

## Just Transition Employment and Retraining Working Group Meeting Minutes

Friday, May 31, 2024, 10:00am-12:00pm E.T.

Meeting Location: Hybrid

In person at 1800 Washington Boulevard, Baltimore, Maryland 21230

Online via Google Meet

### Attendees

#### Members

<i>Member Name</i>	<i>Member Affiliation</i>	<i>Present</i>
Senator Dawn Gile	Maryland State Senate	X
Senator John Mautz	Maryland State Senate	X
Del. Regina Boyce	Maryland House of Delegates	
Del. David Fraser-Hildago	Maryland House of Delegates	X
Cindy Osorto	Maryland Department of the Environment, Designee	X
Chanel Viator	Maryland Department of Labor, Designee	
Allison Breitenother	Maryland Department of Transportation, Designee	X
Richard Strong	International Brotherhood of Electrical Workers (IBEW)	
Jason Ascher	Mid-Atlantic Pipe Trades Association	X
Rico Albacarys	IBEW Local 24	X
Donna S. Edwards	Maryland American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)	
Gerald Jackson	Maryland AFL-CIO	
Jerry R. Williford Jr.	IBEW Local 1900	
Sean Straser	Steamfitters United Association (UA) Local 602	X
Casey Ross	Lorax Partnerships	X

Ryan Trauley	Civic Works	X
Stephanie Johnson	Edison Electric Institute	X
Moira Cyphers	American Clean Power Association	
Erin Appel	UnitedHealth Group	
Brad Philips	Maryland Council of Community College Presidents	
Lynn Nash	Maryland Military Coalition & Maryland Council of Chapters, Military Officers Association of America	
Kimberly Haven	JustLeadershipUSA	X
Jennifer Walsh	Frostburg State University	X
Suzanne K. McCoskey	Frostburg State University	X
Kobi Little	NAACP Maryland State Conference	
Tifani Fisher	NAACP Maryland State Conference	
Larry Shifflet	Birch Oil and Propane Company	
John Hines	Easton Utilities	
Tanya Terrell	Baltimore Gas and Electric (BGE)	X

## Participants

Stephanie Vo, Jared Williams, Lauren Peters, Carmen Metoyer, Christian Riordan, Daniel Hurley, Dun Scott, Elisa Basnight, Jamie Lopp, Jared Deluccia, Jason Ascher, Jennifer Laszlo Mizrahi, Jonathan Morgenstein, Justin Barry, Kala Fleming, Khalid Malik, Laurence Peters, Leia Sims, Les Knapp, Luke Miller, Mariana Rosales, Noble Smith, Rachel Lamb, Rebecca Price, Rob Emard, Robert Godfried, Ryan Powell, Ryland Taylor, Samuel Furio, Vandan Patel, Jose Coronado-Flores, David Hollens, Michele Joseph, NaShona Kess, Camen Metoyer, Susan Miller, Hanna Watts

## Introductions and Updates

- Member roll-call
- Members and nonmembers made introductions in the chat.

## Recap of First Meeting and Just Transition Working Group (JTWG) Deliverables

- In the first JTWG, we went over the Climate Pollution Reduction Plan (CPRP) and the Climate Solutions Now Act of 2022 which created new climate priorities for the state.
- Takeaways from CPRP related to Maryland's Just Transition
  - Maryland is moving away from coal and other fossil fuels.

- Maryland is interested in building new clean and renewable energy industries.
- Maryland wants to support all workers equitable across a wide range of sectors.
- Economic benefits of decarbonization
  - We plan to see a wide variety of new jobs created in response to new decarbonization policies and approaches
- JTWG Main Deliverable Part 1: Advise the Maryland Commission on Climate Change (MCCC)
  - Approved recommendations do get considered for legislation
  - Please begin thinking about submitting ideas for the WG to vote on
  - See 2023 MCCC annual report here:  
<https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Pages/MCCCReports.aspx>
- JTWG Main Deliverable Part 2: Complete a study to the Governor and General Assembly
  - National Renewable Energy Laboratory (NREL) is the lead contractor, grant awarded by the US Climate Alliance
  - Within the next few months, NREL will come and present their work on the study

### **Highlights from Governor Moore's 2024 State Plan**

- 1st state plan in about 10 years outlining priorities across the board to leave no one behind
- Top 5 priorities related to the just transition
  - Set up students for success
  - Create an equitable, robust, and competitive economy
  - Connect Marylanders to jobs
  - Make Maryland a leader in clean energy and the greenest state in the country
  - Make Maryland a state of service

### **Just Transition Approaches and Guiding Principles**

- Proposed guiding principles for the JTWG
  - Informed by readings from a wide variety of materials, including United Nations (UN) principles, approaches from other US states
- Principles include:
  - Quality clean job creation
  - Occupational training and education
  - Investment in clean jobs and impacted communities
  - Identify and eliminate structural barriers to employment
  - Hire and retrain underrepresented workers
  - Collaborate with stakeholders

### **Community Engagement and Energy Efficiency Workforce Best Practices by Ryan Trauley, Civic Works**

- Ryan Trauley, Business Development Specialist at Civic Works
  - On the energy programs team
  - Projects involved in include:
    - Electrification pilots and programming
    - Roofing job training program, including an inhouse roofing social enterprise
    - Center for Sustainable Careers
- Civic Works Overview

- Nonprofit, serving Baltimore and surrounding areas for over 30 years
- Focused on education, skills development and community service
- Center for Sustainable Careers Mission: expand access to careers for those facing systemic inequity in Baltimore
- Energy Programs Mission: make it easy and affordable to do home energy upgrades for low-income residents in Baltimore, works collaboratively with Center for Sustainable Careers.
- Integrated approach between Center for Sustainable Careers and Energy Programs
  - On the Center side
    - Construction training programs, whose graduates are placed with local contractors
  - On the Energy Programs side
    - Includes weatherization and home improvement work done by local contractors
  - This model helps us build deep relationships with contractors, and build trust with contractors to work with them about job quality standards and equity
- The pathway a trainee would take in Center for Sustainable Careers
  - Ryan showed a visual and described the pathway a trainee would take from recruitment and screening to job placement and retention services
  - On the job training portion intersects with energy programs side
    - Good option for trainees with higher barriers
    - Energy programs staff has the time and capacity for this
  - Track retention for 2 years after graduation
    - During this time trainees have access to wraparound services
- Three-part model for Civic Works:
  - Classroom and hands-on training
  - On the job training / energy programs
  - Employer job quality and equity
- Principles
  - Community-based outreach
    - Team of community outreach coordinators, who are trusted community messengers
    - Ton of word of mouth referrals
    - Peer to peer social marketing approach with energy captains and neighborhood ambassadors
  - One-stop shop for resource navigation
    - Applicable across programs, but specifically relevant to energy programs
    - Energy advisors help customers navigate through all the different programs and what would be most beneficial for them
- Energy Programs
  - Suite of programming includes:
    - energy installs
    - energy audits
    - weatherization

- electrification
    - rooftop solar
  - Common issues that we might encounter that we try to leverage funds for
    - Roofing services
    - Electrical panel upgrades
    - Knob and tube wiring removal
    - Addressing mold and moisture infiltration
- Solar Programs
  - Baltimore Shines: rooftop solar program for low- or moderate income (LMI) Baltimore residents, as well as correlates with a solar job training and placement program
    - Concluding its pilot phase; rooftop solar on 17 homes already
    - Funding in place for phase 2, goal is rooftop solar for 200 homes over the next 2 years
    - If a household doesn't qualify for Shines, we look at what else they might qualify for
  - Stephanie: Is the Solar for All going to support Baltimore Shines?
    - Ryan: That is not going directly to Baltimore Shines. We were not an awardee for that.
- Electrification Pilots
  - Goal: reduce greenhouse gas (GHG) emissions, improve indoor air quality, increase energy efficiency, enhance public awareness, deepen internal understanding and ability to do work
  - Ongoing pilots to replace gas stoves with electric stoves in Baltimore City and Howard County, prioritizing clients that are LMI and at higher health risks
  - Del. David Hidalgo: When you make those transitions with induction stoves, are you bringing in the stove and are you doing the electrical? What are you doing about pots and pans afterwards?
    - Ryan: When that client gets that stove, we cover all costs associated with it, as well as:
      - A new set of induction cookware
      - Stipend for pilot participation
    - We cap the gas line and run a circuit from panel to stove location; in some cases that included heavy ups for panels.
  - Larry Shifflet: Of all the things that are included in this, do you all have an average cost associated with that?
    - Ryan: A rough estimate based on the contractor that we've worked on with these pilots. If there isn't a panel upgrade, the project will be about \$3,000, not including the cost of the stove itself. Cost of stoves ranges. If we do consider panel upgrades, it gets considerably more expensive: \$10-13,000.
    - Larry Shifflet: Is there a standard that determines whether to replace the panel or not? Like building codes?
      - Ryan: We don't have an organizational standard. We defer to our subcontractor partner. For two clients that had panels with recalls, we're inclined to replace the panel and do the upgrade. We talk to the

- client to see how old their other gas appliances are and if additional electrification work is of interest.
- Del. Hidalgo: What is the typical cost of an induction stove top?
    - Ryan: An induction stovetop with a convection oven—some that are around \$1200, and they go upwards to \$4000 depending on brand name, features, size. The inventory changes a lot.
    - Del. Hidalgo: Are there more and more manufacturers? Are the prices overall coming down?
    - Ryan: Generally, most of the major manufacturers have a suite of induction ranges. All that I've purchased recently were between \$1500-2000, which were Samsung or LG—not General Electric.
    - Del. Hidalgo: Do you try to buy American made products?
      - Ryan: It hasn't been a policy with these pilots, in terms of scale. It has not historically been a primary consideration. It's usually what's going to be best pricing-wise and good fit for the client.
  - Kala Fleming (chat): What is the average stipend for participating homeowners? And upfront or over a period of time?
    - Ryan: Most recently, \$1000. In retrospect, we ended up doing less polluting testing than we anticipated in the home, so the work was less invasive than we thought. The stipend was given at the completion of the process.
  - Rico Albacarys: Is there any kind of competitive procurement process for the contractor that you're working with to make sure those prices are good prices for the organization? Are any civic work graduates being used in the actual install itself?
    - Ryan: With these being pilots, we have a contractor vetting process, where we get feedback from other contractor partners and I spoke with Rewiring America and used their tools to assess pricing. Pricing with this contractor was on the higher end of the range but we're also paying them a bit more because they are functioning as a general contractor for this work—they're coordinating the plumbing, the electrical, and any aesthetic work. We've been satisfied with their work but we haven't made commitments beyond the scope of these pilots.
    - Civic Works participants haven't yet been on these electrification projects. If there is a trainee working with our energy program - they are going out on the front end of this process - they'd be doing energy audits on the home or working with a staff member who's doing the quick install appointments. We don't have someone doing training for these specific installations. Long-term, we are interested in expanding in-house capacity to have an electrician or HVAC technician on staff to have a small-scale apprenticeship down the road.
  - Larry: You said you did less pollutant testing, but isn't the purpose to reduce pollutants?
    - Ryan: To get a good reading of nitrogen dioxide, you need to measure it in parts per billion (ppb) in terms of levels in a home. Some of the devices for consumers aren't so accurate. We do standard testing like carbon monoxide testing, which is standard for an energy audit. Civic Works is an implementation organization, there are other organizations doing the studies and science around pollutant measurements and there are things we

can reference for that. It's just not totally in our sphere, and it's a question of value also. The device in the home was previously releasing pollutants and now we know that it's not. So all that we're measuring is what the levels were at previously. We ultimately know that we're zeroing that out on the basis that it's an induction stove.

- Electrification Program
  - Goal: whole home decarbonization retrofits, addressing health and safety issues in the home
  - Tax credits that are available for electrification and solar in the home
  - Check out Rewiring America's resources
  - Jared Williams (chat): Is there potential for a relationship with range manufacturers to get ranges for less than retail?
    - Ryan: I think so as we scale up this programming. We have a contractor account with Home Depot and we get discounts through that. In terms of a direct manufacturer relationship, I think certainly as we scale up there will be opportunity for that.
- Workforce Development Goals
  - Opportunity here with the pool of existing Maryland energy auditors to do electrification audits
    - Civic Works has piloted electrification auditor cohort with Energy Score
  - Opportunity for electrification incumbent worker trainings
  - Will implement a training program for electric vehicle (EV) charging station infrastructure and maintenance
  - Laurence Peters: How much effort are you making for worker training, developing young apprentices, to install the various products you mentioned? How large is that group and how are you getting funded to do that workforce training?
    - Ryan: I'll talk about our training tracks in the Center for Sustainable Careers and more about our funding sources and what we braid together.
- Common challenges to residential electrification
  - Project complexity, in terms of fuel switching
  - Electrical limitations
  - Weatherization, which is a prerequisite for home decarbonization
    - Must address issues that would cause deferral to weatherization first
- Electrification Collaboration Group
  - If this is of interest to you, reach out to Ryan because they are always looking for new participants
  - Monthly meeting, informal, peer-to-peer exchange
- Center for Sustainable Careers
  - We believe that integrated workforce development in green energy and decarbonization is important to ensure that there are pathways for residents that need it the most
  - We have several sector-based training tracks, like solar energy installations, roofing, etc.
  - Ryan showed a visual with a wide array of careers in the solar energy industry, to emphasize the viability of it as a career path

- Ryan showed a visual indicating the various points in someone's career when there is opportunity for professional development
  - Civic Works has several options supporting professional development
  - Civic Works is interested in doing a registered inhouse apprenticeship
  - Incumbent worker training is a big part of our model
- One challenge: job access
  - With regards to formerly incarcerated groups, more Americans than ever are being arrested and communities of color are disproportionately affected.
  - We know that we need to consider supporting disadvantaged individuals and look at this through a racial equity lens.
- Systemic employment barriers
  - Ryan listed many barriers, including education, under investment, closed recruitment networks, and public transit.
- Benefits for green construction sector:
  - Not many formal education requirements, rather knowledge, skills and certification requirements.
  - Goal to give our trainees a leg up to access mid-level positions upon graduation.
- Wraparound services
  - We want to ensure that trainees can fully focus on their training, so we provide case management support, legal support, financial stipend, and many other services so they're set up for success.
- Enrollment criteria and essential skills
  - Want to avoid unnecessary barriers to entry, like numeracy, literacy or educational attainment requirements
  - We also focus on developing soft skills and personal development
- Certifications
  - Civic Works provides a few different industry-relevant certifications during training, like OSHA 30 and others.
- Our philosophy is hands-on training
- Current programming and plans for future programming:
  - Roofing job training program
    - Newest training track, with pilot cohort in 2023
    - Focus is on commercial low-slope roofing
    - Four employer partners in Baltimore
    - Meets all wage and job quality standards
    - Our vision is creating an in-house roofing social enterprise in our energy programs team, with a focus on reflective cool coatings
- Kala Fleming (chat): Would love to get Civic Works insights on labor intensity of solar projects/industry over the long term. Two years out, is everyone trained and still fully employed? There seems to be mixed experiences across different cities.
  - Ryan: I'm not the expert on the exact retention stats for those cohorts. I know that we place emphasis on retention and successful placements. We're not interested in just graduating folks, giving folks the skills, and then putting them in a market where there's not jobs. We have a selection of solar industry employers that we place with successfully. Across the program in the Center for Sustainable Careers, our one year



retention rate is around 82-85%. We take a lot of pride in that stat. In terms of more specific figures, I would rather connect online to see what I can get.

- Elisa Basnight (chat): Would love to understand what percentage of women do you see participating and graduating from your programs.
  - Ryan: It is something that our organization is perpetually working to do a better job at. Certainly a majority percentage of our program participants are men—I don't know the exact breakdown by gender. This is something we try to stress in our outreach and something we try to continue to work on improving. We have some resources and materials that specifically emphasize career paths and why these things should be of interest to people of all genders.
- David Hollens (chat): Are you aware of any changes to the Maryland Electrician Board's low voltage electrician requirements? Most electrical projects require oversight via a Master Electrician, limiting access to new tradesmen within the industry.
  - Ryan: I don't have the specific knowledge of that. I do know that we've done feasibility studies in the past looking at electrical and HVAC as something that will fit into our standard training track model. We assessed that there were really high barriers to entry, and they don't really fit the model of our general type of programming. If we expand to look at an apprenticeship format for something like that, we think there is opportunity there.
- Kimberly Haven (chat): Can you explain your outreach and recruiting process for women and formerly incarcerated individuals?
  - Ryan: Across the board it does come back to the model of community-based outreach. We have community based coordinators that meet folks where they are. Our central office is in the Belair-Edison neighborhood, so we are right in one of the communities where we're serving. There are a lot of folks that know about us because they see the building, so come in and learn about the programming. I think it's known by our reputation by how long we've been around, a lot of people are aware of our programming and that it is a good resource for folks with a record of incarceration or re-entry population. Again, it's those wraparound services—we're providing case management services to the people coming in. These are things that we include in our marketing and are spread by word-of-mouth in communities. I would say it's similar in terms of trying to recruit a diverse group of folks based on gender. Again, I'm not one of those community-based outreach coordinators on that side, so in terms of exact strategies I'd rather talk about it offline.
- Braided Funding Sources
  - Some current funding sources include MEA grant programs, Federal Solar Tax Credit, foundation support, etc.
  - Some future funding sources include DOE HOMES and Electrification Rebate Programs, and EPA Greenhouse Gas Reduction Fund (GGRF) Funding
- Civic Works has made significant positive community and environmental impacts.

### **Sustainable Buildings and Decarbonization Vision of the Future by Casey Ross, Lorax Partnerships**

- Lorax Partnerships Overview
  - Located in Baltimore City

- Sustainable building consulting firm, mostly commercial buildings, a few single family homes
- 40 accreditations in the building and energy and sustainability performance sphere
- A range of services from energy audits to financing analysis
- Introduction by Casey Ross, Director of Energy Services
  - History in the building industry
- Sustainability Planning
  - Clients are planning for sustainability
  - Clients start with energy audits and benchmarking, and are becoming more aware of Building Energy Performance Standards (BEPS) / Climate Solutions Now Act (CSNA)
  - We're seeing more interest and construction of renewable energy and battery storage, doing more net-zero design and assisting clients with incentives and rebates
- Case Study: Fulton Ave Homes
  - Recent single family home project, currently in bidding process and should get started in the fall
    - Taking existing Baltimore row homes and refurbishing them to a net-zero standard and part of the affordable housing
  - Working with developers, architect, and engineers, and using energy modeling software to figure out how to most cost effectively make the row homes net-zero
    - Modeling helps analyze mechanical, HVAC equipment efficiencies, plumbing, and insulation, and how much of an effect these had on energy usage and where we could be strategic
  - Want to use this project as a template to reproduce around Baltimore, especially for affordable housing
  - David Hollens (chat): What about TRUE Zero Waste certified?
    - Casey: We do work with zero-waste certifications, but that's not my expertise—that's more on the materials side.
  - Fulton Homes Energy Results:
    - Modeling showed that plug loads (appliances, TVs, things that you would plug into the wall, etc.) and heating use the most energy yearly.
    - Can't change the plug loads too much since it's user driven, but we can look at heating
    - Larry: How much of this red in the pie chart (heating) could be reduced just by tightening up the envelope?
      - Casey: What we found is that air leakage ("tightening up the envelope") was by far the biggest factor in energy savings in single family homes. The caveat is that our model is already using heat pump hot water heaters, SEER 16 HVAC, ventilation air heat exchangers—so when you start squeezing down those other loads/energy sources, infiltration becomes the dominant factor.
    - Del. Hidalgo: What energy or resources are being put in on the state and local level to get mechanicals out of attics? Is it still a fairly common practice with traditional home construction? My experience is that builders like to put them in the attics to save square footage.
      - Casey: The MD energy code is getting better at that, making it harder to justify being able to do that because there are insulation

requirements. It is not a common practice anymore because of accessibility and we're not seeing them as much significantly.

- Maryland Building Energy Code
  - Maryland is a leader in progressive energy codes in the US
  - MD has adopted IECC-2021
  - MD is lax in enforcement and implementation
- Heat Pump Energy Efficiency
  - Heat pumps and electric heating
    - Old way of thinking is electric resistance heating
    - Heat pumps takes a smaller amount of electricity to move heat from the outside or inside and moving it the other way around
    - The technology of heat pumps over the last few years has transformed how well these perform
  - Del. Hidalgo: Who are the current leading manufacturers in that space?
    - Casey: A.O. Smith, LG, Rheem. The biggest HVAC manufacturer, Trane, hasn't really gotten into the residential market. Mitsubishi is a manufacturer that does well in this market.
    - Del. Hidalgo: So traditional American manufacturers are just not there yet?
    - Casey: They're not there. They have stuff for the much larger side for commercial, but for residential or multi-family apartment style buildings, they're not there yet.
- Example of service - Installing heat pump water heaters
  - Casey showed examples of a gas-fired water heater and a heat pump water heater from A.O. Smith
    - Some considerations: heat pump water heaters are often more expensive upfront and are usually larger
  - Del. Hidalgo: Do you vent them for both incoming and exiting air because it's kind of a dehumidifier? And do you recommend that? If you have a moist basement? For times in the winter, do you vent the exhaust because it's cold?
    - Casey: They can be vented, and it depends on the client. For single family homes and apartments, it's often not worth the trouble to vent it because it's additional ductwork. But you can vent it to a different room. If you have this, in the winter it's giving a bit of a penalty, in the summer it's giving you a bit of a benefit. Over the course of the year, that effect is neutralized. So you can vent the exhaust in the winter, but to do that effectively you'd have to vent it outdoors, and that's another wall or roof penetration so on the financial side it doesn't make sense. For larger installations, where it's a centralized system that serves multiple houses or apartments, then the financials make much more sense.
  - Full comparison of gas-fired and heat pump
    - Heat pump model can be plugged in, so the labor costs are less than installing a gas-fired heater
    - Local utility rebates and tax credits for heat pumps
    - So, overall heat pumps are cheaper to install than gas heaters
    - Heat pumps are also cheaper to operate

- Del. Hidalgo: Do you have to use a certified installer? How do you get it installed? Is there a list of installers, you can just have whoever?
  - Casey: That can be based on manufacturers' warranty, so you might need a certified installer for that portion of it. In terms of what trades you need to have, it's much less labor to do it. Yes, you can just call Home Depot and ask them to do it.
- Larry: What type of installation? Is this expected to be a residential installation or commercial installation?
  - Casey: Residential, family of four or five for an 80-gallon tank. A single apartment would be in the 30 or 40 gallon range
  - Del. Hidalgo: In some ways comparing apples to oranges. Right now we're comparing gas, but if we compared a traditional electric resistance—it would be astronomically more.
  - Casey: That's right, for electric resistance, the operating cost would be triple compared to the heat pump
- Ground-source heat pumps
  - Popular on the Eastern Shore, examples have been on air-source heat pumps
  - Ground source heat pumps are the most efficient type of HVAC
  - Two types of ground-source heat pumps
    - Horizontal field
    - Deep wells into the ground
  - Community geothermal
    - MD WARMTH Bill 2024 addresses this
    - We've seen it in Europe, Boston, Pennsylvania
    - Central community building with a large geothermal plant and that has underground piping that serves buildings throughout the community
    - Not too far conceptually from what existing facilities in Baltimore, like central cold water distribution
- Operational vs Embodied Carbon
  - The building efficiency industry has focused on operational carbon, but the new wave is embodied carbon
    - Operational carbon: energy usage, grid effects, power plant, etc.
    - Embodied carbon: the building of a structure incurs carbon emissions (concrete, steel, insulation)
    - Must consider the whole lifespan of a building
  - Embodied Carbon Trends
    - Use of mass timber construction, which reduces embodied carbon
      - Example, 40TEN Building in Baltimore
    - Del. Hidalgo: Is that an engineered wood or what kind of timber is that? From the engineering perspective, how do they do it—they look thick. Is the load bearing portion engineered in a different way?
      - Casey: Yes, it's an engineered wood. There's no more hundred year old oaks. Thickness is due to fire protection, half of a column is a sacrificial layer, and in the event of a fire that will burn away or char, leaving the load bearing portion of the column intact, which has a different makeup in terms of how they make that composite wood,

but it's still wood construction. The load bearing is less fire resistant and it relies on the outside.

- Cindy Osorto: Another example is that Under Armor is building a new headquarters using mass timber in Baltimore and they have estimated using less life cycle emissions than a typical project. They sourced mass timber from Europe, which was not engineered. It varies by structure what kind of timber they use.
  - Del. Hidalgo: So they brought timber all the way from Europe?
  - Casey: Most mass timber is from Germany right now because there are certifications programs that say you have to have a renewable forest that you're taking this from and Germany is the leader in that. Canada should have theirs next year.
- Federal Tax Incentive Programs
  - We want to help fund energy efficiency and sustainability measures, examples include 45L Tax Credit (residential) and 179D Tax Deduction (commercial)
- Working Maryland Utility Providers in EmPOWER Maryland program to provide energy models for custom utility rate program, which incentivizes building owners to construct more energy efficient buildings
- Green Building Local Tax Incentives
  - If buildings are certified through LEED or NGBS program, they are eligible for different percentages of local property tax abatement
  - Casey showed a map with different incentives available in different counties and cities in Maryland
- Green Building jobs
  - Many jobs to come related to green buildings and decarbonization

## Discussion

What do you see as priorities, challenges, and opportunities for this working group?

- Suzanne McCoskey: Are there differences across prison populations in MD in terms of their potential for training while incarcerated? I was impressed with the Civic Works presentation, in terms of having workers who were previously incarcerated brought into the training programs. I'm just wondering if programs like Civic Works find that there are certain prisons or certain prison programs that prepare them especially well for transitioning to programs like Civic Works or are the people being reintegrated out of prison basically all—they find equally capable of starting the program. Does MD have a uniform treatment of training programs in prisons?
- Kimberly Haven: My mind is going towards how to get more women, and certainly formerly incarcerated individuals, but incarcerated women particularly. The programs available to women are finite and not set up to help them jump into jobs like Civic Works. There needs to be a more concentrated effort to do behind-the-walls outreach and engagement, because I know there's an appetite for it. Funding is very limited for setting people up to make that transition back into the community and there are limited opportunities to make that seamless transition. And if we're talking about a workforce that is untapped, then there are

opportunities to engage in behind the fence strategies for outreach, engagement and training to bring programs in. There is an interest and there is no uniformity. Arguments always come up every legislative session that they have to go where the greatest need is, and by numbers that is in the men's facilities. But there are women who would dive into this program, who want to get involved in it, who have families they want to support, and who are in these communities that we serve and that want to be involved. I'm excited about this work group because maybe that narrative will shift and maybe we can actually do some training and engagement before people are released and then provide that seamless transition into any one of these programs.

- Larry: Not my area of expertise, reintegrating incarcerated back into the workforce, it didn't seem like there was very good reporting on retention, what the results have been, have there been any incidents, things of that nature. It's one thing to reintegrate into public space, but these are jobs that are going to be in residential homes, so I'm assuming at some point they're not going to know that the person coming into their homes is going to potentially have a criminal record or history. So better record keeping to see what the long-term effects of that are going to be.
  - Kimberly Haven: We're supposed to hold someone's criminal record against them, if it directly relates to the job that they're doing. I understand that there have to be some safeguards but this is a workforce that are mostly entry-level positions. So there is a better way of doing this, and reporting is certainly a big component of that, but also if Gov. Moore said we're a state of second chances—we're a country of second chances—I think we need to reframe how we're looking at some of these issues and the narratives that have been spun around this population. I am happy to have these conversations offline.
- Stephanie Johnson: Do we have information about programs like Civic Works in broader Maryland?
  - Cindy: Civic Works is the program that I think about when I think about best practices, just because it covers so much—it covers solar, energy efficiency, community engagement. No other program like that immediately comes to mind. There might be other programs but at smaller scales.

### Public Comment

- Leia Sims: I wanted to respond to the last two things. Kimberly, really strong statements. I happen to be a woman who's been in the industry for over two decades, doing energy retrofits and training and all of this work related to making buildings safer, more efficient. I want to say that we had two wonderful presentations from two white men, and I think that if we want to make the industry drive the interest towards whether they're women, people of color, people from underserved communities, then we need to have people like that front and center speaking about their experiences, their wins in the industry. I recently created a course with Goodwill that was workforce development training for energy efficiency, building science, and heat pumps. It was a four-week hands-on training course. We had three women in the course and one of them I've been keeping in contact with. She has found work in the industry. She's a single mother of four children. It's the first time she's had a career path in her life and she's feeling fantastic about it. For that, there are opportunities for women. And the comment about previously incarcerated and going into residential

buildings, a lot of my work has been in residential buildings; I'm well-connected in the contractor world and as long as their record is nonviolent offense, typically employers are comfortable with bringing them onto their staff, if they have the right training. Wraparound services are super important, so making sure they have the right support to be successful when they do arrive on a job site.

- Jennifer Laszlo Mizrahi: I wanted to point out that as we look at full employment or as much employment as possible, that there's been a lot of focus on race and place and poverty, but if you want to look at who is disproportionately impacted by climate change, it's the 700,000+ people with disabilities who live in Maryland. 350,000 of whom are working age. This working age population has the lowest employment rate in Maryland and there are many partners that are helping these folks get jobs, different nonprofits. It's really important to include them in this conversation. For that to happen, these programs need to be fully accessible to people with disabilities and most of them are not.