

Notice of Intent (NOI) No. DE-FOA-0002968

DISCLAIMER: This NOI is for informational purposes only. The Department of Energy (DOE) is not seeking comments on the information in this NOI or accepting applications at this time. Any information contained in this NOI is subject to change.

This is a Notice of Intent to issue Funding Opportunity Announcement (FOA) No. DE-FOA-0002969

Bipartisan Infrastructure Law: State Manufacturing Leadership Program (Section 40534)

The United States Department of Energy (DOE) Office of Manufacturing and Energy Supply Chains (MESC) intends to issue a Funding Opportunity Announcement (FOA) titled "Bipartisan Infrastructure Law: State Manufacturing Leadership Program (Section 40534)." MESC intends to issue the FOA in the March 2023 timeframe, and the FOA will be funded by the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL).¹

On November 15, 2021, President Joseph R. Biden, Jr. signed the BIL, a once-in-a-generation investment in infrastructure, designed to modernize and upgrade American infrastructure to enhance United States competitiveness, drive the creation of good-paying union jobs, tackle the climate crisis, and ensure stronger access to economic, environmental, and other benefits for disadvantaged communities.² The BIL appropriates more than \$62 billion to DOE to ensure the clean energy future delivers true economic prosperity to the American people by:

- Investing in American manufacturing and workers, including supporting high-paying jobs with the free and fair choice to join a union, and effective workforce development to upskill incumbent, underrepresented, and dislocated workers.
- Expanding access to energy efficiency and clean energy for families, communities, and businesses.
- Delivering reliable, clean, and affordable power to more Americans.
- Building the technologies of tomorrow through clean energy demonstrations.

The anticipated FOA will support BIL Section 40534, which establishes the State Manufacturing Leadership Program (the "Program"). DOE anticipates that the FOA will award financial assistance in the form of cooperative agreements to States (including, but not limited to, state energy or

¹ Infrastructure Investment and Jobs Act, Public Law 117-58 (Nov. 15, 2021).

² Pursuant to E.O. 14008 and the Office of Management and Budget's Interim Justice40 Implementation Guidance M-21-28, DOE has developed a definition and tools to locate and identify disadvantaged communities. These resources can be located at https://energyjustice.egs.anl.gov/. DOE will also recognize disadvantaged communities as defined and identified by the White House Council on Environmental Quality's Climate and Economic Justice Screening Tool (CEJST), which can be located at https://screeningtool.geoplatform.gov/.

economic development offices) as defined in 2 CFR 200.1 to (1) provide assistance to small- and medium-sized manufacturers (SMMs)³ to implement smart manufacturing technologies and practices and (2) to facilitate access to high-performance computing (HPC) resources for SMMs.⁴

Small firms account for approximately 99 percent of U.S. manufacturing enterprises, contribute more than \$1 trillion in gross revenue, and provide more than five million U.S. jobs.⁵ But domestic SMMs often fall behind larger firms in their technology investments, in part because of demand, financing, and knowledge challenge. The result is that the largest manufacturers' labor productivity is 58 percent higher than their middle-sized counterparts; a significant part of this gap is explained by small firms' lack of technology adoption.⁶

By increasing deployment of smart manufacturing technologies among domestic SMMs, this Program supports the Administration's goals of catalyzing American leadership and global competitiveness in the clean energy economy and investing in the American manufacturing workforce. Smart manufacturing technologies provide real-time data and insight. They can reduce costs by optimizing energy management, energy productivity, and energy efficiency; they can facilitate the adoption of advanced industrial robotics, artificial intelligence, and cybersecurity technologies that are critical to resilience and competitive edge; and they may increase product quality and sustainability by allowing manufacturers to sense and then correct materials anomalies.⁷

The Program will support new or expanded State programs (led, for example, by state energy or economic development offices) that exhibit leadership in accelerating deployment of smart manufacturing technologies by:

 promoting deployment of smart manufacturing technologies to SMMs based on national, state, and regional economic development and supply chain priorities, including those focused on the development and deployment of clean energy technologies that align with those priorities;

³ Small and medium-sized manufacturers (SMMs) are defined for purposes of this program as (1) falling within North American Industry Classification System (NAICS) codes 31-33; (2) having gross annual sales of less than \$100,000,000; (3) having fewer than 500 employees at the plant site; and (D) having annual energy bills totaling more than \$100,000 and less than \$3,500,000. BIL § 40531(6).

⁴ BIL § 40534(d).

⁵ U.S. Small Business Administration Manufacturing Office, <u>https://www.sba.gov/about-sba/organization/sba-initiatives/support-manufacturing-businesses</u>.

⁶ National Bureau of Economic Research, Automation and the Workforce: A Firm-Level View from the 2019 Annual Business Survey (February 2022).

⁷ U.S. Department of Energy, National Smart Manufacturing Strategic Plan to Facilitate More Rapid Development, Deployment and Adoption of Smart Manufacturing Technologies (July 2022).

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- effectively connecting SMMs with a diverse coalition of public and private technical assistance providers, including, for example, the Manufacturing USA institutes,⁸ the National Laboratories, Industrial Assessment Centers (IACs), NIST Manufacturing Extension Partnerships (MEPs) and institutions of higher education (IHEs);
- partnering with labor and workforce organizations to expand and diversify the smart manufacturing talent pool;
- developing, scaling, and promoting smart manufacturing training that can foster innovation on SMM shop floors;
- identifying and providing financial assistance to facilitate SMMs' access to and implementation of smart manufacturing resources and technologies;
- setting targets and goals for program participation and desired outcomes by and across the state applicant; and
- identifying specific disadvantaged communities and entities for participation in SMMs' smart-manufacturing programs, including disadvantaged communities⁹ and displaced workers; and establishing means for long-term sustainability of program resources and results.

In designing programs, States will be encouraged to familiarize themselves with the <u>National</u> <u>Strategy for Advanced Manufacturing</u>,¹⁰ as well as with resources available through <u>Manufacturing USA</u>.

In accordance with BIL Section 40126, applicants selected for award negotiations must submit an acceptable cybersecurity plan to DOE prior to receiving funding.¹¹ These plans are intended to foster a cybersecurity-by-design approach for BIL efforts. The Department will also use these plans to ensure effective integration and coordination across its research, development, and demonstration programs. A cybersecurity plan is NOT required as part of the application

⁸ Manufacturing USA was created in 2014 to secure U.S. global leadership in advanced manufacturing by connecting people, ideas, and technology. Manufacturing USA institutes convene business competitors, academic institutions, and other stakeholders to test applications of new technology, create new products, reduce cost and risk, and enable the manufacturing workforce with the skills of the future. Manufacturing USA institutes include the <u>Clean Energy Smart Manufacturing Innovation</u> <u>Institute (CESMII)</u>, founded in 2016 in partnership with DOE's Office of Energy Efficiency and Renewable Energy (EERE) and focusing on acceleration of smart manufacturing adoption, and the <u>Cybersecurity Manufacturing Innovation Institute (CyManII)</u>, formed in 2020 also in partnership with DOE's EERE, which serves as a critical counterpart introducing a cybersecure energy-ROI for energy efficient manufacturing and supply chains.

⁹ The Justice40 Initiative, established by E.O. 14008, set a goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities. The Justice40 Interim Guidance defines benefits as direct and indirect investments (program outcomes) that positively impact disadvantaged communities and provides examples starting on page 4. *See* Memorandum on Interim Implementation Guidance for the Justice40 Initiative at 4 (July 20, 2021), <u>https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf</u>. DOE's definition of disadvantaged communities, which should be used to determine benefits calculations, is available at: <u>https://www.energy.gov/diversity/office-economic-impact-and-diversity</u>.

¹⁰ Subcommittee on Advanced Manufacturing Committee on Technology, National Science and Technology Council, National Strategy for Advanced Manufacturing, October 2022.

¹¹ 42 U.S.C. § 18725

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submission for this FOA, but all projects selected under this FOA will be required to submit a cybersecurity plan during the award negotiation phase.

The Department recommends using open guidance and standards such as the National Institute of Standards and Technology's (NIST) Cybersecurity Framework (CSF) and the DOE Cybersecurity Capability Maturity Model (C2M2).¹² The cybersecurity plan created pursuant to BIL section 40126 should document any deviation from open standards, as well as the utilization of proprietary standards where the awardee determines that such deviation is necessary.

- Cybersecurity plans should be commensurate to the threats and vulnerabilities associated with the proposed efforts and demonstrate the cybersecurity maturity of the project.
- Cybersecurity plans may cover a range of topics relevant to the proposed project, e.g., software development lifecycle, third-party risks, and incident reporting.
- At a minimum, cybersecurity plans should address questions noted in BIL section 40126 (b) 'Contents of Cybersecurity Plan'.¹³

The FOA will require development of a Community Benefits Plan that sets forth the applicant's actionable framework to ensure Federal investments support sustainable community economic development and prosperity through actions such as community and labor engagement; investing in the American workforce; developing diversity, equity, inclusion, and accessibility strategies; and commitment to the Justice40 Initiative. To create this plan, States should prepare to meaningfully engage with labor unions, Tribal communities, and community stakeholders, as well as identify ways in which State programs will further the goal of the Justice40 Initiative that 40% of the overall benefits of clean energy and energy efficiency investments flow to disadvantaged communities. DOE will incorporate the Community Benefits Plan into the award as part of the project requirements, and the recipient will be required to meet the elements proposed in the plan. Guidance on specific application and reporting requirements will be included in the FOA.

¹³ 42 U.S.C. § 18725

¹² NERC critical infrastructure protection (CIP) standards for entities responsible for the availability and reliability of the bulk electric system. NIST IR 7628: 2 Smart grid cyber security strategy and requirements. NIST SP800-53, Recommended Security Controls for Federal Information Systems and Organizations: Catalog of security controls in 18 categories, along with profiles for low-, moderate-, and high-impact systems. NIST SP800-82, Guide to Industrial Control Systems (ICS) Security. NIST SP800-39, Integrated Enterprise-Wide Risk Management: Organization, mission, and information system view. AMI System Security Requirements: Security requirements for advanced metering infrastructure. ISO (International Organization for Standardization) 27001, Information Security Management Systems: Guidance on establishing governance and control over security activities (this document must be purchased). IEEE (Institute of Electrical and Electronics Engineers) 1686-2007, Standard for Substation Intelligent Electronic Devices (IEDs) Cyber Security Capabilities (this document must be purchased). DOE Cybersecurity Capability Maturity Model (C2M2).

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Recipients should be aware that Davis-Bacon Act¹⁴ requirements will apply to this program.

	Anticipated Cost Match* Required	Anticipated Number of Awards	Anticipated Individual Award Value		Anticipated Total Funding Available	
	Required		Minimum	Maximum**		
	≥30%	15 to 30	\$1,000,000	\$2,000,000	up to \$50,000,000	

*"Cost matching" for the non-federal share is calculated as a percentage of the federal funds only, rather than the total project cost.

**The maximum Federal award size for individual awards is restricted to not more than \$2,000,000 and cannot be exceeded.

The period of performance for each award is restricted to not more than three (3) years and cannot be extended. DOE will evaluate all recipients on a semi-annual basis to determine the impact and effectiveness of funded programs and to guide States in improving their programs.

States will not be able to submit more than one application, nor are they eligible to receive more than one award.

This NOI is issued to make interested parties aware of MESC's intention to issue this FOA in the near term. All the information contained in this NOI is subject to change.

Submission and Registration Requirements for Full Application

MESC plans to issue the FOA in the March 2023 timeframe via the Clean Energy Infrastructure eXCHANGE website <u>https://infrastructure-exchange.energy.gov/</u>. If Applicants wish to receive official notifications and information from MESC regarding this FOA, they should register in Clean Energy Infrastructure eXCHANGE. When the FOA is released, applications will be accepted only through Clean Energy Infrastructure eXCHANGE.

In anticipation of the FOA being released, Applicants are advised to complete the following steps, which are **required** for application submission:

¹⁴ The BIL includes wage requirements and directs that all laborers and mechanics employed by contractors or subcontractors in the performance of construction, alteration, or repair work on a project assisted in whole or in part by funding made available through the BIL shall be paid wages at rates not less than those prevailing on similar projects in the locality. *See* BIL § 41101.

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• Register and create an account in the Clean Energy Infrastructure eXCHANGE at <u>https://infrastructure-exchange.energy.gov/</u>. This account will allow the user to apply to any open Clean Energy Infrastructure FOAs that are currently in Clean Energy Infrastructure eXCHANGE.

Potential applicants will be required to have a Login.gov account to access Clean Energy Infrastructure eXCHANGE. As part of the eXCHANGE registration process, new users will be directed to create an account in <u>Login.gov</u>. Please note that the email address associated with Login.gov must match the email address associated with the eXCHANGE account. For more information, refer to the Exchange Multi-Factor Authentication (MFA) Quick Guide in the <u>Manuals section</u> of eXCHANGE.

It is recommended that each organization or business unit, whether acting as a team or a single entity, <u>use only</u> one account as the contact point for each submission. Questions related to the registration process and use of the Clean Energy Infrastructure Exchange website should be submitted to: <u>InfrastructureExchangeSupport@hq.doe.gov</u>

- Register with the System for Award Management (SAM) at https://www.sam.gov. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually. Upon registration, SAM will automatically assign a Unique Entity ID (UEI).
- Register in FedConnect at <u>https://www.fedconnect.net/</u>. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at <u>https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect Ready Set Go.pdf</u>
- Register in Grants.gov to receive automatic updates when Amendments to a FOA are posted. However, please note that applications <u>will not</u> be accepted through Grants.gov. <u>http://www.grants.gov/</u>. All applications must be submitted through Clean Energy Infrastructure eXCHANGE.

Teaming List

DOE is compiling a Teaming Partner List to assist States in forming applications for this potential FOA. The Teaming Partner List allows organizations that may wish to participate in an application to express interest and explore potential partnerships.

• Updates to the Teaming Partner List will be available at Clean Energy Infrastructure eXCHANGE. The Teaming Partner List will be regularly updated to reflect new teaming

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partners that have provided their organization's information.

- SUBMISSION INSTRUCTIONS: Any organization that would like to be included on this list should submit the following information: Organization Name, Contact Name, Contact Address, Contact Email, Contact Phone, Organization Type, Area of Technical Expertise, Brief Description of Capabilities. Interested parties should e-mail the information to StateManufacturingLeadership@hq.doe.gov with the subject line "Teaming Partner Information."
- DISCLAIMER: By submitting a request to be included on the Teaming Partner List, the requesting organization consents to the publication of the above-referenced information. By enabling and publishing the Teaming Partner List, DOE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations are identifying themselves for placement on the Teaming Partner List. DOE will not pay for the provision of any information, nor will it compensate any applicants or requesting organizations for the development of such information.

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