

Civic Works

Presentation to the Just Transition Working Group of the MD Commission on Climate Change



Civic Works



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Personal Introduction



- ☀ **Name:** Ryan Trauley
- ☀ **Organization:** Civic Works
- ☀ **Position:** Business Development Specialist
- ☀ **Responsibilities:** Support business line development for Civic Works' Energy Programs – projects include:
 - Electrification pilots/programming
 - Roofing job training program and in-house roofing social enterprise





Presentation Overview

1. Civic Works Overview:

- a. Background, Model, & Approach

2. Civic Works' Energy Programs:

- a. Electrification Pilots
- b. Future Electrification Programming

3. Civic Works' Center for Sustainable Careers

- a. Training Model & Approach
- b. Roofing Job Training Program & Social Enterprise

4. Conclusion:

- a. Funding Sources & Community Impacts
- b. Additional Resources





Civic Works Overview

- ☀️ **Civic Works Mission:** to strengthen communities and promote equity for people of all ages through education, skills development, and community service
- ☀️ **Civic Works' Center for Sustainable Careers Mission:** to expand access to family-sustaining careers for Baltimore residents facing systemic inequity. We support Baltimore residents in building the skills needed to secure quality employment, and employers around investing in their workers and advancing equity across their practices.
- ☀️ **Civic Works' Energy Programs Mission:** to make it easy and affordable for low-income residents to make home energy upgrades, that reduce energy bills, make the home healthier, and cut our climate impact





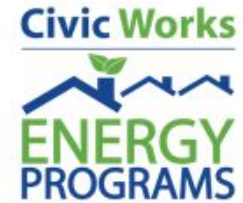
An Integrated Approach



QUALIFIED WORKERS

Job Quality Hub

Local Contractors



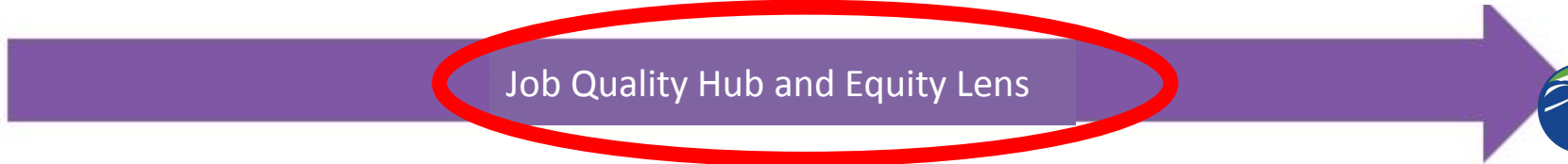
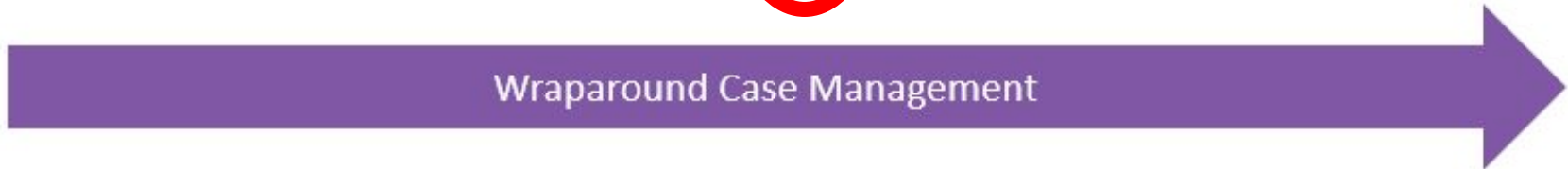
DEMAND FOR RETROFITS



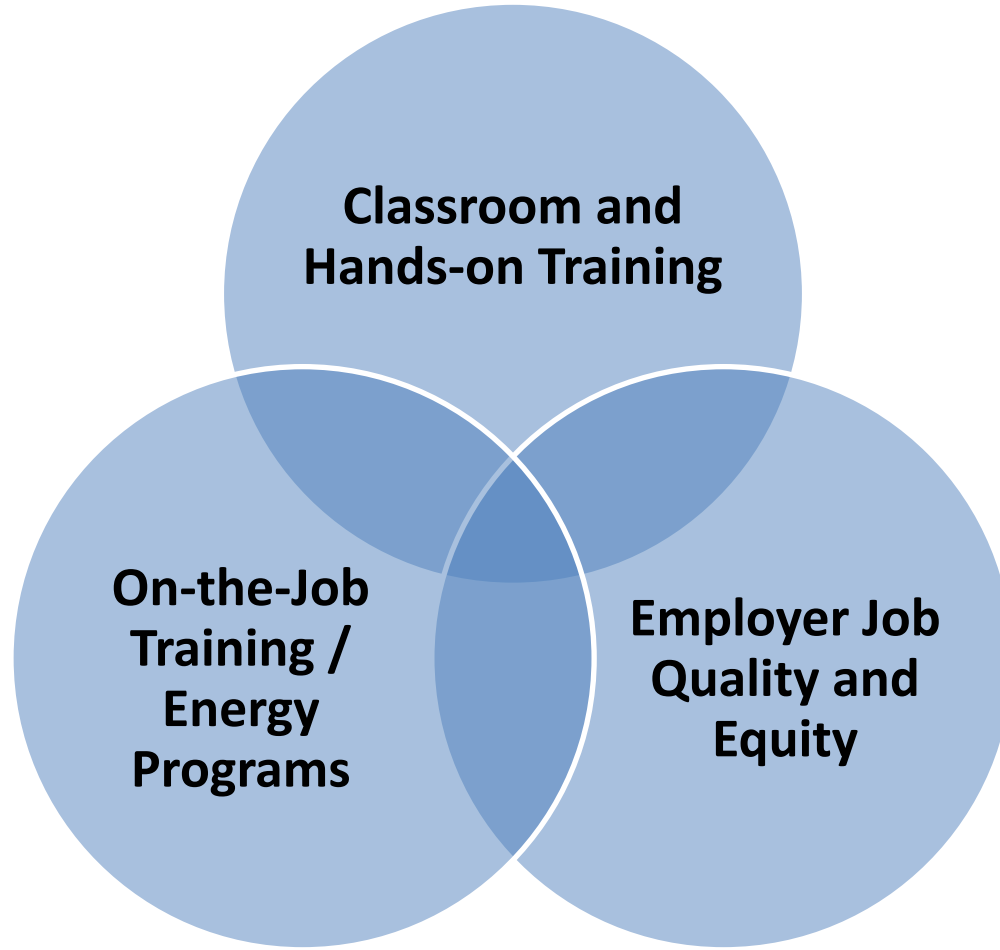
Civic Works



An Integrated Approach



Three Part Model





Principles: Community-based Outreach



Civic Works and our partners serve as trusted messengers



Educate residents through community events, meetings, newsletters and other community-based channels



Support a peer-to-peer social marketing campaign, with neighborhood ambassadors amplifying the message about the benefits of decarbonization and availability of programs





Principles: One-Stop Shop Resource Navigation



Qualify customers for multiple programs and braid funding sources in a single streamlined process



Seamlessly manage complex multi-step home decarbonization projects



Provide step-by-step guidance



Answer questions with trusted information



Address barriers completing the decarbonization upgrades





Civic Works' Energy Programs: Home Decarbonization Upgrades

EmPOWER
MARYLAND

Quick Energy Installs



Weatherization



Electrification



Rooftop Solar



Enabling Upgrade Examples

Cool Roofs and
Other Roofing
Services

Electric Panel
Upgrades

Removing
Knob and Tube
Wiring

Addressing Mold
& Moisture
Infiltration





Civic Works Solar Programs

- ☀️ **Baltimore Shines:** Rooftop solar for low- and moderate-income (LMI) Baltimore City residents + Solar job training and job placement.
- ☀️ **Solar Co-Op:** pre-negotiated rooftop solar packaged deal with local solar contractors.
- ☀️ **Community Solar:** subscription to a portion of a solar farm electricity.





Civic Works Electrification Pilots



Pilot Program Goals:

- Reducing greenhouse gas emissions
- Improving indoor air quality, especially for vulnerable populations
- Increase energy efficiency
- Enhancing public awareness and education of electrification/ decarbonization
- Deepen internal understanding of residential electrification retrofits





Civic Works Electrification Pilots

- ☀️ **Baltimore City Electrification Pilot:** pilot program funded by the Abell Foundation to replace gas stoves with electric induction stoves in 5 LMI households in Baltimore.
- ☀️ **Howard County Electrification Pilot:** pilot program in collaboration with the Howard County Office of Community Sustainability to replace gas stoves with electric induction stoves in 7 LMI households in Howard County.





Civic Works Electrification Pilots



What the client receives:

- A free induction stove/convection oven appliance
- Coverage of all associated costs to deliver it, install it, and remove old appliance
- A new set of induction compatible cookware
- A stipend for pilot participation





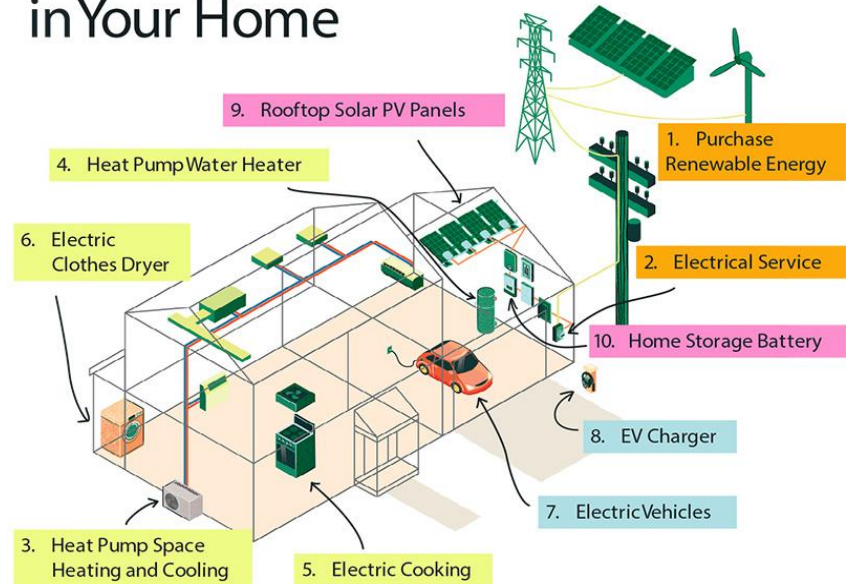
Civic Works Electrification Program



Goal for future programming - whole home decarbonization retrofits:

- Addressing foundational health and safety issues
- Weatherization/energy efficiency
- Electrification
- Rooftop solar

Electrify Everything in Your Home





Civic Works Electrification Program

Home Energy Audits

30% tax credit up to \$150

Solar Panels

30% tax credit with no maximum limit

Home Insulation

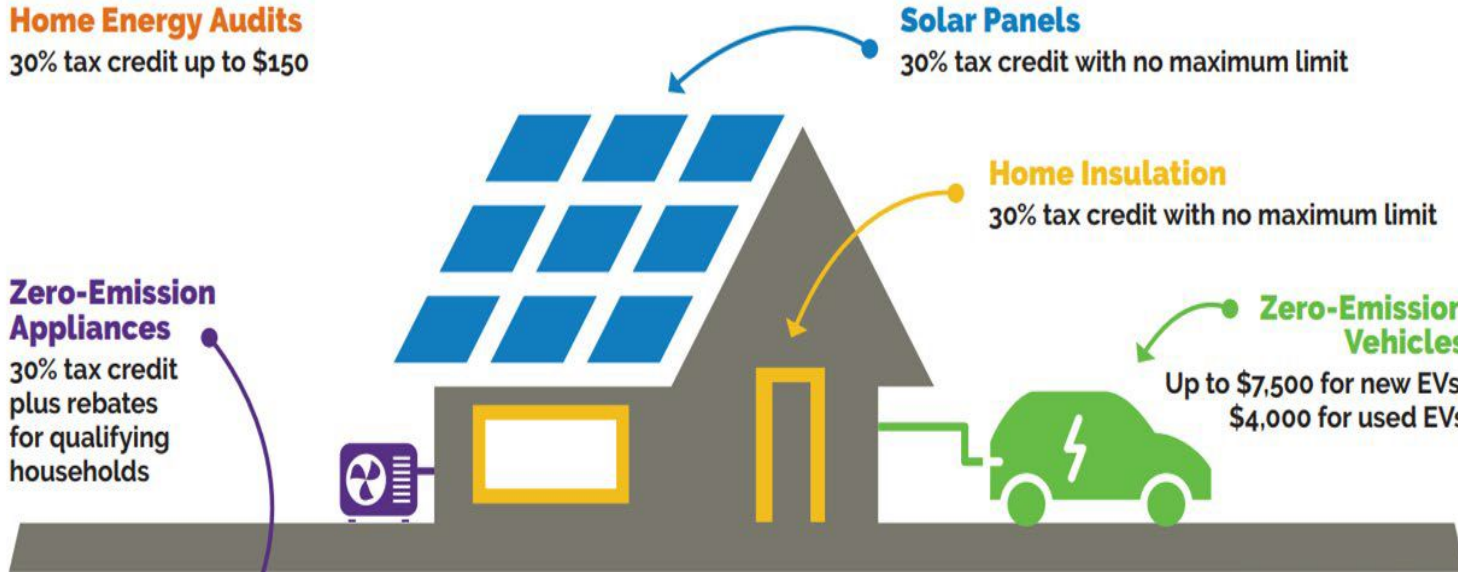
30% tax credit with no maximum limit

Zero-Emission Appliances

30% tax credit plus rebates for qualifying households

Zero-Emission Vehicles

Up to \$7,500 for new EVs,
\$4,000 for used EVs





Electrification Workforce Development Goals

- ☀️ Electrification auditor training for existing energy auditor workforce in Maryland:
 - Civic Works conducted pilot electrification auditor cohort in conjunction with Energy Score based on Building Performance Institute (BPI) principles for conducting electrification audits
- ☀️ Electrification/fuel switching incumbent worker trainings for contractors
- ☀️ Civic Works awarded grant to design and implement training module on EV charging station infrastructure and maintenance to be made available to Civic Works' training cohorts





Electrification: Common Challenges to Residential Electrification

- ☀ Project complexity
- ☀ Electrical limitations:
 - Insufficient panel space or capacity
 - Outdated wiring (knob and tube, etc)
 - Associated permitting and utility coordination
- ☀ Weatherization is a prerequisite for whole home decarbonization:
 - health and safety issues that result in deferral from weatherization are also barriers to electrification (mold, moisture, roofing leaks, asbestos, etc).





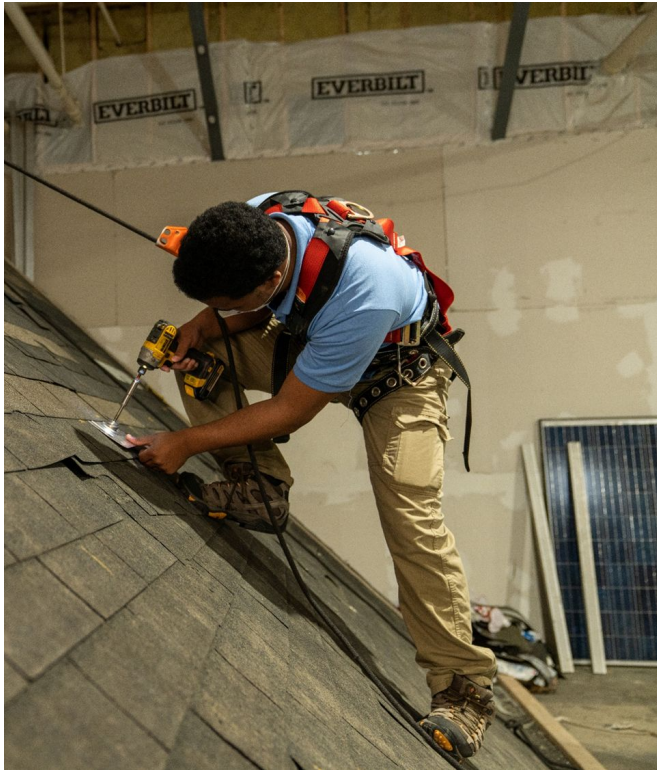
Civic Works **Electrification Collaboration Group**

- ☀ Civic Works coordinates monthly meetings of the Maryland Electrification collaboration group
- ☀ Group Mandate: informal peer-to-peer exchange of ideas, resources, lessons learned for Maryland-based organizations working in the electrification space:
 - Community based organizations / non-profits
 - State and local governments
 - Private sector (contractors, technical experts, etc)
- ☀ **Reach out via email if you'd like to join: rtrauley@civicworks.com**





Civic Works' Center for Sustainable Careers



Integrated workforce development ensures that investments in clean energy create career pathways for residents who need them the most



Civic Works trains residents for clean energy careers



Procurement opportunities commit contractors to local hiring and job quality standards



Decarbonization projects create on-the-job training opportunities





Civic Works' Center for Sustainable Careers



Sector-based Training Tracks:

- Residential Energy Efficiency / Weatherization (2010) [On Hold]
- Solar Energy Installation (2016)
- Utility Infrastructure (2019) and Remediation (2003)
- Roofing (2023)



Maintenance

- PV Service Technician
- PV Maintenance Technician
- PV Fleet Manager
- Solar Field Technician
- Solar Site Assessor

Commissioning

- Interconnection Manager
- Solar Project Developer
- Solar Site Assessor
- Utility Interconnection Engineer

Inspection

- PV Site Inspector
- Solar QA Inspector

Installation

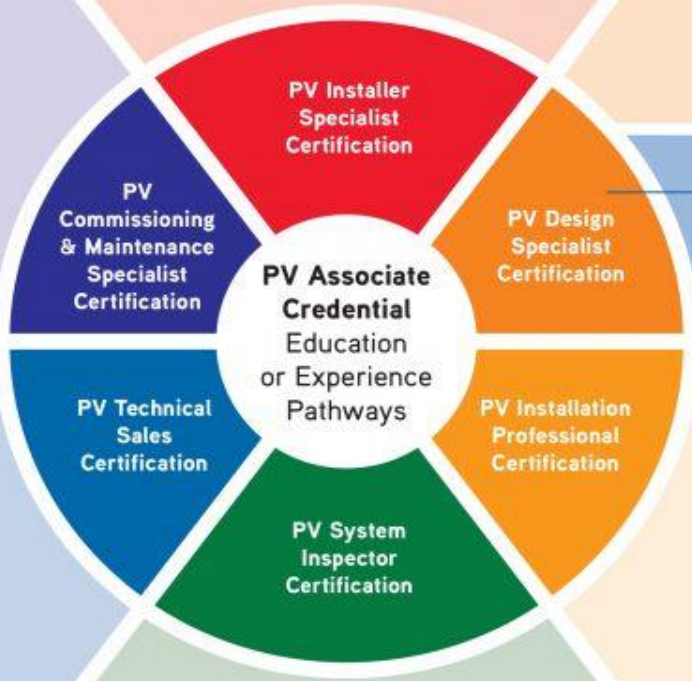
- PV Installer
- PV Electrician
- Installation Site Supervisor
- PV Construction Supervisor
- Solar Crew Chief
- Master Electrician

Design

- PV System Designer
- PV Design Engineer
- PV Electrical Designer
- Design Consultant
- Structural Engineer

Sales

- PV Technical Salesperson
- PV Sales Manager
- Solar Sales Associate
- PV Account Manager
- Business Development Associate



PV Associate Credential Education or Experience Pathways

Certification

Career Field

Job Title

Engineering

- PV Engineer
- PV Project Engineer
- Electrical Engineer
- Mechanical Engineer
- Field Project Engineer

Sales

- PV Technical Salesperson
- PV Sales Manager
- PV Territory Manager
- Solar Sales Associate
- PV Account Manager
- Business Development Associate

Marketing

- Marketing Manager
- Art Director
- Creative Director
- Advertising Director

Consulting

- Solar Sales Consultant
- Marketing Consultant

PV Technical Sales Certification

PV Installation Professional Certification

PV System Inspector Certification

Design

- PV System Designer
- PV Design Engineer
- PV Electrical Designer
- Design Consultant
- Structural Engineer
- PV Design Manager

Project Management

- Project Manager
- Project Assistant
- Project Director
- Solar Project Developer

Maintenance

- PV Service Technician
- PV Maintenance Technician
- PV Fleet Manager
- Solar Project Developer
- Solar Field Technician

Site Assessment

- Solar Site Assessor
- Project Developer
- Interconnection Manager

Inspection

- PV Site Inspector
- Solar QA Inspector
- PV Construction Inspector

Installation

- PV Installer
- Solar Crew Chief
- PV Electrician
- Master Electrician
- Installation Site Supervisor
- PV Construction Supervisor

NABCEP[®]

Raising Standards. Promoting Confidence.

ORGANIZATIONS:
Community Colleges


Activities:

- Certificate programs
- Degree programs
- Career technical education programs

ORGANIZATIONS:
**Registered Apprenticeships,
4-year colleges/universities**

Activities:

- Earn-while-you-learn training
- Journey card
- Professional degrees
- Career placement services


**This is not a linear pathway—
a person can on-ramp at any point along the pathway!**

CAREER

**Equitable Access &
Early Support**

**Community
Colleges**

**Pre-Apprenticeship/
Certificate Training**

**Apprenticeship/
4 Year Colleges**

Upskilling

ORGANIZATIONS:
**CBOs/Training Programs/
Adult Schools/High Schools**

Activities:

- Math preparation
- HSD/GED
- Barrier removal and ongoing case management
- On-the-job-training and placement services
- Career technical education
- Career exposure
- Professional skills development and life skills

ORGANIZATIONS:
Pre-Apprenticeship Programs

Activities:

- Training certifications
- Basic construction
- Math
- Barrier removal and case management
- Exposure to different crafts and occupations
- Applying to apprenticeships/college/employment
- Placement services

ORGANIZATIONS:
**Employers, Manufacturers,
Apprenticeship Training
Centers**

Activities:

- Professional certifications and training
- Apprenticeship
- Continuing education

The Challenge: Job Access

- ☀️ 33% of Americans have a criminal record
(Increase from 22% in 1965)
- ☀️ 87% of employers conduct background checks
(Increase from 34% in 1994)
- ☀️ 60-70% of formerly incarcerated individuals
are unemployed
- ☀️ 70% of residents without a GED report
difficulty finding a family-supporting job

JOB APPLICATION

Have you been
convicted of a
criminal
offense?



Civic Works' Center for Sustainable Careers



Addressing Systemic Employment Barriers:

- **Legal:** People of color are disproportionately impacted by the criminal justice system and subjected to the resulting collateral consequences
- **Education:** Underinvestment in residents of color, and inadequate opportunities to obtain employer-recognized marketable job skills
- **Hiring:** Closed recruitment networks, employer biases in hiring, and the use on non-job-relevant screening proxies
- **Transportation:** Most high quality employment opportunities are not public transit accessible
- **Financial:** The persistent racial wealth and income gap denies people of color the stability to retain employment
- **Workplace:** Workplace biases that impede employment retention and advancement





Civic Works' Center for Sustainable Careers



Benefits of the green construction sector:

- No formal education requirements
- Knowledge, skill and certification requirements for entry-level workers
- Graduates qualify for mid-skill positions with higher wages that lead to family-sustaining income
- Growing industry with sufficient need for trained workers
- We can provide participants with a competitive advantage during the training period





Wraparound Services



To ensure participants can fully focus on training, Civic Works provides all trainees with:

- Case management
- Legal support
- Financial stipend
- Free meals and snacks
- Transportation support
- Laptop and WiFi internet hotspot
- Construction tools and safety equipment to keep for their job





Enrollment Criteria

- ☀ Screen for drive, motivation, and commitment to the career field
- ☀ Avoid numeracy, literacy, or educational attainment requirements
- ☀ Committed to obtaining a driver's license with support from Civic Works
- ☀ Focus on serving individuals impacted by the criminal justice system

Essential Skills

- ☀️ Build work habits that will lead to long-term career success
- ☀️ Conflict resolution
- ☀️ Resume writing
- ☀️ Interview skills
- ☀️ Punctuality
- ☀️ Goal setting



Certifications

Roofing

☀️ OSHA 30 Hr

Solar Installer

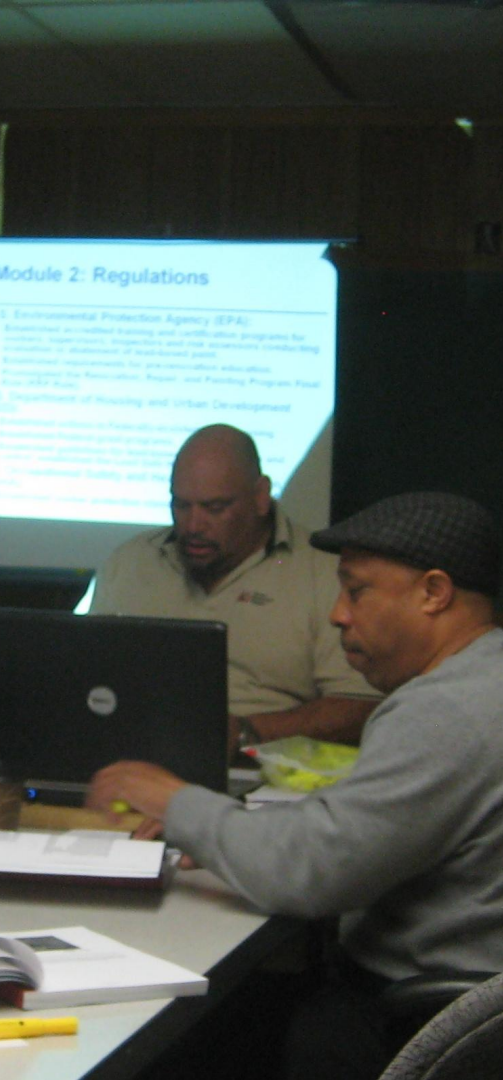
☀️ OSHA 30 Hr

☀️ Incumbent worker NABCEP PVA and PVIP

Utility Infrastructure and Brownfields

☀️ OSHA 30 Hr, OSHA Equipment Operations, OQ Preparation

☀️ HAZWOPER OSHA 40 Hr, Asbestos Abatement



Hands-on Training

- ☀ Participants learn best by doing
- ☀ Use contextualized learning to cover key math and science concepts
- ☀ Use hands-on assessments to measure competency





Civic Works' Roofing Job Training Program

- ☀️ Our newest job training track
- ☀️ 4 cohorts scheduled in 2024
- ☀️ Focus on commercial low-slope roofing
- ☀️ 4 employer partners in Baltimore





Civic Works' Roofing Job Training Program



Next step - create in-house roofing social enterprise within Energy Program:

- Minimum viable product: reflective cool coatings
- Creates in-house capacity to potentially address a common reason for Energy Programs deferrals – roofing issues
- Supports Baltimore Shines low-income rooftop solar program (roofing repairs, cool coatings that increase PV system efficiency)
- Creates capacity for in-house on-the-job training for roofing job training track





Braided Funding Sources

Current

- ☀ MEA Energy Efficiency Equity Grant Program
- ☀ MEA Solar Energy Equity Program
- ☀ Utility EmPOWER Funding
- ☀ SRECs
- ☀ Federal Solar Tax Credit
- ☀ Local foundation support
- ☀ ARPA, CDBG and home repairs programs

Future

- ☀ DOE HOMES and Electrification Rebate Programs
- ☀ EPA GGFR Funding (Solar for All, NCIF, etc.)





Community & Environmental Impact

- ☀️ **26,044** households served
- ☀️ **17.41 million** kWh of electricity saved
- ☀️ **1.07 million** therms of natural gas saved
- ☀️ **\$3.4 million** in energy bill cost savings
- ☀️ **39.4 million** pounds of CO2 saved
- ☀️ **150 people** trained for solar careers
- ☀️ **89%** job placement rate
- ☀️ **\$18.42 per hour** average wage at placement



Additional Resources

- ☀ Civic Works' Center for Sustainable Careers
- ☀ Civic Works' Energy Programs
- ☀ Rewiring America: IRA Calculator and Personal Electrification Planner
- ☀ Learn more about EmPOWER Program HERE
- ☀ Additional Thoughts/Questions?:
rtrauley@civicworks.com
- ☀ Thank You!

