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From 2020 to 2023, the National Association of State Energy Officials (NASEO) participated as a partner in the [Better Buildings Workforce Accelerator](#) (BBWA). The BBWA is a Department of Energy initiative seeking to raise the level of building science and energy efficiency knowledge in the nation's building-related workforce. Through the BBWA, DOE engaged industry partners in activities that build interest and awareness, streamline pathways, and improve skills for people pursuing green building careers.

The Markle-Eno-NASEO initiative developed the report, *Realizing the Workforce Potential of Infrastructure Investments: State Strategies to Advance Job Quality and Build Inclusive Workforces in Transportation and Clean Energy*, which outlines a framework of actionable strategies for state agencies to leverage federal funds for infrastructure workforce development.

**About the Partner**

NASEO is the only national non-profit association for governor-designated energy officials from 56 states and territories. The association was established in 1986 to facilitate peer learning among state energy officials, serve as a resource for and about State Energy Offices, and advocate for the interests of the State Energy Offices to Congress and federal agencies.

NASEO organizes regional coordination among state energy officials, works to develop multi-state programs to leverage resources, and facilitates regular communication through its annual Energy Policy Outlook Conference and Annual Meeting. Members are organized through committees, task forces, and advisory groups to explore issues like energy financing, energy jobs, equity, transportation, and more. NASEO regularly releases publications and hosts workshops on topics including energy efficiency, grid-interactive efficient buildings, resilience, microgrids, and solar energy.

**About the Project**

Co-led by NASEO, the Markle Foundation and the Eno Center for Transportation, the 2022 initiative brought state infrastructure agencies, specifically transportation or energy agencies, together with their counterpart state workforce agencies in six states. The Markle-Eno-NASEO initiative focused on transportation in California, Illinois, and Indiana, and opportunities for clean energy in Colorado, Massachusetts, and Pennsylvania. The goal of the initiative was to explore opportunities for state agencies to leverage incoming federal funds through the [Infrastructure Investment and Jobs Act of 2021 \(IIJA\)](#) and [Inflation Reduction Act of 2022 \(IRA\)](#) in ways that advance the development of skilled, diverse, and well-supported infrastructure workforces.

**AT A GLANCE**

- ▶ **Partner:** National Association of State Energy Officials
- ▶ **Project:** A 2022 report, "*Realizing the Workforce Potential of Infrastructure Investments: State Strategies to Advance Job Quality and Build Inclusive Workforces in Transportation and Clean Energy*", developed by the Markle-Eno-NASEO initiative.
- ▶ **Program Location:** California, Colorado, Illinois, Indiana, Massachusetts, Pennsylvania
- ▶ **Technology:** Renewable Energy
- ▶ **Audience Served:** State Governments
- ▶ **Better Buildings Workforce Accelerator Focus Area(s):** Streamline Career Pathways

The Markle-Eno-NASEO report emphasizes the opportunities for states, including specific funding streams and a framework for priority actions.

## Challenges

The Infrastructure Investment and Jobs Act of 2021 (IIJA) directs approximately \$591 billion and \$75 billion to transportation and clean energy, respectively, over a five-year period. The Inflation Reduction Act of 2022 (IRA) invests around \$369 billion for U.S. energy infrastructure modernization, building upgrades, and technology deployment through 2032.

Demand for U.S. infrastructure workers, particularly in transportation and clean energy, is poised for significant growth due to these new federal investments. Anticipated growth in transportation and clean energy work will require broader, more accessible paths to join these workforces.

The IIJA and IRA provide unprecedented levels of federal funding for infrastructure that states can use to build and scale a broad, inclusive, and qualified workforce.

**Currently, the state infrastructure agencies that will receive most of the federal funding intended for states may not view workforce or job quality as one of their primary objectives.**

If deliberate and coordinated action is taken, this level of funding can support good quality jobs that could offer economic mobility to many people, including demographic groups that have been underrepresented in these sectors.

## Solutions

The Markle-Eno-NASEO initiative facilitated a series of discussions on existing agency collaboration and

surfaced priorities the agencies have for supporting the workforce needed to implement IIJA and IRA infrastructure and economic goals.

The final report and framework (see diagram below) include relevant models already in use around the country as well as critical actions state agencies can take to prioritize job quality and inclusive workforce development practices.

The first category for action is to deepen cross-agency coordination to align workforce investments with jobs. Key steps include:

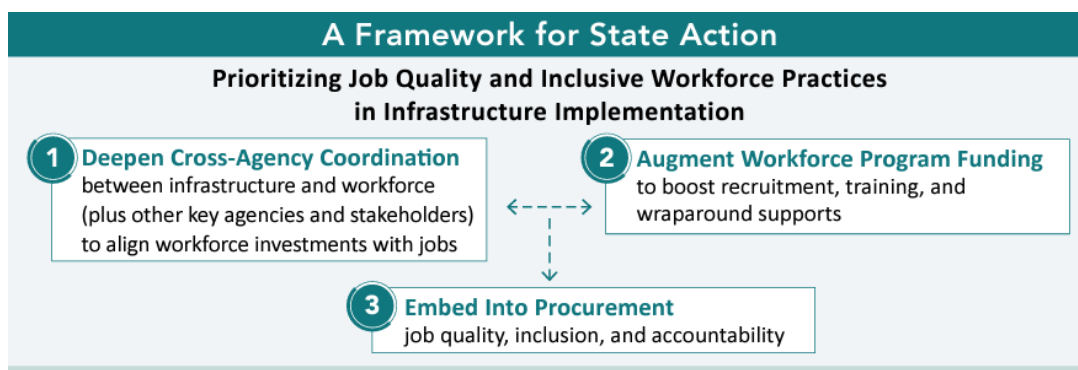
- ▶ Engaging critical stakeholders
- ▶ Formalizing cross-agency partnership through a memorandum of understanding
- ▶ Creating dedicated staff positions

The second category for action is to augment workforce program funding. Potential strategies include:

- ▶ Identification of priorities through planning and gap analysis
- ▶ Scaling high-quality training programs
- ▶ Strengthening recruitment activities
- ▶ Funding supportive services to overcome barriers associated with completion of training programs

The third category for action is to embed workforce considerations, such as job quality, inclusivity, and accountability, into procurement processes. Recommended actions include:

- ▶ Use of vehicles such as Project Labor Agreements to incorporate job quality and workforce inclusion priorities into projects



- ▶ Embed preferences such as apprenticeship utilization requirements to target priorities
- ▶ Understand factors that have hindered success in the past

## Impacts and Outcomes

The facilitated discussions with state agencies informed the final 60-page report. The report lays out the scale of the opportunity at hand, identifies critical stakeholders and key roles, and details funding opportunities, key lessons, and a framework for state action.

Lessons learned from the discussions with state agencies are summarized below:

- ▶ There is a significant opportunity to facilitate partnerships and kick-start coordination between state infrastructure, workforce development, additional state agencies, and other critical stakeholders.
- ▶ Prioritization of workforce development and job quality in infrastructure implementation constitutes, in many cases, a significant shift from the status quo approach. Workforce development investments are frequently seen as secondary objectives compared to agency goals of completing projects with safety, timeline, and cost.
- ▶ State infrastructure agencies are often interested in incorporating workforce inclusion and job quality standards into the terms of their spending, though doing so will involve an intentional shift and raise complex questions.

The report can be used by states to understand which funding types in the IIJA and IRA can be spent directly on workforce development and which funds can be leveraged to incorporate workforce priorities into procurement processes. The report also helps states by distinguishing between formula and competitive grants and highlighting the importance of leveraging existing workforce development system funds and resources.

Following the release of the report, NASEO and the Markle Foundation hosted a webinar to share the takeaways from the initiative and highlight next

steps taken by state partners. For example, The Colorado Energy Office hired a Climate Workforce Development Manager to help build the clean energy workforce and coordinate with other agency partners in Colorado. NASEO has also held follow-up conversations with additional State Energy Offices interested in applying the principles from the report to their funding strategy and program design and will continue to do so as states work to prepare the clean energy workforce for the historic opportunities created by the IIJA and IRA.

### Funding Opportunities for Clean Energy Workforce Development

#### 1. Opportunities for states to augment clean energy workforce development through direct expenditures

Section No.	Grant or Program Name	Funding Amount
IIJA Section 40551	<b>Weatherization Assistance Program<sup>198</sup></b> <b>Description:</b> The Weatherization Assistance Program received an influx of new funding through IIJA, which will be distributed to State Weatherization Administrators through formula-based grants <sup>199</sup> . Along with new IRA incentives for home energy efficiency and electrification retrofits, this additional weatherization funding will increase demand for contractors, auditors, and electricians. IIJA flow-down requirements, including the Davis-Bacon prevailing wage requirement, will apply to the additional WAP funding, as will several DOE priorities, including “workforce development and diversity [and] inclusion and equity.” Applicants must also submit a Training and Technical Assistance (T&TA) plan, and each state will receive a T&TA allocation “to support workforce development activities” (\$550 million total distributed across all states). Eligible uses of the T&TA allocation include: “participation, travel, logistics of training and technical assistance activities and events.”	<b>\$3.5 billion (\$550 million for Training and Technical Assistance)</b>
IIJA Section 40503	<b>Energy Auditor Training Program</b> <b>Description:</b> Direct funding to states to cover “any cost associated with” energy audit training or certification during financial years 2022 to 2026. Up to 10 percent of grant funds can be used to pay wages to trainees during their training period. As part of the application, states must include a plan for training curriculum and the certifications provided, as well as the cost per trainee and proposed strategy for connecting trainees to job opportunities.	<b>\$40 million</b>
IRA Section 50123	<b>State-Based Home Energy Efficiency Contractor Training Grants</b> <b>Description:</b> State energy offices will administer these funds, which can be used for training, education, and certification costs for contractors tasked with implementing the home energy efficiency and electrification upgrades, as well as state partnership programs with nonprofits.	<b>\$200 million</b>
IIJA Section 41007(c)(1)	<b>Advancing Equity Through Workforce Partnerships<sup>200</sup></b> <b>Description:</b> Award funding will “support multi-stakeholder high-road workforce development partnerships that help accelerate the deployment of solar energy while advancing the Administration’s priorities around worker empowerment, quality jobs with a free and fair choice for workers to join a union, and Energy and Environmental Justice (EJ) and Diversity, Equity, Inclusion, and Accessibility (DEIA) in the clean energy workforce.”	<b>\$10 million</b>
IIJA Section 40521	<b>Future of Industry Program and Industrial Research and Assessment Centers</b> <b>Description:</b> Funding for institutions of higher education, trade schools, community colleges, and union training programs to create or expand Industrial Research and Assessment Centers (IRACs). These centers help assess the needs of small- and medium-sized manufacturer plant sites and identify ways to improve the sites’ energy efficiency and environmental performance, while promoting new technologies and coordinating research and development and technical assistance. A portion of the new IIJA funding for the IRAC program will provide 50 percent federal cost share for internships and apprenticeships that help implement the goals of the IRACs. While state energy offices will not receive Section 40521 funds directly, they can help	<b>\$150 million</b>

Read the two-page [framework for state action](#), the five-page [executive summary](#), and the 60-page [full report](#) for more insights.

*This case study was developed with content from the Markle-Eno-NASEO report [Realizing the Workforce Potential of Infrastructure Investments: State Strategies to Advance Job Quality and Build Inclusive Workforces in Transportation and Clean Energy](#).*