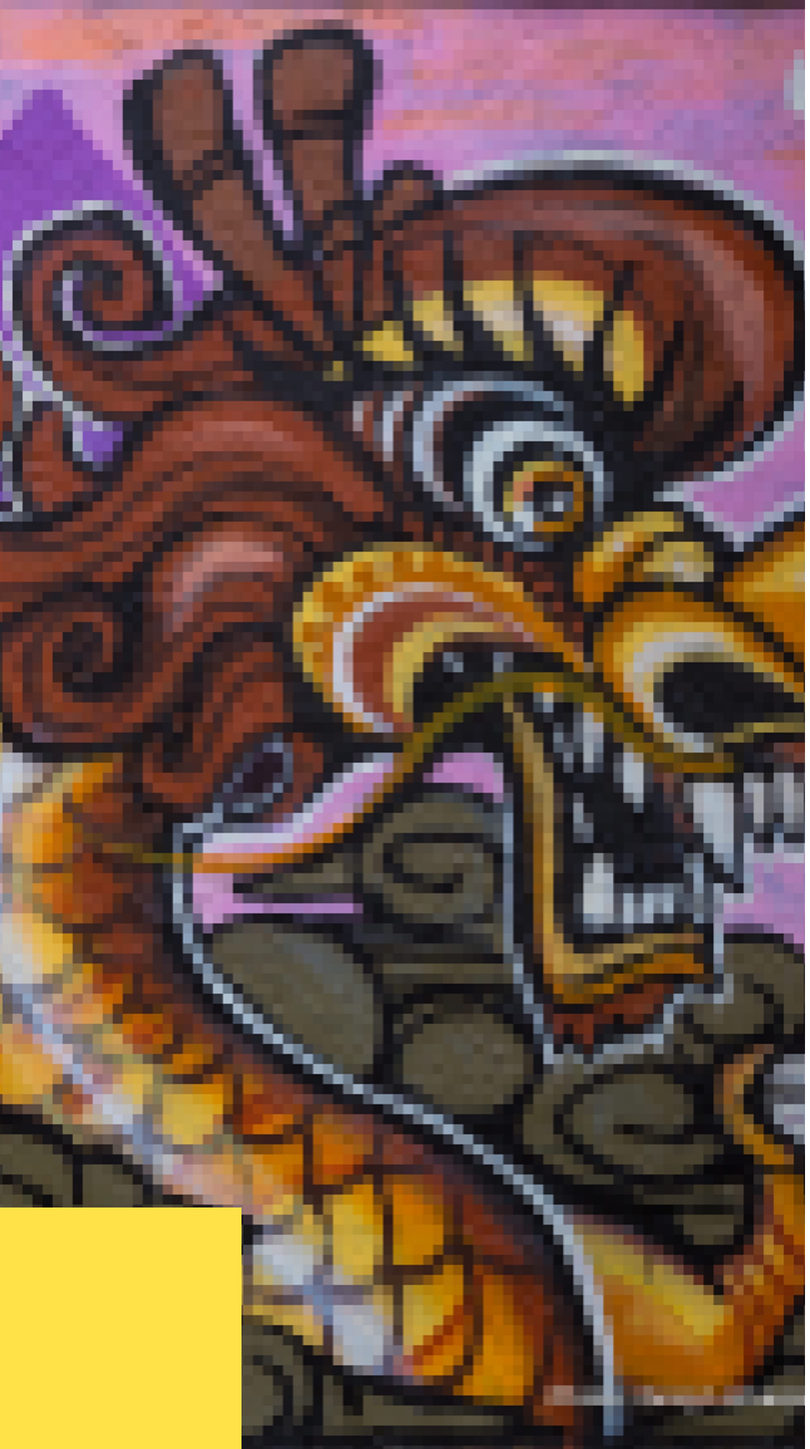
Workforce Perspectives in Decarb

Stakeholder Engagement Series: Part 3

August 10, 2021



Agenda

01 Welcome and Introductions

02 Workers of Decarb Panel

03 Break

04 Recruiting for Decarb Panel

05 What to Expect Next

Stakeholder Engagement Series Planning Team

City of Oakland

Sustainability Program

Economic + Workforce Development Department

Department of Transportation

Greenlining Institute

Rising Sun

Common Spark Consulting

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

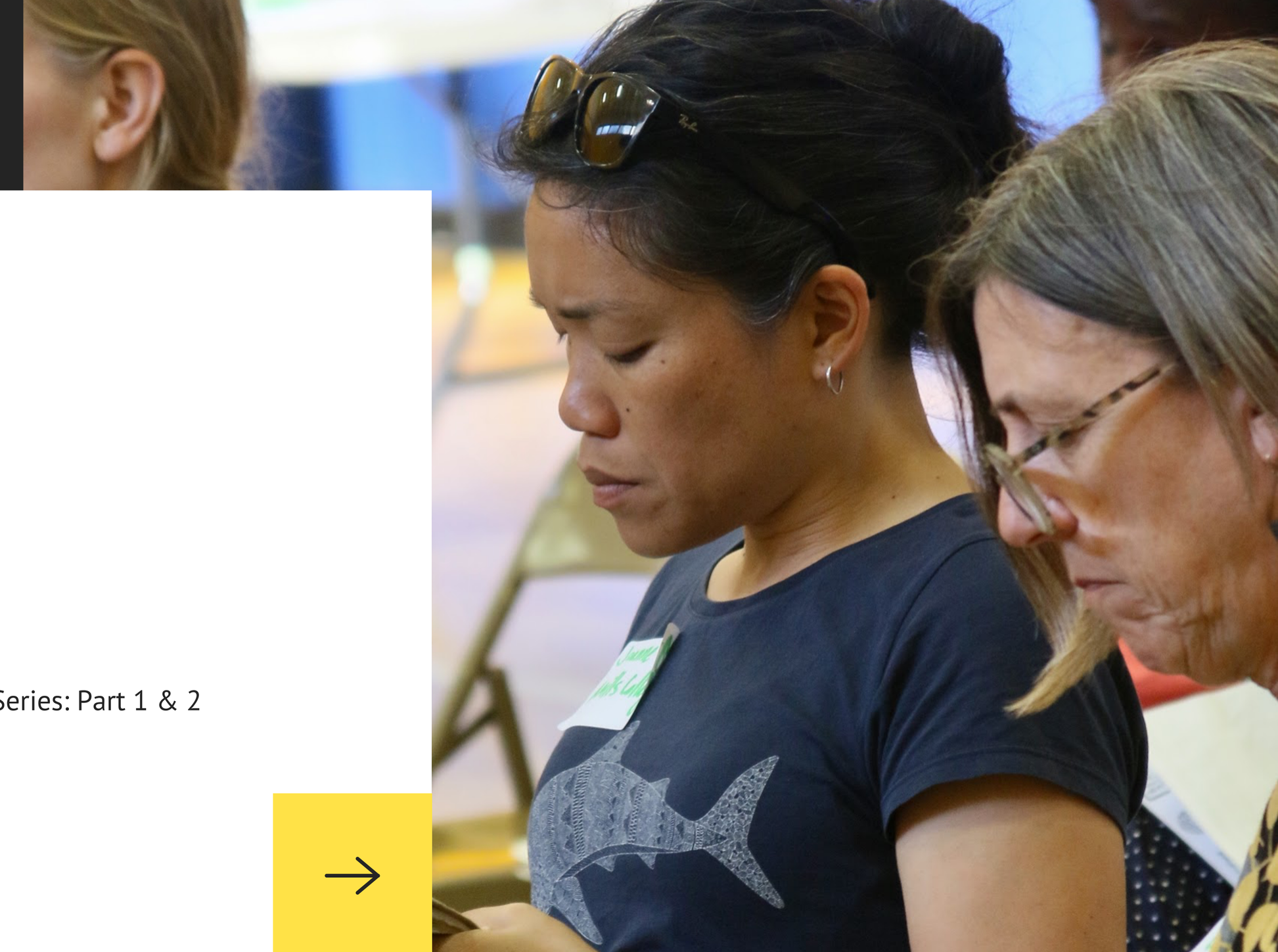
INFORMATION SHARING

To share critical resources that validate and support electrification.

Recap

Stakeholder Engagement Series: Part 1 & 2

March 23, 2021, June 2, 2021



Highlights

70+ PARTICIPANTS IN BOTH SESSIONS

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

- **Session 1:** Presentations from City staff + Rising Sun Center for Opportunity outlining context. Identified 8 core takeaway categories.
- **Session 2:** Presentations by BayREN, EBCE, and Cypress Mandela Training Center. Identified needs for future sessions

Slido

We are using the Slido platform to crowd-source a short Q&A session for our panelists.

1. Log in on any device to **www.slido.com**
2. Enter code: **#decarb**
3. Engage!

STAKEHOLDER ENGAGEMENT SERIES: PART 3

Workers of Decarb Panel

A community-informed panel to discuss the challenges, skills, opportunities, and diversity in electrification and decarbonization from a workers' perspective

Mick Penn

MPA, CCA, Northern California Regional Community Relations Liaison at Swinerton

Board of Directors at Cypress Mandela Training Center

Alex Lantsberg

MCP, Research & Advocacy Director at San Francisco Electrical Construction Industry

Keith O'Hara

President and CEO of ECO Performance Builders

Paul Francis

CEO and Co-Founder at KIGT

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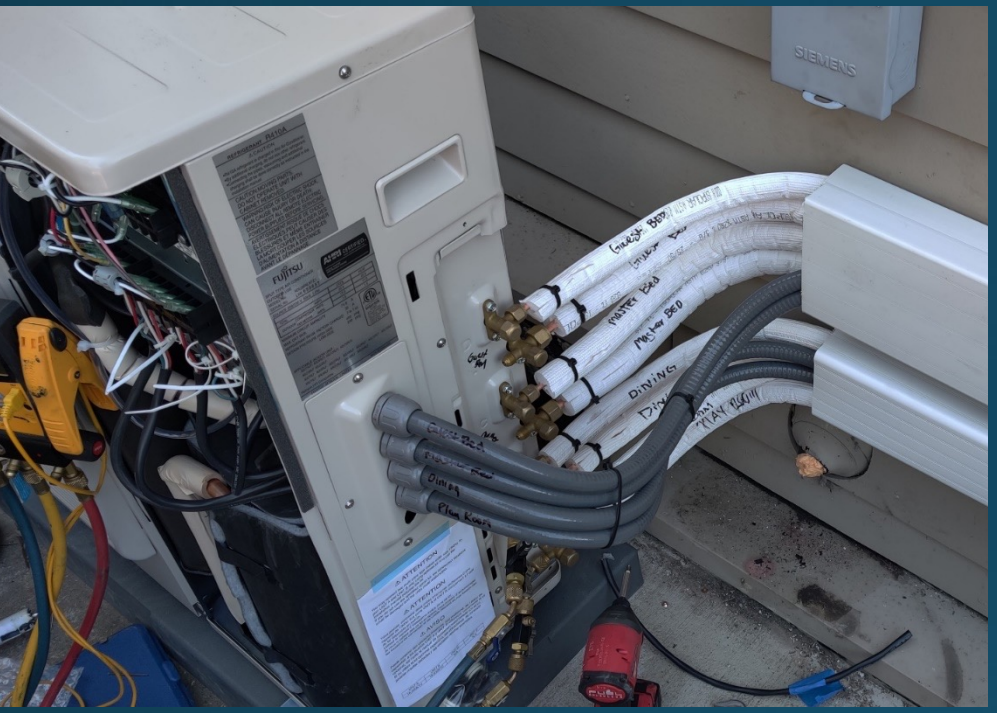
Keith O'Hara

- Eco Performance Builders
- Home Performance all electric retrofits
- General, HVAC, and Insulation contractor
- Design/Build/Commission

Heat Pumps

The Work

The Work



Commissioning HVAC Systems

Supply Airflows (use only Energy Conservatory FlowBlaster)	Temp (F)	CFM	Flow Correction	Constant	Delta T	Calculation	Btu/Hr	
Supply Grille #1 Room:	51.5	143.0	1.01	1.08	20.5	Delta SG1 -Weighted Return Temp	3208	BtuH (delta
Supply Grille #2 Room:	50.5	134.0	1.01	1.08	21.5	Delta SG2 -Weighted Return Temp	3153	BtuH (delta
Supply Grille #3 Room:	53.0	96.0	1.01	1.08	19.0	Delta SG3 -Weighted Return Temp	1992	BtuH (delta
Supply Grille #4 Room:	52.0	113.0	1.01	1.08	20.0	Delta SG4 -Weighted Return Temp	2468	BtuH (delta
Supply Grille #5 Room:				1.08		Delta SG5 -Weighted Return Temp		BtuH (delta
Supply Grille #6 Room:				1.08		Delta SG6 -Weighted Return Temp		BtuH (delta
Supply Grille #7 Room:				1.08		Delta SG7 -Weighted Return Temp		BtuH (delta
Supply Airflow (continued from page 1)	Temp (F)	CFM	Flow Correction					
Supply Grille #8 Room:				1.08		Delta SG8 -Weighted Return Temp		BtuH (delta
Supply Grille #9 Room:				1.08		Delta SG9 -Weighted Return Temp		BtuH (delta
Supply Grille #10 Room:				1.08		Delta SG10 -Weighted Return Temp		BtuH (delta
Supply Grille #11 Room:				1.08		Delta SG11 -Weighted Return Temp		BtuH (delta
Supply Grille #12 Room:				1.08		Delta SG12 -Weighted Return Temp		BtuH (delta
Totals		486.0	**CFM Total (Indicated airflow)**				10820	**Total Btu/**

Total Delivered BtuH as measured at supply grilles	10820	BtuH (1)					
Heat Pump Capacity at test condition -or- Sum of furnace rated output & (Furnace Fan Watts × 3.4)	12110	BtuH (2)	Gas furnace tests- Calculate % Sensible Delivered energy and leave EER sections blank				
Total Delivered BtuH(1) ÷ by capacity BtuH(2)	89%	% Sensible Delivered energy	Manuf. EER		Measured System Power	Delivered EER	
Manufacturer System Power at test condition (indoor + outdoor) AC & Heat Pumps only	930	Watts =	13.0	Manuf capacity divided by kW (x1000)	960	Measured System Pwr (Watts) =	11.3
Delivered EER divided by Manufacturer EER	86.6%	% Sensible Delivered EER					

Room temperature stratification testing at 3' AFF, center of all rooms All temps after continuous minimum 15 minutes of system operation, system running, all doors open				
#1 Room:	71.0	(F)		Pascals across door

Measure all exhaust flows and mark type and whether con

7)	Ventilation Location	CFM Flow	Supply or E
#1 Room:	Up Bath	116	exh / conti
#2 Room:			

What will employees learn at EPB?

Home Performance is a **SCIENCE** that treats the home as a system.

High performance home retrofits involve advanced heat pump, ventilation, air barrier, insulation and water heating systems.

What will employees learn at EPB?

Hands-on trade skills:

- High performance mechanical system installation and commissioning
- High performance duct system installation and commissioning
- Electrical
- Water heater installation and commissioning.
- Air Sealing
- Attic Insulation
- Ventilation

Training

Training

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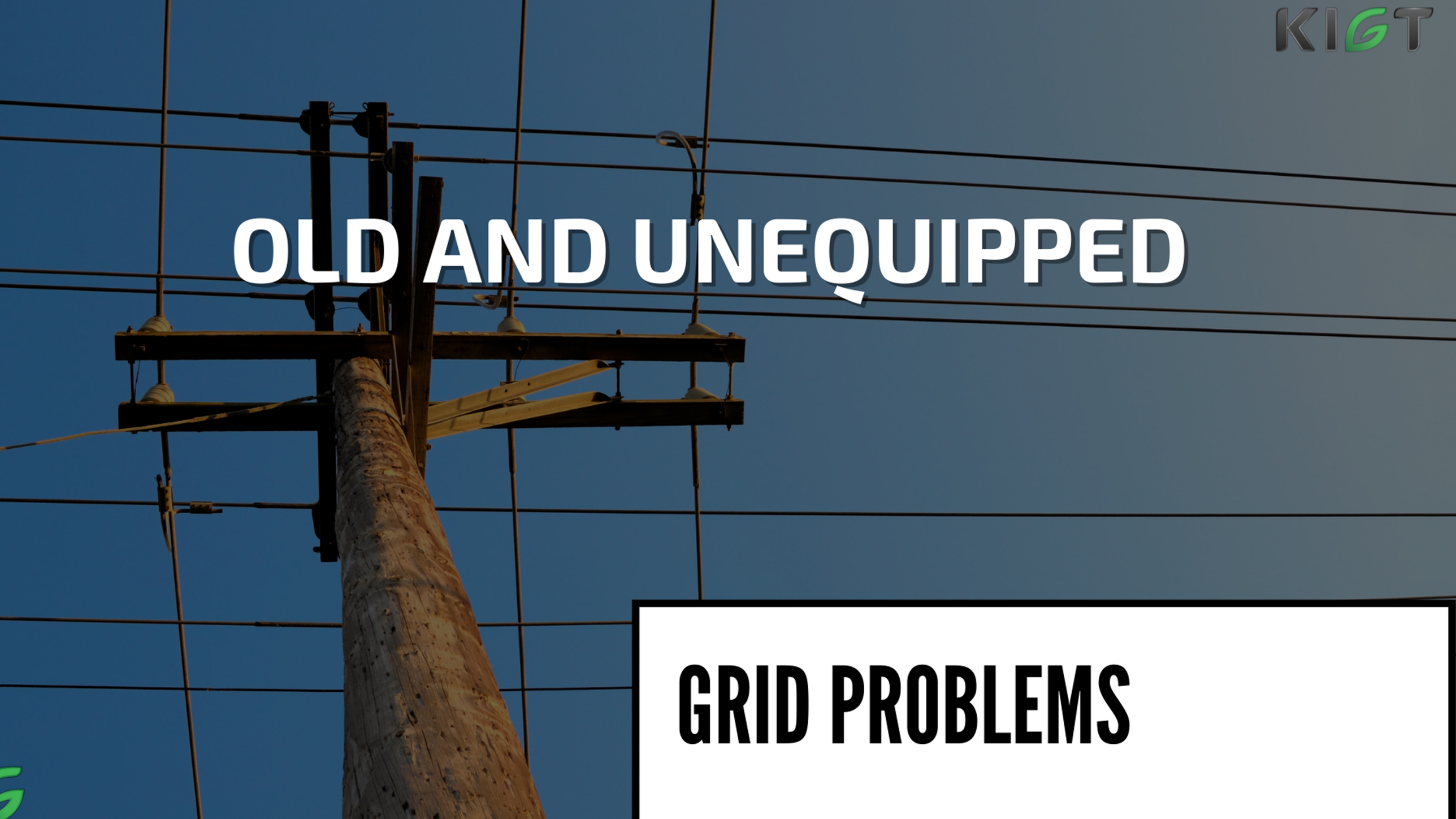
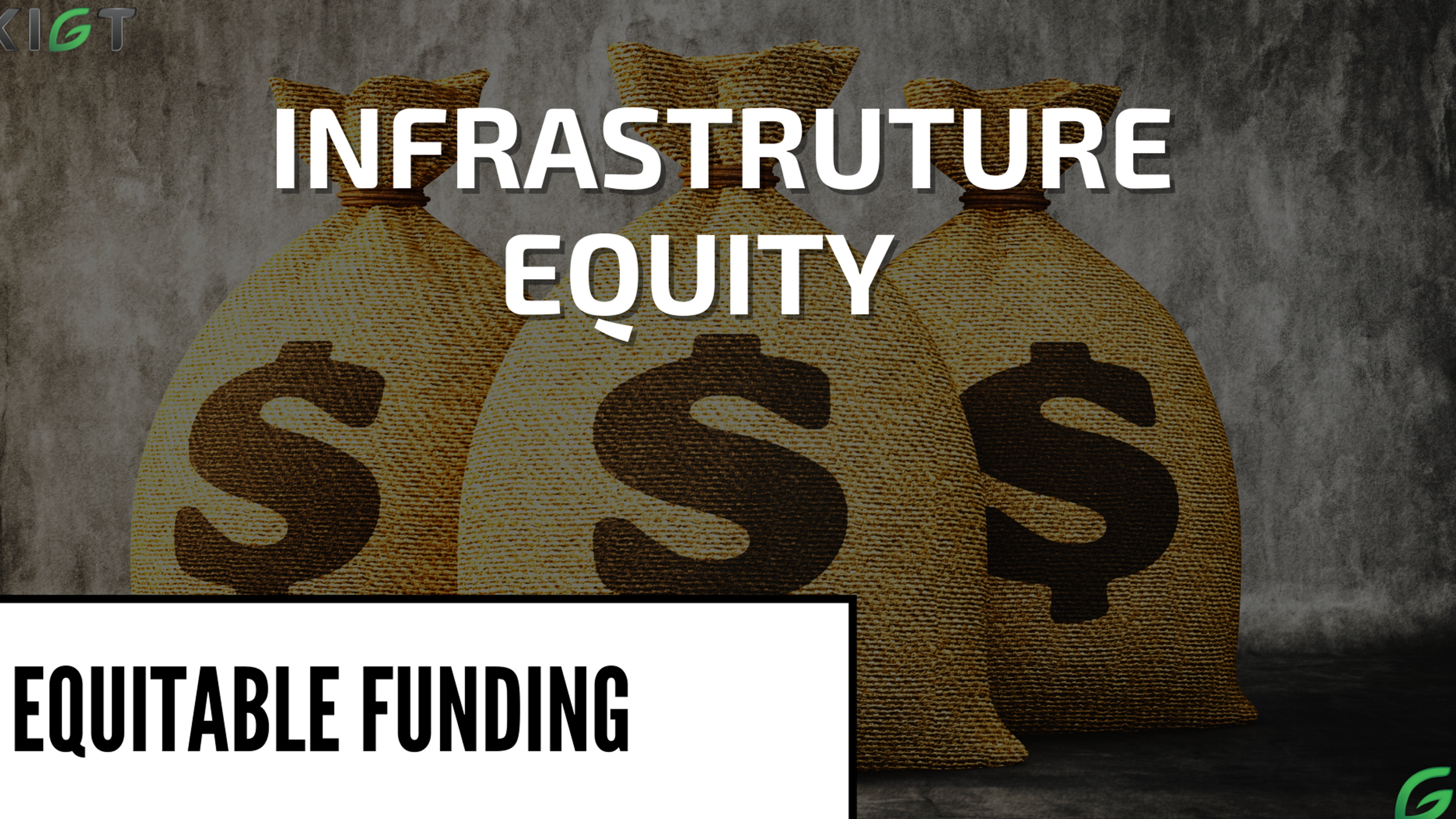


GRID PROBLEMS



EQUITABLE FUNDING

JOBS AND OWNERSHIP

GREEN JOBS

WORKFORCE

GREEN JOBS

KIGT

MANUFACTURING

TRAINING

EDUCATION

STEM INTERNSHIPS

TEAMWORK MAKES THE DREAM WORK

Q&A

Workers of Decarb Panel

NorCal NECA

The Northern California Chapter of the National Electrical Contractors Association serves the Electrical Contracting Industry in Alameda, Calaveras, Mariposa, Merced, Napa, San Joaquin, Solano, Stanislaus and Tuolumne Counties.

Jenny Fothergill

Alameda County Business Developer, NorCAl NECA

Greg Armstrong

Executive Director, NorCal NECA

Stretch Break

Please join us back in 3 minutes

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MS, Program Manager for Building Electrification and Energy Efficiency at EBCE

Stephen Gribble

Project Manager at Association at Energy Affordability (AEA)

Julina Bollina

Workforce Development Manager at Port of Oakland

Tony Sciarra

Workforce Development and Educational Programs at Tesla

AUGUST 2021

Employers in Decarbonization

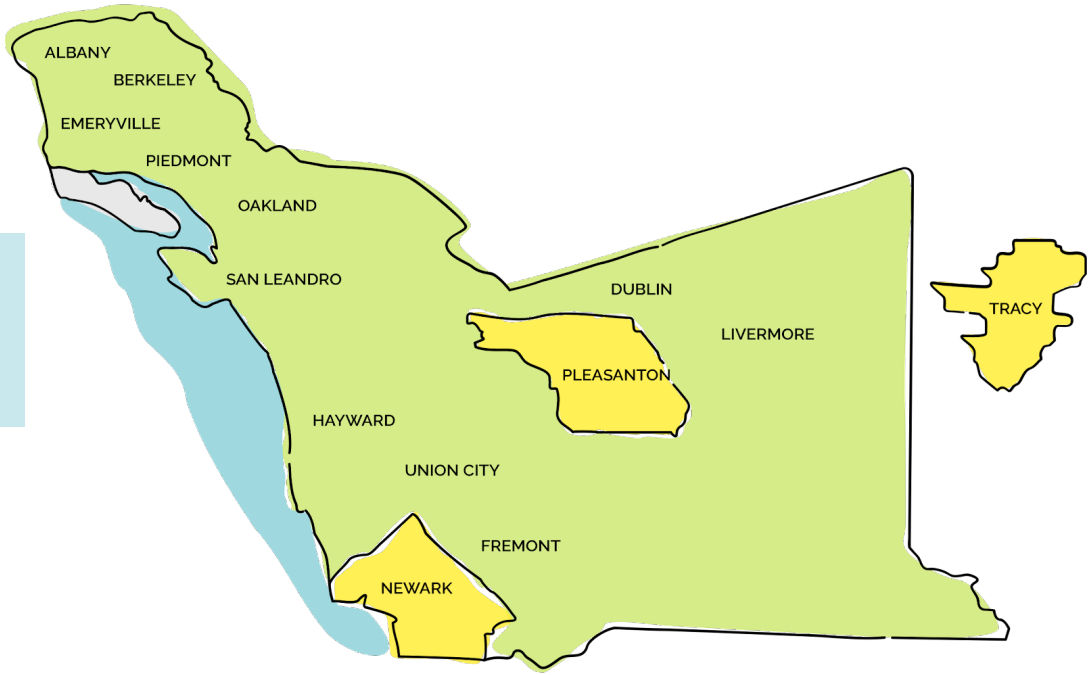
EAST BAY COMMUNITY ENERGY

East Bay Community Energy

630k Customers

$8 Million Customer Bill Savings

59.9% RPS compliant



550 MW wind / solar
150 MW battery storage

EAST BAY COMMUNITY ENERGY

Opportunity

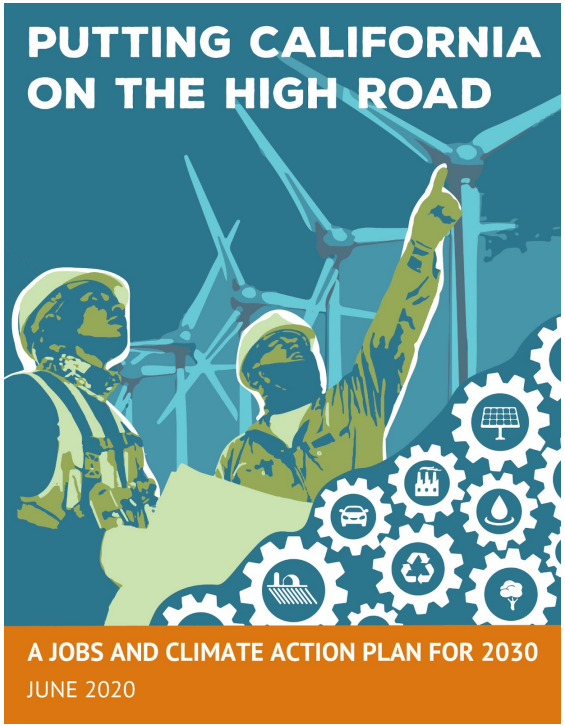
- 100% carbon free by 2050 (California)
- 56% reduction over 2005 levels by 2030; 83% reduction by 2050 (Oakland E-CAP)
- 100% carbon free electricity by 2030 (EBCE)
- Local Reach Code development
- Scale of investment upcoming
  - SB 1477: $150M for three years
  - SGIP: $166M per year
  - EE: $625M SW budget
  - EVSE : Infrastructure bill, CalEViP

$72-150B Investment Required

EAST BAY COMMUNITY ENERGY

Challenges / Lessons Learned

- Jobs in the green economy are multi-faceted
  - Construction, engineering, electricians
- Training only to niche “green” skill sets has proven ineffective in the past
- More engagement is needed from industry to inform desired skills
- “Just transition” programs have faced challenges in the past
- Special focus is needed for disadvantaged workers



EAST BAY COMMUNITY ENERGY

Thank You!

Questions? Give us a call:

1-833-699-EBCE (3223)

@PoweredbyEBCE

customer-support@ebce.org

Español
ebce.org/es

中文
ebce.org/cn

EAST BAY COMMUNITY ENERGY

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Oakland Just Transition Series

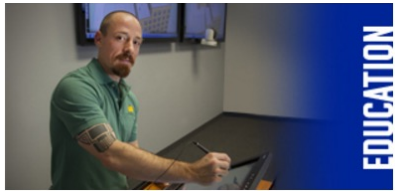
ASSOCIATION FOR ENERGY AFFORDABILITY INC.

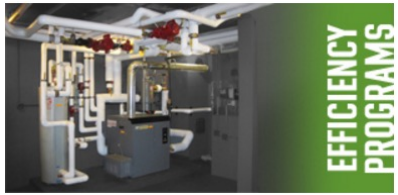
Energy Efficiency is our Specialty, Affordable Housing is our Priority

The Association for Energy Affordability, Inc. is dedicated to achieving energy efficiency in new and existing buildings in order to foster and maintain affordable and healthy housing and communities, especially those of low-income.

With locations in NY and CA, AEA representatives engage in a broad range of educational, technical and construction management activities and services to promote this mission and develop the industry that advances and sustains it.

- Energy Audits and Green Building Design for New Construction and Existing Buildings
- Energy Efficiency and Electrification Program Design and Implementation
- Provider of Weatherization Assistance Program Services
- National Weatherization Training Center





MCE Workforce Education and Training Program (WE&T)

Job Seekers

- Paid Internships
- Training

Energy Contractors

- Roundtables
- Ride-Alongs
- Workshops

Energy Efficiency and Renewable Energy Projects

MCE WE&T: Paid On the Job Training

Paid Internships

- Paid on-the-job training
- 160 hours of program paid time with a new career opportunity and the goal of being hired full-time
- Help with preparing for a career in electrification or home performance
- Wrap-around services to help ensure success at

MCE WE&T: Job Opportunities

We Learned a Lot Developing the Program

And We've Learned a Lot Running it

Thank You

Stephen Gribble, Association for Energy Affordability
Sgribble@aea.us.org

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PORT OF OAKLAND

SOCIAL RESPONSIBILITY DIVISION

Everyone's Port

City of Oakland

Decarbonization Workforce Development Stakeholder Engagement Series

August 10, 2021

PORT OF OAKLAND

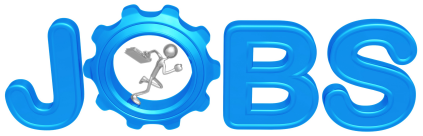
Social Responsibility Division Mission

Deliver a Port that is an effective and committed corporate citizen and strong economic driver for the region by delivering maximum social and economic impact

PORT OF OAKLAND

Social Responsibility Division Goals

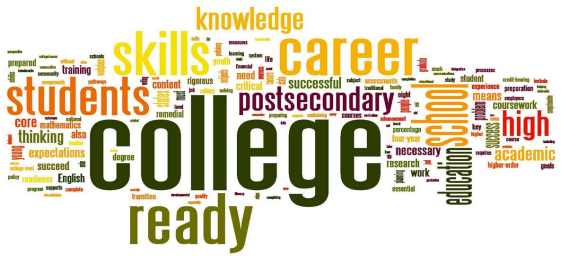
Local Employment



Local Business Utilization

Fair Wages

Job Readiness



Workforce Development

Investment, Engagement & Benefits

Nurture a Port-Wide Culture of Social Responsibility

Social Responsibility Equity Initiatives

Public Engagement Plan	Maritime Aviation Project Labor Agreement (MAPLA)	Operations Jobs Policy	Local Business Utilization	First Source – Fair Chance Hiring Program

Accountability & Broad-based Oversight

Community-wide Input & Accountability	Roles & Responsibilities Defined = Local Jobs Community Economic Development	Community/Port Monitoring & Implementation Guidance

Seaport Emission Sources

Ships

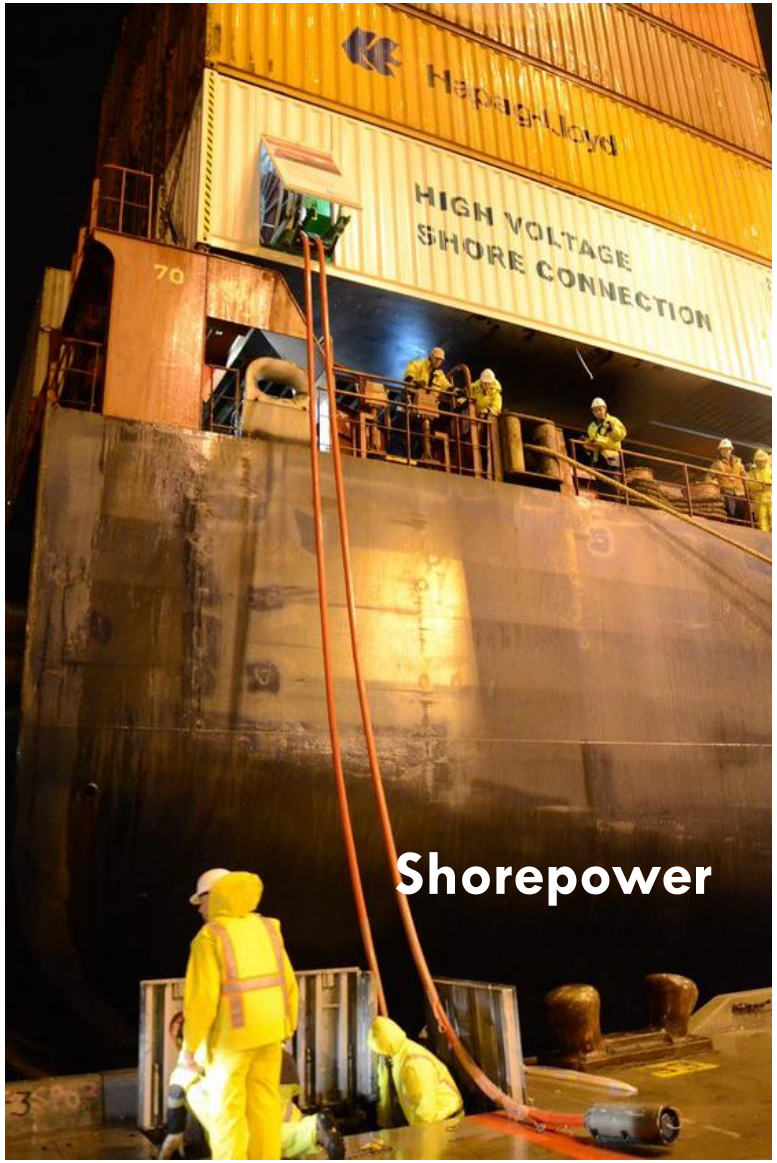

Cargo Handling Equipment


Drayage Trucks

Tugboats

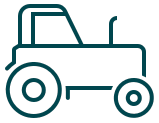
Rail

Projects Completed or Underway



Financial Aspects of Air Quality 2020 & Beyond Plan Pathway to Zero Emissions

- Plan Implementation requires participation, coordination, collaboration, and financial commitment from all stakeholders
- Potential areas for equipment and infrastructure investments:



CHE
386+

Port
Vehicles
228+

Drayage
Trucks
6,000+

Electric
Charging
Stations

Hydrogen
Fueling
Stations

Retrofit
Vessels
for Shore
Power

Shore
Power
Outlets

Electric
Infrastructure

- Financial costs are significant, will be borne by different entities, and depend on availability of funds
- Majority of funding for the Near-Term phase will be from Port unrestricted and restricted Cash

Questions & Answers

Amy Tharpe
atharpe@portoakland.com
510.627.1302
www.portofoakland.com

Julina Bonilla
jbonilla@portoakland.com
510.627.1305
www.portofoakland.com

Port of Oakland

@PortofOakland

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TONY SCIARRA – WORKFORCE DEVELOPMENT

THE FUTURE WE WANT

Generation

Storage

Transport

Tesla START

Tesla START is a 12 -16 week intensive, technical training program, equipping future technicians with the skills and expertise to be successful technicians and grow their careers within Tesla. Upon graduation, successful students have the opportunity to become mid-level technicians in our rapidly expanding network of Tesla Service Centers and Factories.

START WITH THE WHY AND DEVELOP THE WHO

WHY

Problem 1: Training Backlog

Problem 2: Hiring Ramps

Problem 3: Trained Pipeline

WHO (Candidate Profile)

- Grads from Auto Technology Programs
- Grads from other Technical Programs with exposure to Electro-Mechanical
- Veterans who were doing the role in the field
- Candidates who were in the industry and decided to go back to school
- Candidates with Industry Experience

The Numbers

401
Total program graduates

8
Program Locations across North America

119
Service Locations with START graduates

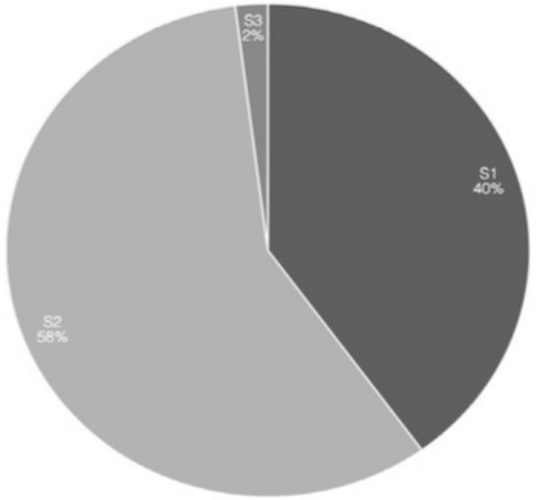
110
Graduates placed in Tesla Service in 2020

2
New START locations opened in Q2 & Q3

DIVERSITY & INCLUSION

Women	Veterans	Underrepresented Communities
7%	12%	59%

PLACED ROLE



92%
GRADUATION RATE

85%
PLACEMENT RATE

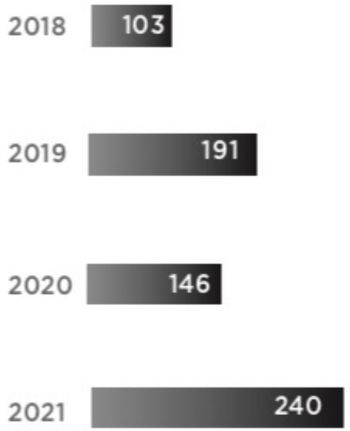
75%
ENTRY LEVEL TECHNICIANS

4
DEDICATED RECRUITMENT SPECIALIST

8
FULL-TIME INSTRUCTORS

GROWTH

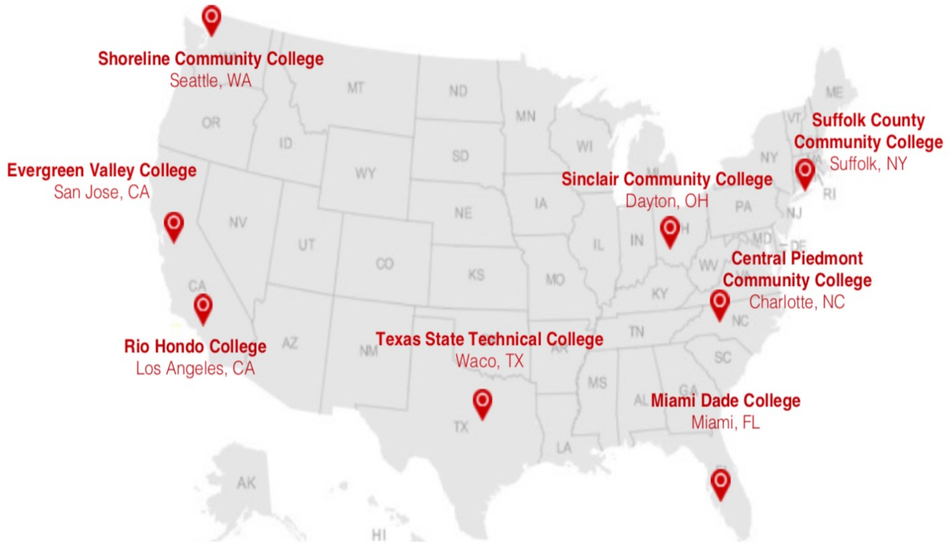
PROGRAM GROWTH



Since 2018 we have had a steady year over year growth of graduates from the START program.

*2020 growth greatly decreased due to COVID-19 restrictions

NORTH AMERICA LOCATIONS




TESLA

Q&A

Recruiters for Decarb Panel

Recap of Today's Session

What we heard from panels, what we can accomplish together

Next Steps

DRAFT INFORMATIONAL REPORT

An informational report for City Council covering the knowledge gathered from these sessions.

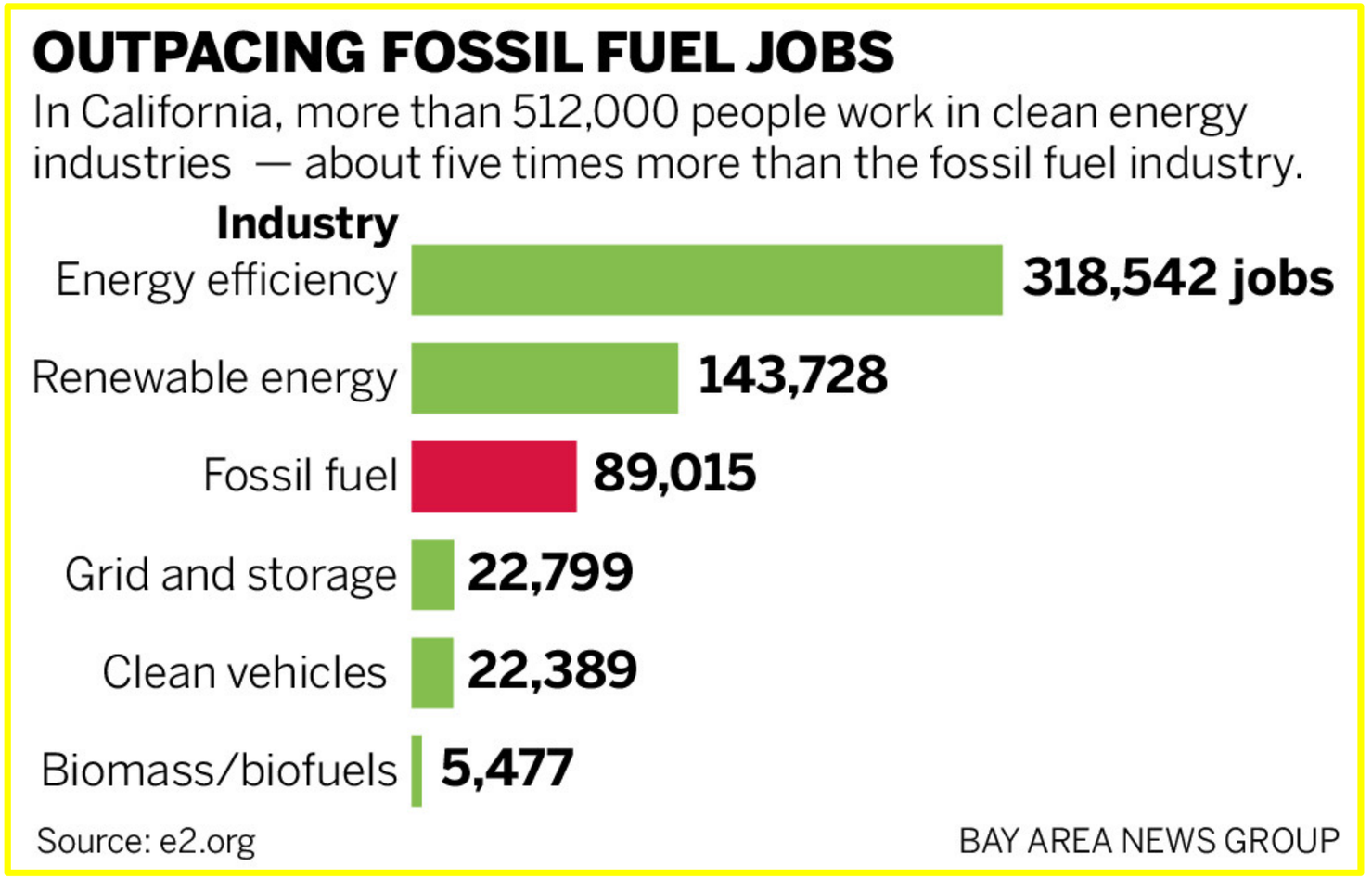
ECONOMIC DEVELOPMENT STRATEGY

COMPREHENSIVE PLAN FOR ELECTRIFYING ALL EXISTING BUILDINGS

Economic Development Strategy Update

1. City Goals: Reduce racial wealth disparities and increase household security
2. Oakland Equity and Climate Action Plan direction for Economic Development:
   A. Equitable job creation – emerging sector
   B. Investment in frontline communities
   C. Evaluate Sequestration incubator
3. Decarbonization Business Development: opportunities for new and current Oakland firms; public contracting equity
4. Develop partnerships to bring State and Federal incentives for electrification and sequestration to Oakland

Timeline: Draft 2021, Adopt for 2022-2025
Contact: Marisa Raya, mraya@oaklandca.gov



Thank you!

We appreciate your time, effort, perspective and sharing!

Thank you for being here!