayREN Home + program)
- \$1,000 each HPWH from EBCE for contractors
- TECH Program (starting in 2021)  
**\$120 million over four years**
- Self Generation Incentive Program (starting in 2022)  
**\$44 million** for HPWHs as storage capacity

# BayREN HPWH Incentive Programs

## HEAT PUMP WATER HEATERS



# List of Incentive Programs

All of these incentive programs support the installation of Heat Pump Water Heaters (electric) to replace gas water heaters in existing buildings. They apply to single family homes, and some may also apply to single units in multifamily buildings. Please visit the program websites for more details and contact information. Some websites maintain lists of enrolled contractors/installers as a resource to you.

Program	Incentive Amount	Who Applies?	Eligible Customers	Qualifying Equipment	Website
BayREN Home+*	\$1,000	Customer or Contractor	Residents of all 9 Bay Area Counties (excluding Palo Alto residents)	UEF ≥3.1	<a href="http://bayrenresidential.org/get-rebates">bayrenresidential.org/get-rebates</a>
BayREN HPWH Contractor Incentive	\$1,000	Contractor**	MCE, EBCE, and CleanPowerSF Customers (Administered by BayREN)	UEF ≥3.1 and NEEA Tier 3 or above compliant	<a href="http://bayren.org/hpwh">bayren.org/hpwh</a>
City of Alameda	\$1,500	Customer	Alameda Municipal Power Residential Customers	ENERGY STAR® Certified	<a href="http://alameda.dsmtracker.com/shop/residential-rebates">alameda.dsmtracker.com/shop/residential-rebates</a>
Electrify Marin	\$1,000 +\$1,000 if income qualified	Customer	Residents of Marin County	UEF ≥3.0 and NEEA Tier 3 or above compliant	<a href="http://marincounty.org/depts/cd/divisions/sustainability/energy-programs/electrify">marincounty.org/depts/cd/divisions/sustainability/energy-programs/electrify</a>
Electrify San Jose Rebates	Up to \$2,000 (no panel upgrade needed); or \$4,500 (panel upgrade needed) limited by total project cost. +\$1,500 for CARE/FERA Customers	Customer	City of San Jose Residents	UEF ≥2.87 with grid connection capabilities & ENERGY STAR® certified. <i>Thermostatic Mixing Valve required with installation.</i>	<a href="http://sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/electrify-san-jos">sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/electrify-san-jos</a>
Future Fit	\$1,000 (replacing electric resistance); or \$2,000 (replacing natural gas) + \$1,500 if panel upgrade needed +\$1,500 for CARE/FERA customers	Customer	Silicon Valley Clean Energy Customers	UEF ≥2.9	<a href="http://svcleanenergy.org/water-heating">svcleanenergy.org/water-heating</a>
GridSavvy	\$700 +\$300 for CARE/FERA customers \$5/month bill credit for participating in demand response	Customer or Contractor	Sonoma Clean Power Customers	Rheem and AO Smith models (80 gal. and 50 gal. versions). See website. <i>Thermostatic Mixing Valve required with installation.</i>	<a href="http://sonomacleanpower.org/programs/gridsavvy">sonomacleanpower.org/programs/gridsavvy</a>
Palo Alto HPWH Program	\$1,500 for gas to ≥80 gal HPWH \$1,200 for gas to < 80 gal HPWH \$500 for electric to HPWH	Customer	Palo Alto Utility Customers	UEF ≥2.87 or ENERGY STAR® Certified HPWH	<a href="http://cityofpaloalto.org/gov/depts/utl/residents/save_energy_n_water/rebates">cityofpaloalto.org/gov/depts/utl/residents/save_energy_n_water/rebates</a>

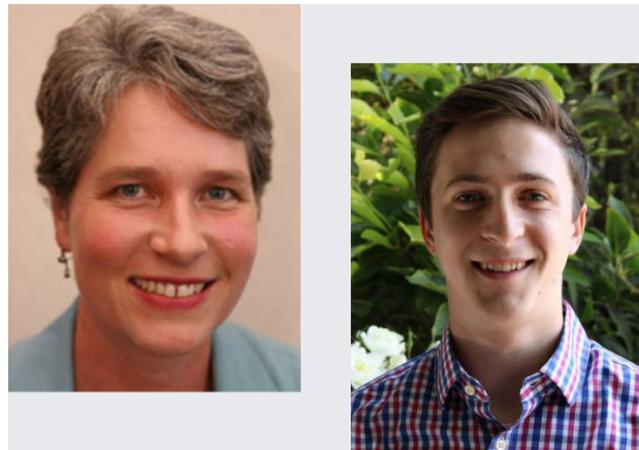
\*Can be layered with other BayREN/CCA-funded programs if project meets criteria for both programs

\*\*Application may be submitted through BayREN Home+

This list can be found at  
<https://www.bayren.org/hpwh>



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# ZEV Workforce Development

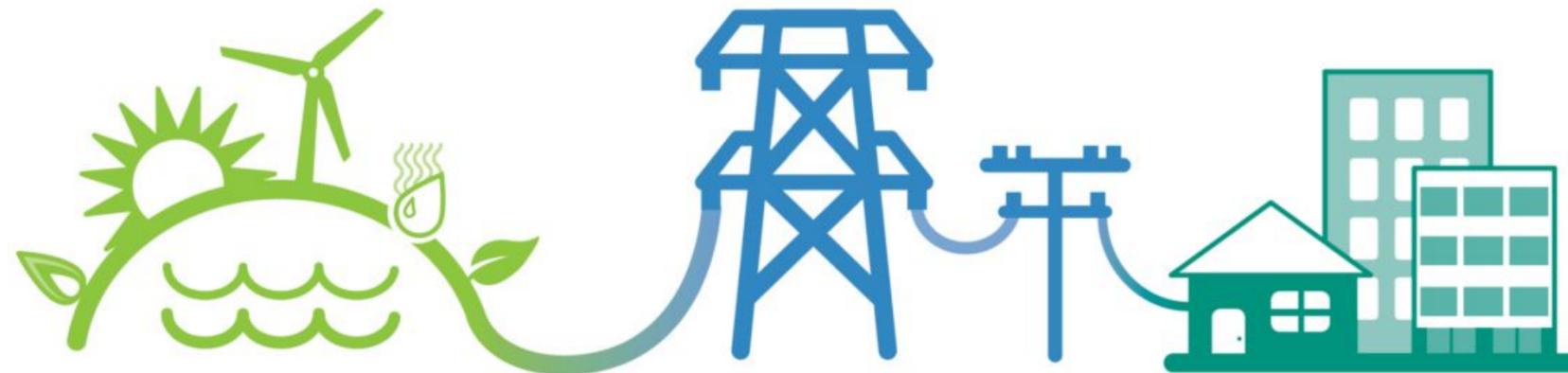
PRESENTED BY: J. Denver



# Who is EBCE?

## The East Bay's public power agency

- 2018: Alameda County + 11 cities formed EBCE's JPA
  - Not-for-profit public agency to provide electricity service
  - Residential, commercial, industrial and public customers
- Board of Directors = Local governance
- No shareholders = Community investments
- 2021 service area expansion: Newark, Pleasanton, Tracy
- How it works:



# Statewide Transportation Electrification Partnership: \$150B Opportunity



LACI

**TEP FEDERAL STIMULUS PROPOSAL**

CREATES

**2.3 U.S. MILLION JOBS**

ZERO EMISSION TRANSPORTATION

Learn more at [laci.org/tepstimulus](https://laci.org/tepstimulus)



LACI

**TEP FEDERAL STIMULUS PROPOSAL**

CREATES

**370,000 JOBS** for California

ZERO EMISSION TRANSPORTATION

Learn more at [laci.org/tepstimulus](https://laci.org/tepstimulus)

- Today there about 70,000 ZEV jobs in California (CALSTART)
- Alameda and Santa Clara counties lead the state in ZEV jobs, with Los Angeles County in 3rd.

# Training Considerations

## Core Skills:

- High voltage electrical skills
- Understanding of how battery management systems work
- Maintain basic mechanical systems (e.g., suspension, HVAC)
- Work w/electrical circuits, H2
- Various manufacturing
- Utility-side and BTM upgrades
- Charging infrastructure: customer service, engineering/design, O&M

## Educational Institutions:

- Students need more electrical proficiency than currently provided
- Need vehicles and training aids for hands-on lab activities (proprietary tech maybe issue)
- EV technicians in high demand and can work across L/M/HD vehicles
- Must train new workers & upskill training for existing workers (busy schedules)



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# Cypress Mandela

## Programs Overview



### Core Training Programs

- 16-week Program – Pre-Apprenticeship Green Construction
- 8-week (Environmental Protection Agency – EPA Funded) Environmental Health and Safety Program

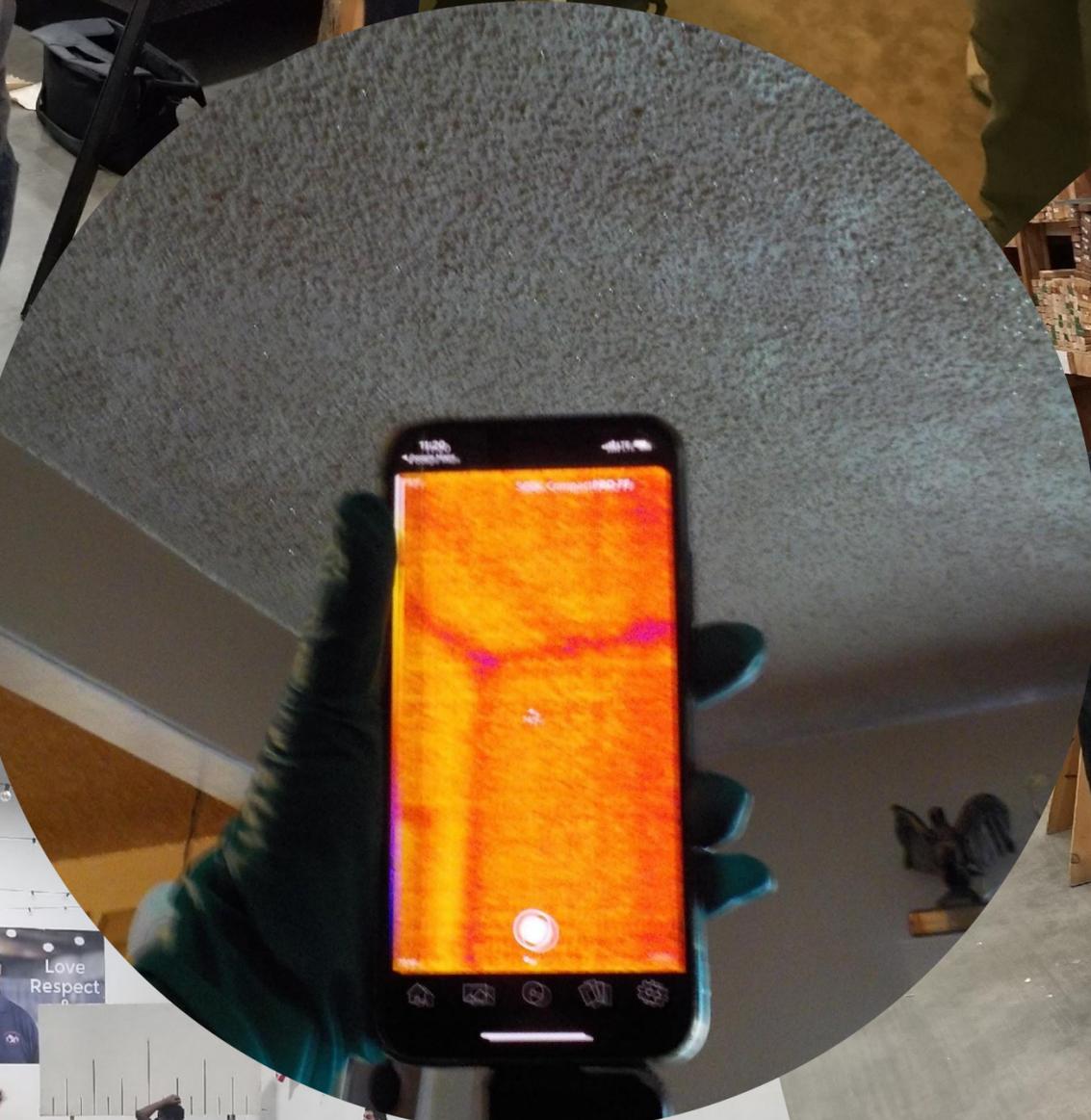
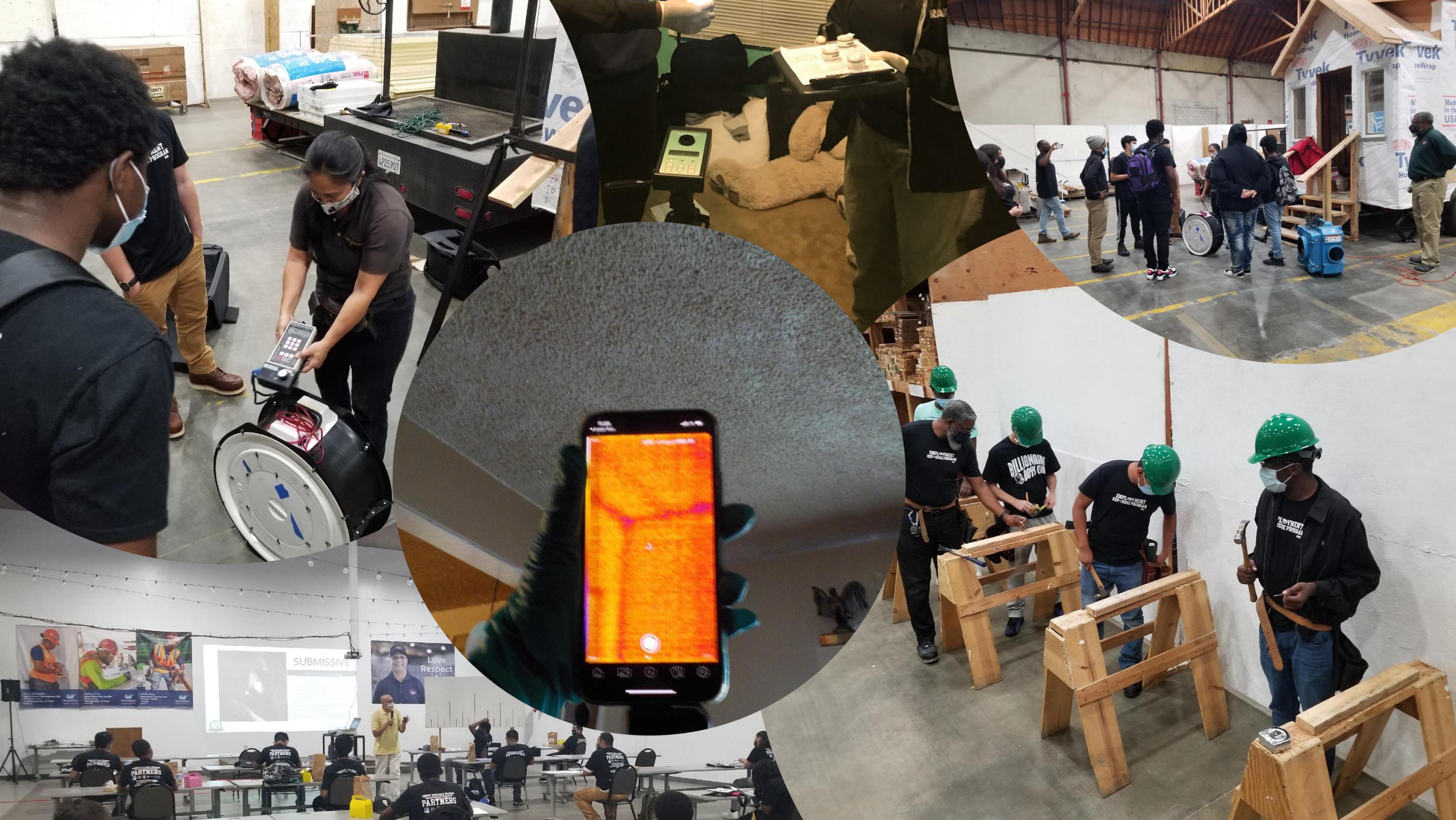
### Specialized Training Programs

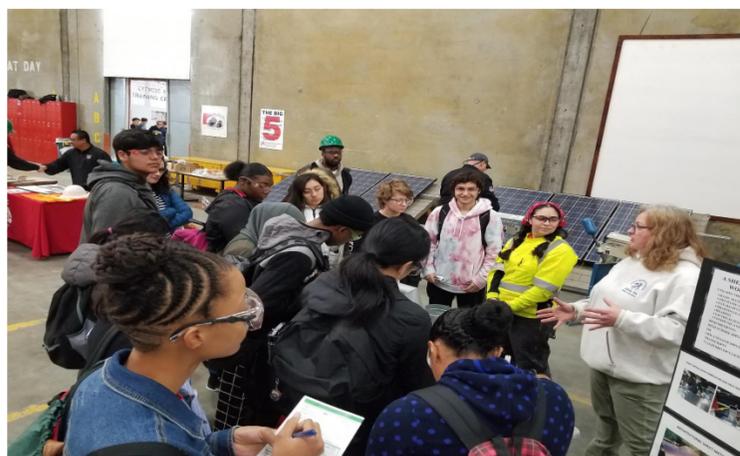
- 8/12-week Energy & Water Efficiency Training Program
- 12-week ‘I Can Fix It Myself’ Program
- 5-week OUSD Construction Summer Internship Training Program
- 6-week Oakland PAL Construction Exploration Training Program

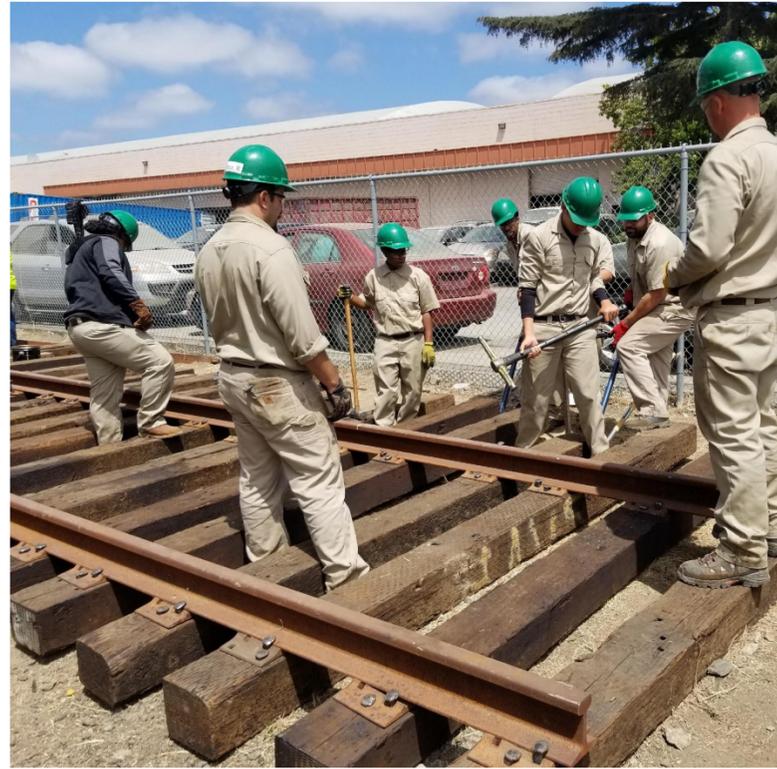
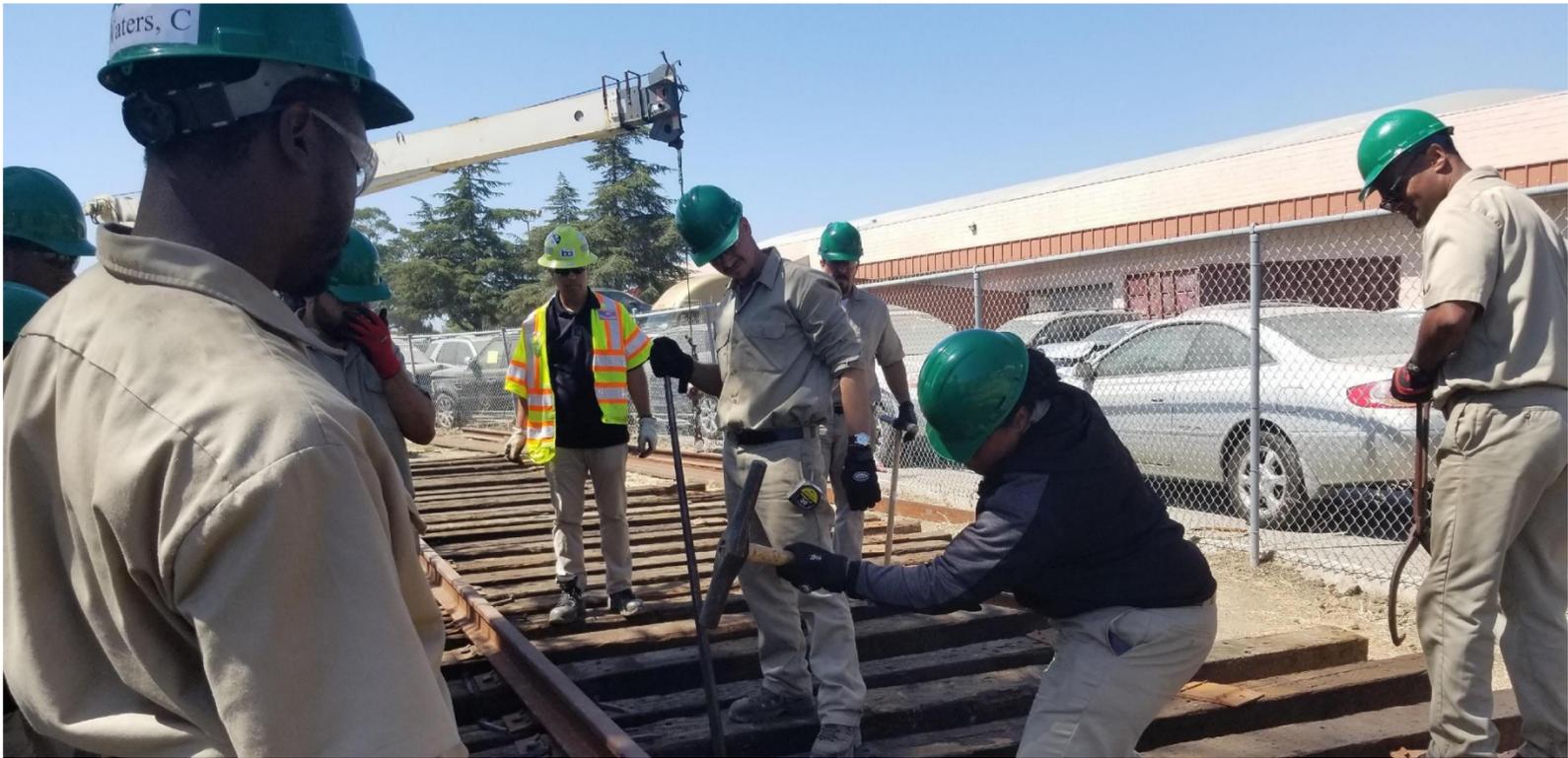
### Advanced Training Programs

- 8-week Cypress PG&E PowerPathways Program
- 1-week Bay Area Rapid Transit (BART) - Pathway Training Program











**Graduate working on Linesmen Crew in West Oakland**

# Breakout Sessions

## Key Questions to Consider

What are your initial reactions?

What gaps might you see in translating goals into local employment and wealth-building opportunities?

Who would you want to see in the next part of the series, a panel discussion?

What would you like to be discussed in the next session?

What questions, comments or concerns do you have?



# Breakout Report Back

What we heard in the breakouts from  
you

# Recap of Today's Session

What we heard today, what we  
accomplished together



# Next Steps

## Stakeholder Engagement Series Part 3

This session will occur in mid-July/August and will host a panel of community stakeholders to discuss relevant issues that were brought up in this meeting.



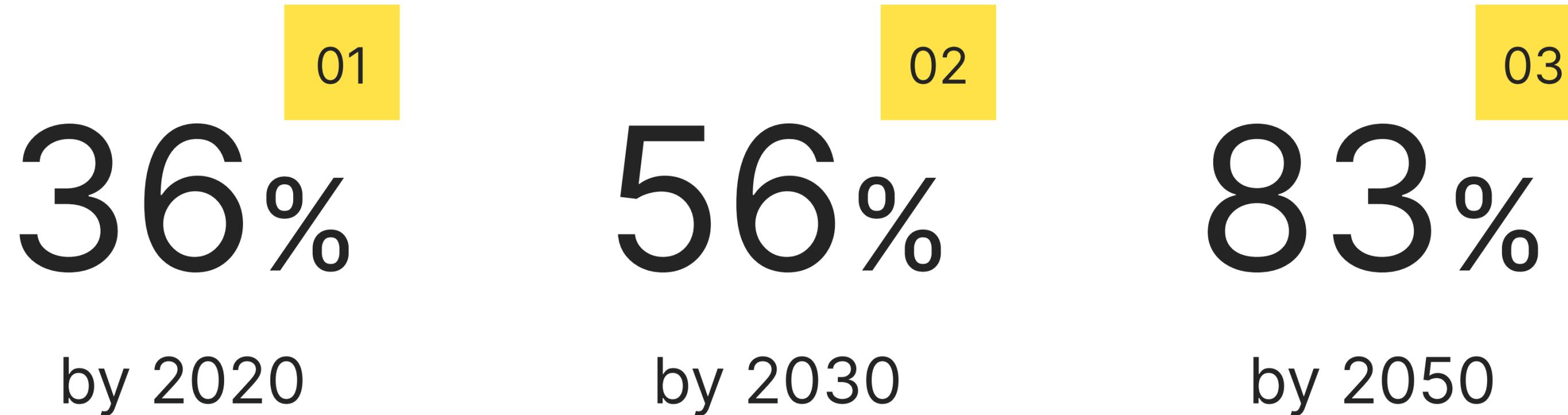
# Thank you!

We appreciate your time, effort, perspective and sharing!

Thank you for being here!



# Oakland's Decarbonization Goals



OAKLAND'S GREENHOUSE GAS EMISSIONS REDUCTION TARGETS COMPARED TO 2005 CITY GHG EMISSIONS INVENTORY

# Equity in Electrification

Economic Security

Housing Security

Public Health

Green Jobs



# Initiating the Transition



## New Construction Building Electrification Ordinance

**PASSED DEC, 2020**

Reach code ensuring that all new buildings are all electric, phasing out natural gas infrastructure from new building stock (Action B-1)



## All Existing Buildings Electrification

**ROADMAP BY 2022, ALL BUILDINGS ELECTRIFIED 2040**

Plan to electrify all existing building stock, without additional cost burden or displacement risk to frontline communities (Action B-2)



## Zero Emission Vehicle Action Plan (ZEVAP)

**COMPLETED BY 2021**

Develop ZEVAP to increase adoption of electric vehicles and e-mobility. Sets ambitious targets for ZEV infrastructure and coordinate with other land use and mobility options (Action TLU-5)