



Joint Office of  
**Energy and  
Transportation**

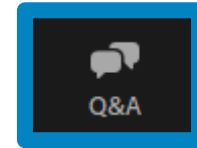
# **Workforce Development Tools and Resources**

3/5/2024

[driveelectric.gov](https://driveelectric.gov)

# Zoom Tips and Housekeeping

- Controls are located at the bottom of your screen. If they aren't appearing, move your cursor to the bottom edge.
- Submit questions using the “Q&A” window



# Disclaimer

**Notice:** This webinar is being recorded and may be posted on the Joint Office website or used internally.

If you speak during the webinar or use video, you are presumed to consent to recording and use of your voice or image.

# Agenda

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**Introduction** from the Joint Office

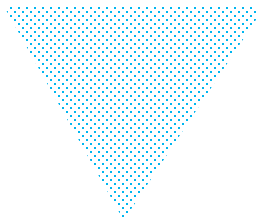
**Presentations** from panelists

**Panel Discussion**

**Audience Q&A**



# Mission and Vision



## Mission

To accelerate an electrified transportation system that is affordable, convenient, equitable, reliable, and safe.

## Vision

A future where everyone can ride and drive electric.

# BIL Programs Supported by the Joint Office

The Joint Office will provide unifying guidance, technical assistance, and analysis to support the following programs:



## **National Electric Vehicle Infrastructure (NEVI) Formula Program (U.S. DOT)**

\$5 billion for states to build a national electric vehicle (EV) charging network along corridors



## **Charging & Fueling Infrastructure (CFI) Discretionary Grant Program (U.S. DOT)**

\$2.5 billion in community and corridor grants for EV charging, as well as hydrogen, natural gas, and propane fueling infrastructure



## **Low-No Emissions Grants Program for Transit (U.S. DOT)**

\$5.6 billion in support of low- and no-emission transit bus deployments



## **Clean School Bus Program (U.S. EPA)**

\$5 billion in support of electric school bus deployments

# Technical Assistance Strategies

- Specialized assistance for **states, communities, Tribal Nations, transit agencies, and school districts.**
- **One-on-one meetings** with states.
- **Concierge service** (phone, email, web form) to efficiently route technical assistance requests.
- Technical assistance support team has **50 staff members across 10 organizations.**

## Technical Assistance

The Joint Office of Energy and Transportation (Joint Office) provides technical assistance on planning and implementation of a national network of electric vehicle chargers and zero-emission fueling infrastructure as well as zero-emission transit and school buses.

### States

The Joint Office provides technical assistance for [states](#) creating and executing [state plans](#) under the National Electric Vehicle Infrastructure Formula Program and the Charging and Fueling Infrastructure Discretionary Grant Program.

### Communities

The Joint Office provides technical assistance for [communities](#) planning and deploying electric charging and alternative fueling infrastructure under the Charging and Fueling Infrastructure Discretionary Grant Program.

### Tribal Nations

The Joint Office provides technical assistance to [tribal nations](#) electrifying their transportation systems. Learn more about zero-emission transportation [funding opportunities for tribal nations](#).

### School Districts

The Joint Office provides technical assistance to [school districts](#) applying for or receiving funding through the U.S. Environmental Protection Agency's Clean School Bus Program.

### Transit Agencies

The Joint Office provides technical assistance to [transit agencies](#) applying for or receiving funding through the Federal Transit Administration's Low or No Emission Vehicle Program.

### Riders

The Joint Office and partner agencies work to accelerate an electrified transportation system, helping communities increase access to electrified transportation options for [riders](#), including cars, buses, bicycles, scooters, and shared fleets.

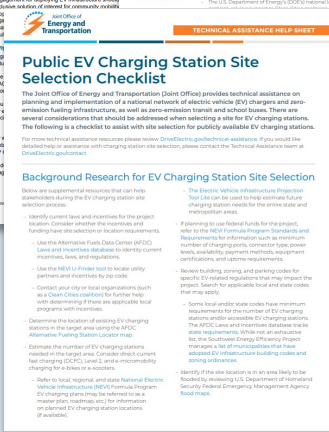
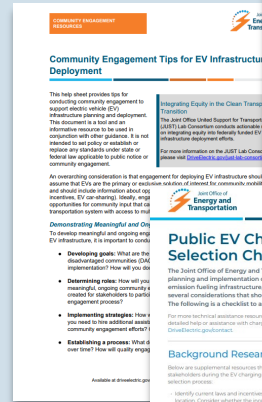
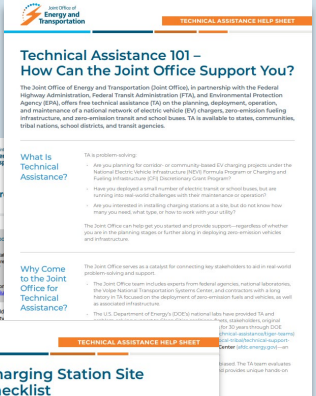
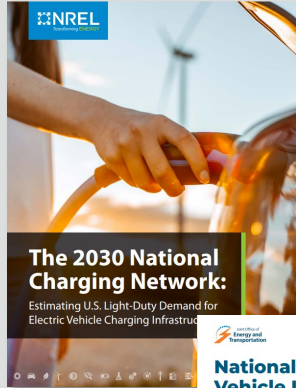
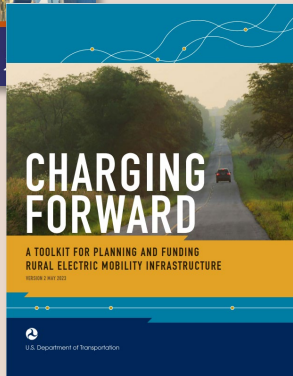
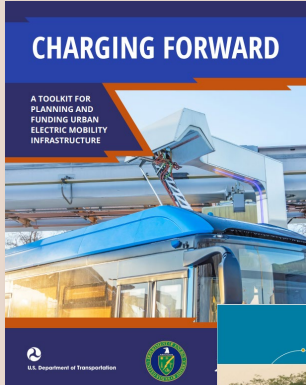
[driveelectric.gov/technical-assistance](https://driveelectric.gov/technical-assistance)

Concierge Service Contact Methods: 833-600-2751 | [doe-dot.io.ta@nrel.gov](mailto:doe-dot.io.ta@nrel.gov) | [driveelectric.gov/contact/](https://driveelectric.gov/contact/)

# Rural and Urban EV Toolkits

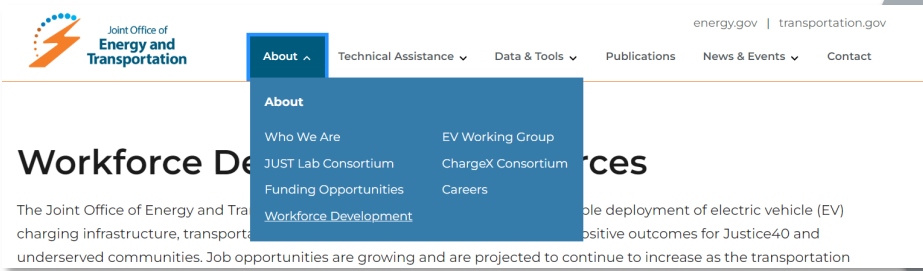
# Forecasts and Reports

# Help Sheets and Checklists

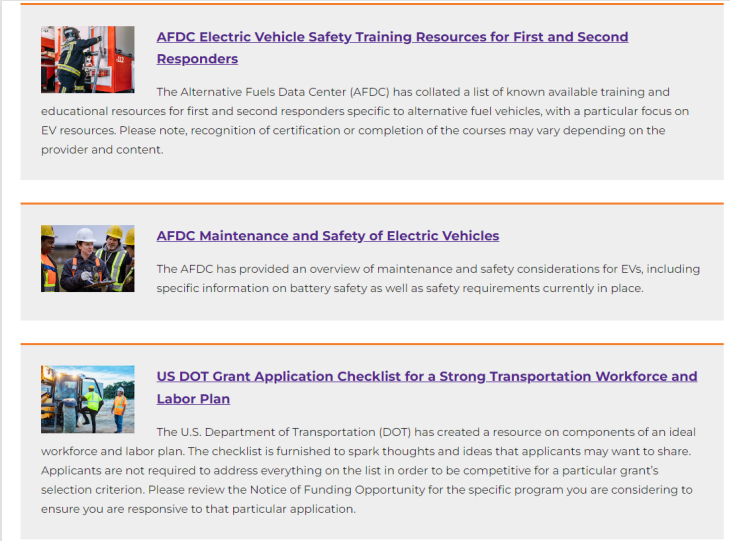




# \*NEW\* Workforce Development Web Content



The screenshot shows the website header for the Joint Office of Energy and Transportation. The logo is on the left, and the URL "energy.gov | transportation.gov" is on the right. A navigation menu is visible with "About" selected, which has opened a dropdown menu. The dropdown menu lists "About", "Who We Are", "Funding Opportunities", and "Workforce Development". The "Workforce Development" option is highlighted. Below the menu, the text "Workforce Development" is partially visible, along with a paragraph starting "The Joint Office of Energy and Transportation..."



The image shows three content cards from the website, each with a small image and a text block. The first card is titled "AFDC Electric Vehicle Safety Training Resources for First and Second Responders" and features an image of a person in a fire suit. The second card is titled "AFDC Maintenance and Safety of Electric Vehicles" and features an image of two people in safety gear. The third card is titled "US DOT Grant Application Checklist for a Strong Transportation Workforce and Labor Plan" and features an image of a person in safety gear next to a vehicle.

**AFDC Electric Vehicle Safety Training Resources for First and Second Responders**  
The Alternative Fuels Data Center (AFDC) has collated a list of known available training and educational resources for first and second responders specific to alternative fuel vehicles, with a particular focus on EV resources. Please note, recognition of certification or completion of the courses may vary depending on the provider and content.

**AFDC Maintenance and Safety of Electric Vehicles**  
The AFDC has provided an overview of maintenance and safety considerations for EVs, including specific information on battery safety as well as safety requirements currently in place.

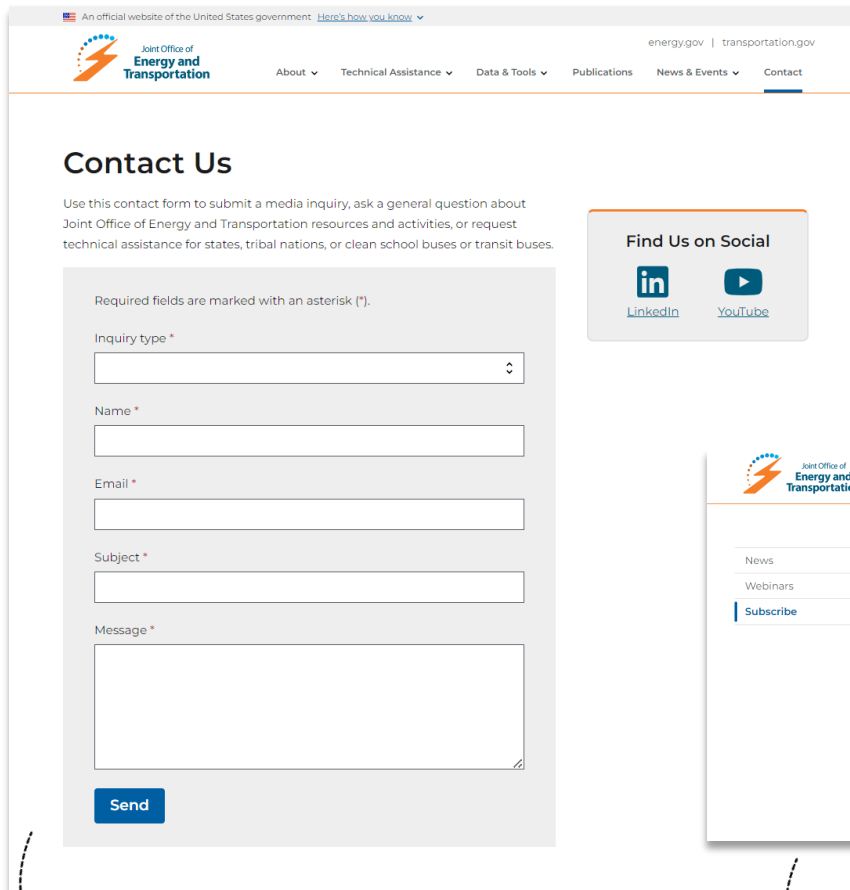
**US DOT Grant Application Checklist for a Strong Transportation Workforce and Labor Plan**  
The U.S. Department of Transportation (DOT) has created a resource on components of an ideal workforce and labor plan. The checklist is furnished to spark thoughts and ideas that applicants may want to share. Applicants are not required to address everything on the list in order to be competitive for a particular grant's selection criterion. Please review the Notice of Funding Opportunity for the specific program you are considering to ensure you are responsive to that particular application.

Visit [DriveElectric.gov/workforce-development](https://driveelectric.gov/workforce-development)

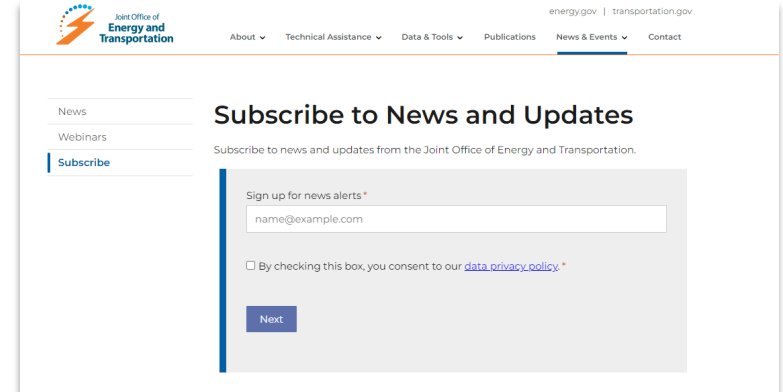
- Request assistance via online form

- Initial response within 48 hours

- General questions and feedback welcome!



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# Polling Questions

# Panelists



**Maya Goodwin**  
*Office of Energy Jobs,  
Department of Energy*



**Paige Shevlin**  
*Office of the Secretary,  
U.S. Department of  
Transportation*



**Rachael Nealer**  
*Joint Office of Energy and  
Transportation*



**Maya Goodwin**  
*Office of Energy Jobs,  
Department of Energy*



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Energy Jobs

# Workforce Development and the Creation of Good Quality Jobs in the Transition to Electrified Transportation

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Maya Goodwin

Senior Advisor, Workforce and Economic  
Opportunity Policy

March 5, 2024



## Presentation Overview

One of DOE's policy objectives is to revitalize the U.S. energy and manufacturing sectors and create millions of good quality jobs—especially unions jobs—for a diverse range of workers, in all parts of the nation.

In the transition to electrified transportation, DOE is supporting the creation of good quality domestic jobs, inclusive opportunities to benefits from those jobs, and ensuring community benefits of DOE's investments.

Today, I will highlight the following strategies:

- Community Benefits Plans;
- Key direct investments in clean energy workforce development open now; and
- DOE-facilitated, industry-led workforce development activities focused on building the EV battery workforce.

## Success is...

Greater clarity on strategies DOE is taking to support inclusive paths to good quality jobs that support the transition to electrified transportation, with highlights for ways various stakeholder groups can leverage these strategies, activities and investments.

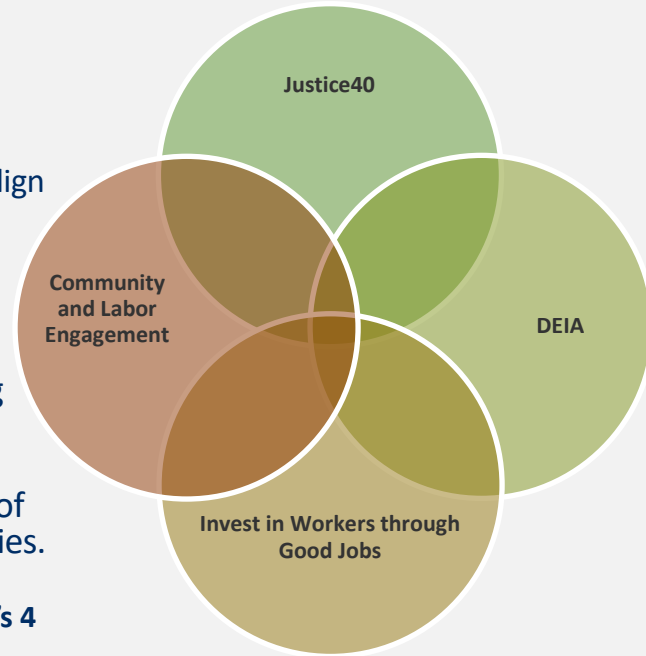
# Community Benefit Plans

All BIL and IRA discretionary funded programs require projects to incorporate a [Community Benefits Plan](#) (CBP).

The CBP framework is structured across four equally weighted topic areas that align with the following core policy priorities:

1. Engaging community and labor stakeholders;
2. Investing in America's workers through quality jobs;
3. Advancing diversity, equity, inclusion, and accessibility (including through recruitment and workforce training); and
4. Implementing Justice 40, a whole-of-government initiative that directs 40% of the overall benefits (including job opportunities) of certain Federal investments to flow to disadvantaged communities.

**Strong CBPs address quality jobs and inclusive workforce priorities in each of the CBP's 4 parts.**





## Re: electrifying transportation, see examples of how inclusive workforce development is being prioritized in CBPs.

- **Advanced Energy Manufacturing and Recycling Programs Selections:** As part of the BIL, DOE's MESC announced the selection of 7 projects, totaling \$275 million, to strengthen clean energy supply chains and accelerate domestic clean energy manufacturing. Re: electrifying transportation:
  - **MP Assets Corporation** will build a project, with a federal cost-share of \$100 million, in Virginia, to manufacture lithium-ion battery separators important for electric vehicle supply chains. MP Assets will provide 282 permanent jobs for double-distressed coal and Justice40 communities and will ensure **that at least 85% of full-time employees are from local Disadvantaged Communities (DACs)** by the completion of the project.
- **Regional Clean Hydrogen Hubs Program Selections:** As part of BIL, the H2Hubs program will form the foundation of a national clean hydrogen network that will contribute substantially to decarbonizing multiple sectors of the economy, like heavy industries (steel and cement production) and heavy-duty transportation. Example CBP:
  - **California Hydrogen Hub:** The California Hydrogen Hub will provide a blueprint for decarbonizing public transportation, heavy duty trucking, and port operations—key emissions drivers in the state and sources of air pollution that are among the hardest to decarbonize. With up to \$1.2 billion in federal cost share, the project's CBP ([publicly accessible](#)) states the Hub **will require Project Labor Agreements for every project** as well as Community benefits plan for every project, required to be **1% of each project's total cost** - a value of \$150M for CB and **\$229M for workforce/education**.

**Relevant Open FOA:** \$3.5 billion program to boost domestic production of advanced batteries and battery materials. Full applications due March 19, 2024. (Second phase of a \$6 billion program). CBPs required, like all other BIL and IRA discretionary programs.

# Key direct investments in workforce development open now

- **Clean energy & Manufacturing Workforce Training Grant Program Open Now:** DOE is expanding its support for high-quality clean energy and manufacturing workforce training programs through the **Industrial Assessment Center Program**. Using funds from BIL, DOE is seeking to establish new IACs at workforce training institutions across the country, including labor unions, community colleges, and trade schools.
  - **Application options can serve programs at different stages:**
    - Planning and Capacity-Building (up to \$200,000): One-year awards for workforce programs new to the industrial sector to pilot training approaches, develop new employer partnerships, and learn more about the IAC Program
    - Execution and Scale (up to \$2,000,000): Three-year awards for existing manufacturing and clean energy training programs to expand their hands-on training and provide technical assistance (TA) to local manufacturers
    - Consortia (up to \$7,000,000): Three-year awards for umbrella organizations to build and coach a cohort of IACs
  - **Optional concept papers due March 28 and applications due May 16.**
- **DOL Registered Apprenticeship Grant Program Open Now, with clean energy and supply chain sectors as two areas of focus:**
  - DOL announced nearly \$200 million in grants to support public-private partnerships that expand, diversify and strengthen Registered Apprenticeship, prioritizing projects in high-demand sectors and occupations.
  - Applications for both the 2<sup>nd</sup> round of Apprenticeship Building America and State Apprenticeship Expansion Formula grants are **due in April**.

# DOE-facilitated, Industry-led Workforce Development Initiatives

- **Battery Workforce Challenge collegiate competition is a three-year engineering competition that challenges North American universities and community college partners to design, build, test and integrate an advanced EV battery pack into a Stellantis vehicle.**
  - This is a government and industry partnership (led by DOE's Vehicle Technologies Office) co-sponsored by Stellantis) to build the next generation of engineers, technicians, and workers to address the unprecedented demand for a domestic EV/Battery workforce. Stellantis will provide each competing team with a production vehicle, vehicle components, seed money, technical mentoring and operational support.
- **Battery Workforce Initiative (BWI) set out to address the challenge and opportunity of unprecedented demand for skilled workers in battery manufacturing, a sector projected to grow nearly 20x from 2021 to 2030.\***
  - BWI is a partnership between DOE (led by Office of Energy Jobs), DOL, AFL-CIO, and other organizations to convene battery industry organizations in a sectoral workforce strategy to advance the development of training by sharing non-proprietary requirements for high-demand occupations. The initiative includes employer-based testing and validation programs that will test the effectiveness of draft training for high-priority job positions. The draft training will be used to develop a DOL-approved credential and shared with community colleges and other training providers.

\*Source: DOE's VTO



**Paige Shevlin**  
Office of the Secretary,  
U.S. Department of Transportation

# DOT Initiatives on Workforce Development

## Construction workforce:

- Recently [released comprehensive recommendations](#) on how to bring underrepresented populations into the construction workforce.
- For all competitive grants, including CFI, applicants can include workforce development for jobs on the project in their budget requests.
- States can use any portion of their highway formula funds for workforce development. See this [guidance](#) and [this fact sheet](#) for more information and ideas for how states can use the funding.

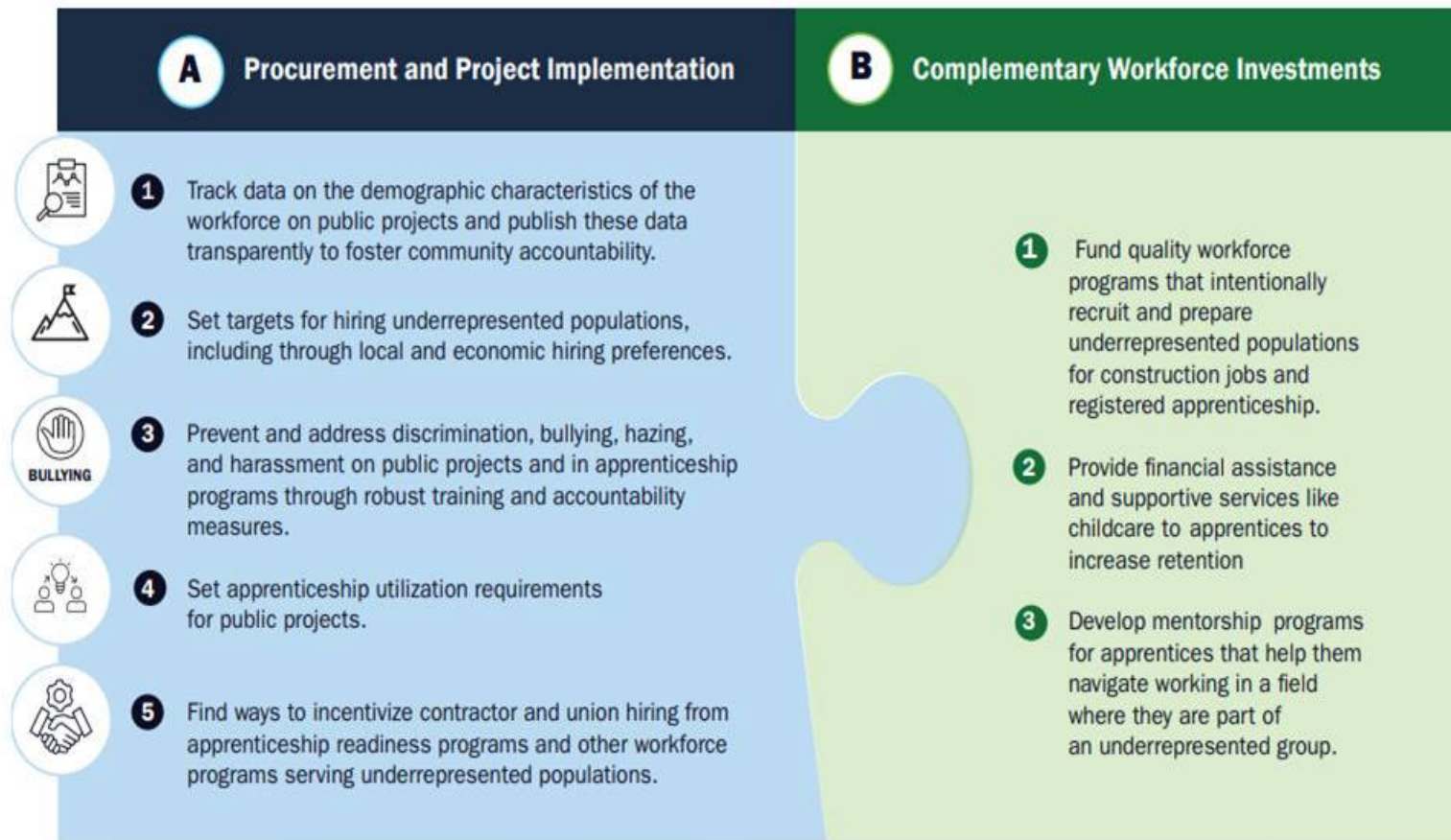
## Transit workforce:

- The low/no program has a 5% set aside for workforce development which has been maximized with almost all transit agencies taking advantage of the full 5%. FTA has awarded over \$90 million for workforce development across the two rounds of low/no grants.

## General workforce resource:

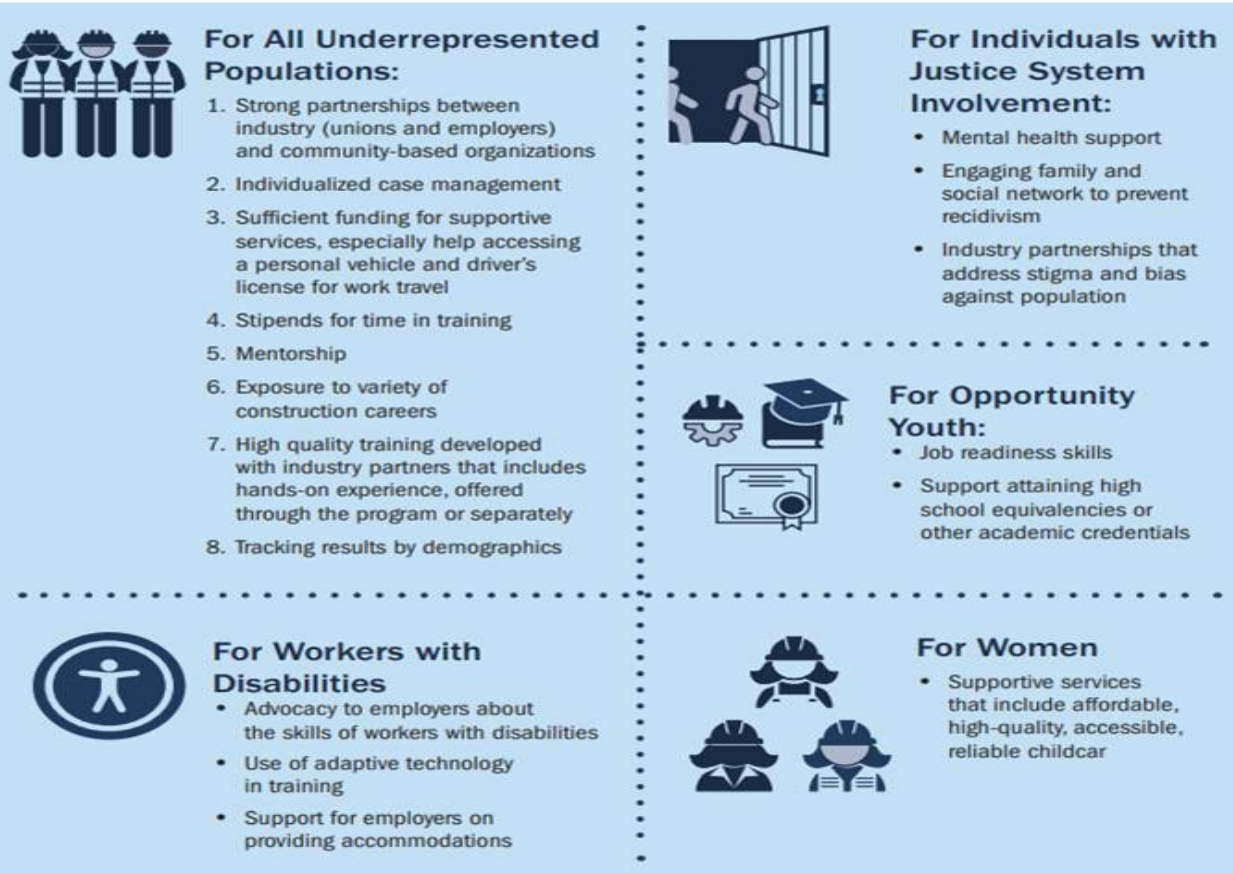
- DOT and the Department of Labor worked together to produce [a fact sheet on how state transportation agencies can support apprenticeship and workforce development for infrastructure projects](#), including NEVI.

**Figure 1: Recommendations for States and Local Government Transportation Entities**





**Figure 2: Characteristics of Quality Workforce Programs that Get Underrepresented Individuals into Construction Jobs or Apprenticeships**



# National Electric Vehicle Infrastructure Standards and Requirements

- All electricians installing, operating, or maintaining EV chargers must meet one of the following requirements:
  1. a certificate from the EVITP program
  2. graduated or received a continuing education certificate from a registered apprenticeship program for electricians that includes charger-specific training and is developed as a part of a national guideline standard approved by the Department of Labor in consultation with the Department of Transportation.
- Independent Electrical Contractors (IEC) has applied to DOL to have their current national guideline standard registered apprenticeship program updated to include EV curriculum.
- Any other workforce programs seeking to be approved to meet the requirements of the NEVI rule would need to be approved for a National guideline standard. These standards must be submitted a sponsoring labor union, trade or industry association, employer, workforce intermediary, education provider, or other organizations with **national scope.**





**Rachael Nealer**  
Joint Office of Energy and Transportation

# Ride and Drive Electric Funding

## Announced in January 2024:

- \$46.5 million
- 30 projects
- 16 states



# Ride and Drive Electric Funding Topic Areas

## 1. Enhancing EV Charging Resiliency

## 2. Equitable Access and Opportunity in Electrification

2a: Community-Driven Models for Electric Vehicle Charging Deployment

2b: Workforce Development

## 3. Improving EV Charging Performance and Reliability

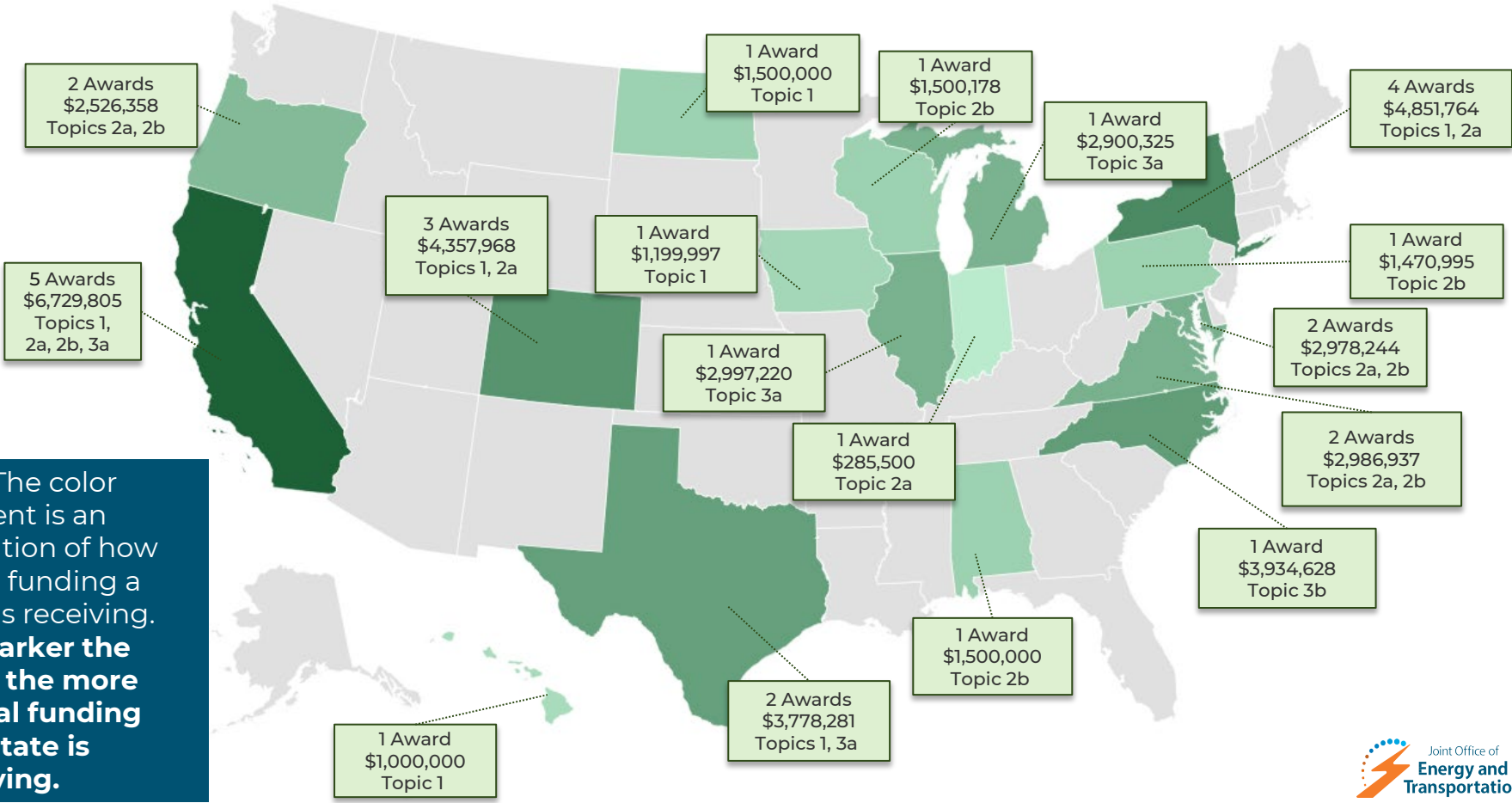
3a – Increasing Commercial Capacity for Testing and Certification of High-Power EV Chargers

3b – Validating High-Power EV Charger Real-World Performance and Reliability



# Overall Breakdown of Joint Office Funding Across All States

**KEY:** The color gradient is an indication of how much funding a state is receiving. **The darker the color, the more federal funding that state is receiving.**



# Roll-up on Workforce Development Projects



7

Projects across  
seven states and  
D.C.

\$9.9M

In federal cost  
share

30

Partner  
organizations  
involved

# Topic 2b - Workforce Development



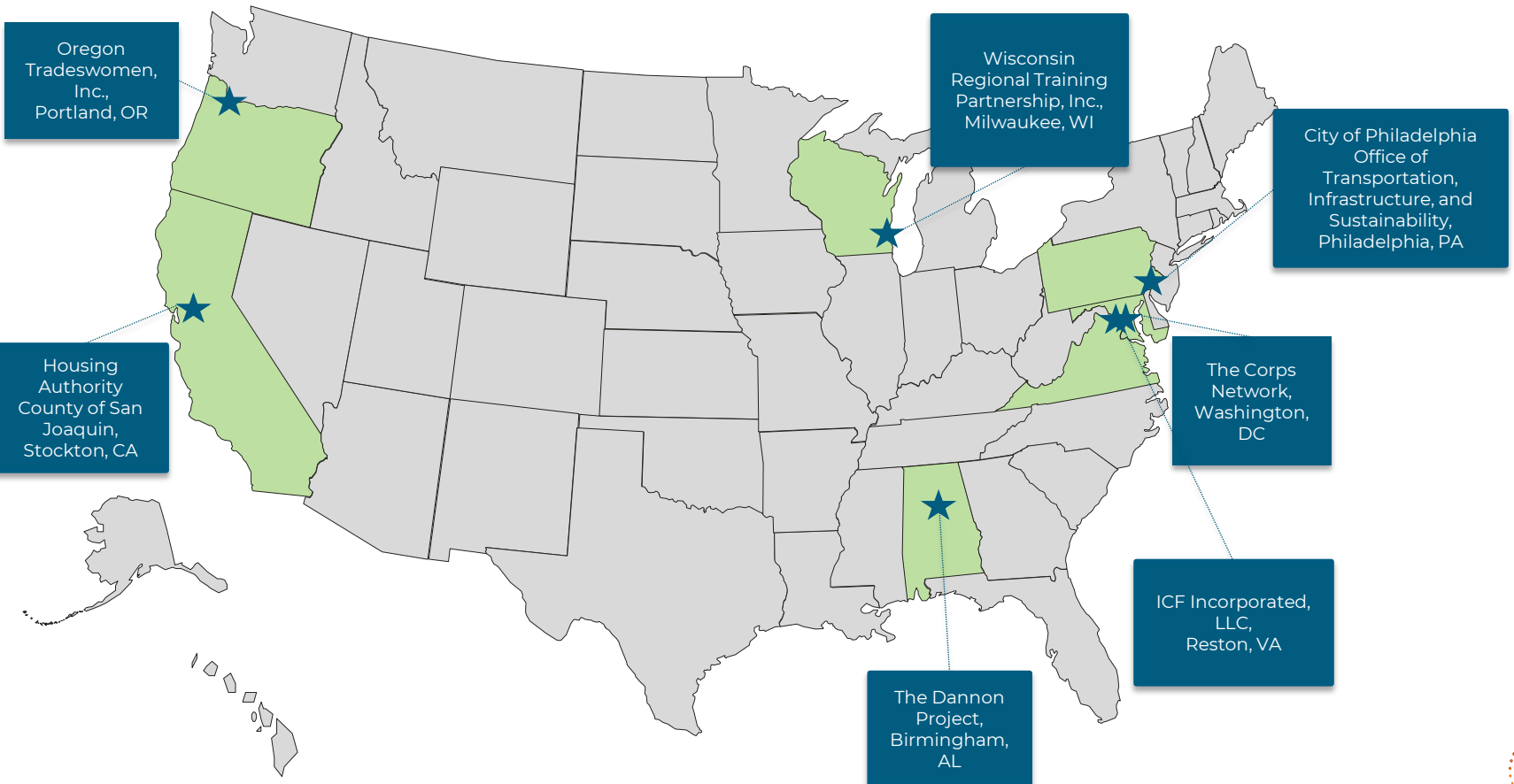
## The portfolio of selected projects will:

- Support a diverse and highly skilled workforce within the electrified transportation industry to deploy and maintain EV charging-related equipment including equipment that will be supported by the **FHWA NEVI and CFI grant programs.**

## Key outcome of interest:

- Expanded access to **career-track training and employment** in EVSE installation and maintenance work for a diversified pipeline of individuals.

# Topic 2b on Workforce Development Selectee Location Map



# Example Projects



<b>Recipient</b>	<b>Oregon Tradeswomen, Inc.</b>
<b>Project Name</b>	Preparing Diverse Women for Oregon's Transportation Electrification Workforce
<b>Federal Share</b>	\$1,256,363
<b>Project Overview</b>	Recruit and prepare BIPOC and white women for electrical apprenticeship, and train diverse IBEW Local 48 electricians with EVITP certification.
<b>Project Partners</b>	<i>Utility Partners:</i> Portland General Electric <i>Other Partners:</i> Metropolitan Alliance for Workforce Equity, Oregon Department of Transportation, NECA/IBEW Local 48 Electrical Training Center, & Worksystems



# Example Projects

WRTP | BIG STEP

<b>Recipient</b>	<b>Wisconsin Regional Training Partnership, Inc.</b>
<b>Project Name</b>	EV-Skilled Trades Employment Program (EVSTEP)
<b>Federal Share</b>	\$1,500,178
<b>Project Overview</b>	Create equitable career pathways for participants, by using pre-apprenticeship programs associated with EV Charging that include supportive services, direct pathways to union partners for apprenticeship and access to additional training, and industry placement. By the end of the project 200 people will have been exposed to employment opportunities and 100 people will have begun training.
<b>Project Partners</b>	Milwaukee Urban League, The Way Out, My Way Out, EmpowHer

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# So, what happens next??

- ✓ **January 2024 – Public Announcement of Selections**
- **Complete Project Negotiations**
- **Summer 2024 – Summer 2026 – Project Period**
  - 24-month project period
  - 3b project has a 30-month project period
  - Opportunity to highlight project success stories!
- **Summer 2026– Project Closeout**



# Interested in Learning More?

## Funding Opportunities

Securing funding is critical to the success of efforts to deploy a network of electric vehicle chargers, zero-emission fueling infrastructure, and zero-emission transit and school buses.

Future funding opportunities for Joint Office of Energy and Transportation (Joint Office) projects may become available from the U.S. Department of Energy (DOE).

The Joint Office provides information and resources about current funding opportunity announcements (FOAs), requests for information, and links to related opportunities from other DOE offices and federal organizations.

### Funded Projects

The Joint Office made available \$46.5 million from President Biden's Bipartisan Infrastructure Law for projects that bolster America's electric vehicle (EV) charging infrastructure. [The 30 projects](#) across 16 states and Washington, D.C., will ensure convenient and efficient EV infrastructure for drivers.

Learn about [key considerations from past DOE-funded projects](#) on curbside EV charging, EV car share, EV charging for multifamily housing, and EV mobility hubs.

Follow this link



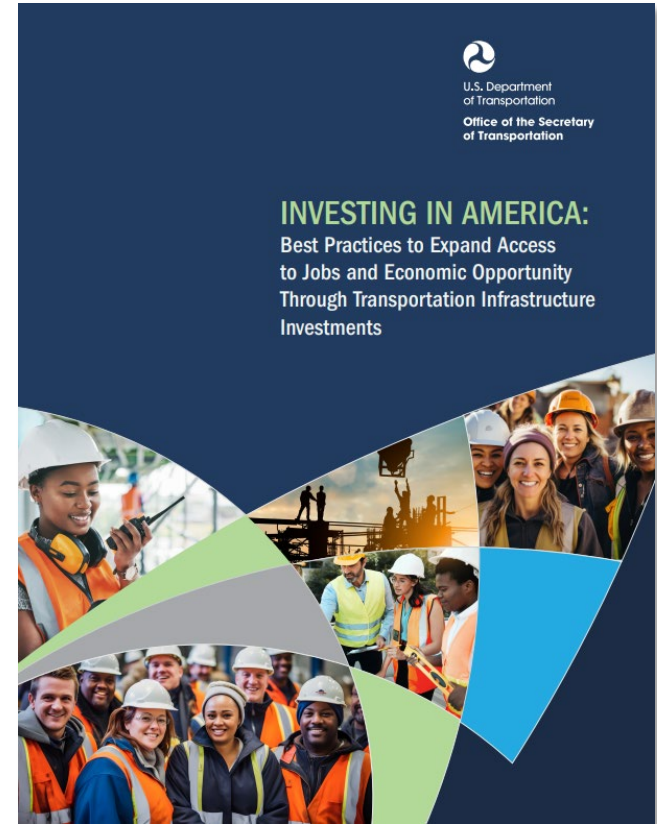
Visit [DriveElectric.gov/funding-opportunities](https://driveelectric.gov/funding-opportunities)



# Panel Discussion and Audience Q&A

# Resources

- [Best Practices to Expand Access to Jobs and Economic Opportunity Through Transportation Infrastructure Investments](#)
- [Workforce Development Resources · Joint Office of Energy and Transportation \(driveelectric.gov\)](#)
- [About Community Benefits Plans | Department of Energy](#)
- [Battery Workforce Initiative | netl.doe.gov](#)
- [About the Battery Workforce Challenge – Advanced Vehicle Technology Competitions \(avtcseries.org\)](#)



# Thank you!

*Today's Presentation:*  
Workforce Development Tools and  
Resources

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