FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT

Joint Office of Energy and Transportation
Through the Department of Energy (DOE)

Bipartisan Infrastructure Law (BIL) – Joint Office of Energy and Transportation: Communities Taking Charge Accelerator, Fiscal Year 2024 Funding Opportunity Announcement

Funding Opportunity Announcement (FOA) Number: DE-FOA-0003214
FOA Type: Amendment 000001
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FOA Issue Date:	April 16, 2024
Submission Deadline for Concept Papers:	May 20, 2024, 5:00 pm ET
Anticipated Date of Concept Paper Notification:	June 13, 2024
Submission Deadline for Full Applications:	July 16, 2024 5:00 pm ET
Expected Submission Deadline for Replies to Reviewer Comments:	August 30, 2024 5:00 pm ET
Expected Date for DOE Selection Notifications:	December 2024
Expected Timeframe for Award Negotiations:	December 2024 – April 2025

- Applicants must submit Concept Papers by 5:00 pm ET on the due date listed above to be eligible to submit a Full Application. Late applications will not be accepted. Applicants are highly encouraged to submit prior to the deadline.

- To apply to this FOA, applicants must register with and submit application materials through EERE eXCHANGE at https://eere-exchange.energy.gov/, EERE's online application portal.

- Applicants must designate primary and backup points of contact in EERE eXCHANGE with whom EERE will communicate to conduct award negotiations. If an application is selected for award negotiations, it is not a commitment to issue an award. It is imperative that the applicant/selectee be responsive during award negotiations and meet negotiation deadlines. Failure to do so may result in the cancelation of further award negotiation and rescission of the selection.

- **Unique Entity Identifier (UEI) and System for Award Management (SAM)** – Each applicant (unless the applicant is excepted from those requirements under 2 CFR 25.110) is required to: (1) register in the SAM at https://www.sam.gov before submitting an application; (2) provide a valid UEI number in the application; and (3) maintain an active SAM registration with current information when the applicant has an active federal award or an application or plan under consideration by a federal awarding agency. DOE may not make a federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time DOE is ready to make a federal award, DOE will determine that the applicant is not qualified to receive a federal award and use that determination as a basis for making a federal award to another applicant.

  Due to the high demand for SAM registrations and UEI requests, entity legal business name and address validations are taking longer than expected to process. Entities should start the SAM and UEI registration process as soon as possible. If entities have technical difficulties with the SAM registration or UEI validation process they should utilize the HELP feature on SAM.gov. SAM.gov will work entity service tickets in the order in which they are received and asks that entities not create multiple service tickets for the same request or technical issue. Additional entity validation resources can be found here: GSAFSD Tier 0 Knowledge Base - Validating your Entity.

AMENDMENTS

All amendments to the FOA are [HIGHLIGHTED] in the body of the FOA.

Amendment No.	Date	Description of Amendment
000001	07/01/2024	• Section I.B was updated with clarification examples in Topic 3 • Section II.A.i Estimated funding table was updated to accurately reflect Topic Area titles • Section IV.D.ix Summary for Public Release was updated with additional and revised requirements • Updated Table of Contents accordingly

Joint Office of Energy and Transportation

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I. Funding Opportunity Description

A. Background and Context

The Joint Office of Energy and Transportation (Joint Office), through the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy (EERE), is issuing a Funding Opportunity Announcement (FOA) entitled "Bipartisan Infrastructure Law (BIL) – Joint Office of Energy and Transportation: Communities Taking Charge Accelerator, Fiscal Year 2024 Funding Opportunity Announcement". Awards made under this FOA will be funded, in whole or in part, with funds appropriated by the Infrastructure Investment and Jobs Act[1], more commonly known as the Bipartisan Infrastructure Law (BIL).

The BIL is a once-in-a-generation investment in modernizing and upgrading American infrastructure to enhance U.S. competitiveness, driving the creation of good-paying union jobs, tackling the climate crisis, and securing environmental justice and economic opportunity for disadvantaged communities[2]. The BIL appropriates more than $62 billion to the Department of Energy (DOE)[3] to invest in American manufacturing and workers; expand access to energy efficiency and clean energy; deliver reliable, clean, and affordable power to more Americans; and demonstrate and deploy the clean-energy technologies of tomorrow through clean energy demonstrations.

DOE's BIL investments will support efforts to build a clean and equitable energy economy that achieves a zero-carbon electricity system by 2035, and to put the United States on a path to achieve net-zero emissions economy-wide by no later than 2050[4] to benefit all Americans.

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[1] Infrastructure Investment and Jobs Act, Public Law 117-58 (November 15, 2021). https://www.congress.gov/bill/117th-congress/house-bill/3684. This FOA uses the more common name Bipartisan Infrastructure Law.

[2]and M-23-09, DOE recognizes disadvantaged communities all Federally Recognized Tribes and Tribal entities as well as all census tracts identified as disadvantaged. Established by Executive Order 14008 on Tackling the Climate Crisis at Home and Abroad, the Justice40 Initiative sets a goal that 40% of the overall benefits of certain federal investments in climate, clean energy, and other areas flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution. Pursuant to M-21-28 and M-23-09, issued by the White House Office of Management and Budget, White House Council on Environmental Quality, and White House Office of Domestic Climate Policy, DOE recognizes disadvantaged communities as the census tracts that are identified as disadvantaged by the CEJST, as well as all Federally Recognized Tribes and Tribal entities. For information about whether a particular DOE program is covered under the Justice40 Initiative, please see DOE's Justice40 Initiative webpage.

[3] U.S. Department of Energy. November 2021. "DOE Fact Sheet: The Bipartisan Infrastructure Deal Will Deliver for American Workers, Families and Usher in the Clean Energy Future." https://www.energy.gov/articles/doe-fact-sheet-bipartisan-infrastructure-deal-will-deliver-american-workers-families-and-0

[4] Executive Order (EO) 14008, "Tackling the Climate Crisis at Home and Abroad," January 27, 2021.

The BIL includes a historic $7.5 billion dedicated investment to build out a national network of Electric Vehicle (EV) chargers. As part of this investment, the BIL includes $300 million to establish a Joint Office of Energy and Transportation to study, plan, coordinate, and implement issues of joint concern between the U.S. Department of Energy and the U.S. Department of Transportation (DOT). The Communities Taking Charge Accelerator FOA and related activities align with the Joint Office mission to provide a modernized and interagency approach to support the deployment of zero-emission, convenient, accessible, and equitable transportation infrastructure. The activities to be funded under this FOA support BIL section Title VIII, Division J, Federal Highway Administration - Highway Infrastructure Program.

i. Program Purpose

The Biden Administration has laid out a bold agenda to modernize and transform the nation's infrastructure, tackle the climate crisis, support good-paying American jobs, and ensure a just and equitable transition. Transportation is the sector that contributes most to greenhouse gas emissions in the United States. Transportation electrification has a key role to play in realizing all these outcomes and the Administration has established key targets to achieve by 2030:

1. Build an affordable, reliable, and convenient national network of 500,000 public EV charging ports.
2. Have EVs account for over 50% of light-duty vehicle sales in the United States.

The transition to electrified transportation is occurring rapidly: Since President Biden took office, EV sales have more than quadrupled, with more than four and a half million EVs on the road. In 2023, over 1.4 million EVs were sold, and EV ownership is more affordable than ever before, with prices down over 20% from one year ago. The number of publicly available charging ports has also grown by over 70 percent, to over 175,000 public charging ports.

Federal investments will accelerate this transition and catalyze additional private sector investment. More than $25 billion of investment in the U.S. EV charging network has been announced to date, including more than $10 billion from the private sector. States are accelerating progress on deploying EV chargers using federal formula funding through the Bipartisan Infrastructure Law's NEVI (National Electric Vehicle Infrastructure) program. Over $2.4 billion has been made available through the NEVI program, and many States such as Ohio, Pennsylvania, New York, and Hawaii are already bringing NEVI-funded charging stations online. The Federal Transit Administration (FTA) and the Environmental Protection Agency (EPA) also continue to support the transition to clean transit

and school bus fleets, improve facilities, and advance workforce development. Earlier this year, the EPA announced nearly $1 billion in awards for clean school buses across the nation through the U.S. EPA Clean School Bus Program Grants Competition. And on February 8. 2024, the FTA made nearly $1.5 billion available for the Low or No Emission and Grants for Buses and Bus Facilities Competitive Programs.

It is critical that the transition to electrified transportation be inclusive and equitable in providing benefits to all Americans while creating high quality jobs. As part of the whole-of-government approach to advance equity and encourage worker organizing and collective bargaining,[5] this FOA and any related activities will seek to encourage meaningful engagement and participation of workforce organizations, including labor unions, as well as disadvantaged communities and underrepresented groups, including Indian Tribes [6]. Consistent with Executive Order 14008,[7] this FOA is designed to help meet the goal that 40% of the overall benefits of certain federal investments in climate, clean energy and other areas flow to disadvantaged communities (also known as Justice40 communities), identified CEJST; and to drive creation of accessible, good-paying jobs with the free and fair chance for workers to join a union.

The Communities Taking Charge Accelerator FOA will seek to advance the mission and vision of the Joint Office by addressing discrete challenges to making it possible for everyone to ride and drive electric. In particular, this FOA will make strategic investments at the local level that address key barriers to expanding access to electrified mobility options for individuals without home charging; accelerating the transition to electrified micro, light, and medium duty fleets; and maturing the implementation of managed charging systems to mitigate impacts and optimize usage of the grid.

ii. Technology Space and Strategic Goals

The Communities Taking Charge Accelerator FOA seeks applications that will help further the Joint Office's vision of a future where everyone can ride and

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[5] EO 13985, "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government" January 20, 2021. EO 14091 "Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government" February 16, 2023.
[5] EO 14025, "Worker Organizing and Empowerment," April 26, 2021.
[5] EO 14052, "Implementation of the Infrastructure Investment and Jobs Act," November 18, 2021.
[6] EO 13175, November 6, 2000 "Consultation and Coordination With Indian Tribal Governments", charges all executive departments and agencies with engaging in regular, meaningful, and robust consultation with Tribal officials in the development of Federal policies that have Tribal implications. Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships | The White House.
[7] EO 14008, "Tackling the Climate Crisis at Home and Abroad," January 27, 2021.

drive electric. This FOA will fund innovative approaches to expanding EV adoption and charging access, particularly at the local level in urbanized areas where land use, density, car ownership rates, grid considerations, and other factors create unique needs and considerations for electrifying the transportation network where the demand for transportation access is at its highest density. Detailed technical descriptions of the specific topics are provided in the sections that follow.

iii. FOA Teaming Partner List

DOE is compiling a Teaming Partner List to facilitate the formation of project teams for this FOA. The Teaming Partner List allows organizations that may wish to participate in an application to express their interest to other applicants and to explore potential partnerships.

The Teaming Partner List will be available on EERE eXCHANGE and will be regularly updated to reflect new teaming partners who provide their organization's information.

SUBMISSION INSTRUCTIONS: View the Teaming Partner List by visiting the EERE eXCHANGE homepage and clicking on "Teaming Partners" within the left-hand navigation pane. This page allows users to view published Teaming Partner Lists. To join the Teaming Partner List, submit a request within eXCHANGE. Select the appropriate Teaming Partner List from the drop-down menu, and fill in the following information: Investigator Name, Organization Name, Organization Type, Topic Area, Background and Capabilities, Website, Contact Address, Contact Email, and Contact Phone.

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 facilitating the Teaming Partner List, DOE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations that are identifying themselves for placement on this 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.

B. Topic Areas

The following topics are included in this funding opportunity. Applications can be proposed exclusively as planning projects, exclusively as demonstration and/or deployment projects, or as a combination of both planning and demonstration and/or deployment.

Topic	Topic Title
Topic 1	Solving for No-Home Charging: Expanding Charging Access for Privately Owned E-Mobility
Topic 2	Expanding E-Mobility Solutions through Electrified Micro, Light and Medium-Duty Fleets
Topic 3	Managed Charging for Clean Reliable Energy

Topic 1: Solving for No-Home Charging: Expanding Charging Access for Privately Owned E-Mobility

Topic 1 Introduction and Background

The Joint Office is committed to equitable deployment of EV charging infrastructure and transportation and mobility access options. As EV adoption continues, attention is being paid to individuals who may be renters or living in multifamily housing without convenient access to EV charging at home. According to a National Renewable Energy Lab (NREL) report, as EV adoption continues to scale up in the U.S., up to 25% of EV drivers will lack access to home charging. NREL's analysis estimates that 1.2 million public chargers and 28 million private chargers will be necessary by 2030. While publicly accessible charging in commercial areas and workplace charging will play a role in filling that gap, other innovative solutions in and adjacent to residential areas are needed to support EV drivers without home charging (i.e. "no-home charging"). Finally, as EV adoption continues, new, often tech-enabled solutions such as managed charging, reservation systems, as well as curb management and compliance strategies will be needed to support public charging at scale.

Electric (e)-micromobility options such as e-bikes, cargo e-bikes, and e-scooters can help provide equitable zero-emission mobility access at considerably lower cost for all households, but especially in dense, urban environments where trips are shorter distances and there is protected street infrastructure to support safe riding. According to the U.S. Bureau of Transportation Statistics, in 2021, 52% of all trips (including all modes of transportation for passenger trips, freight and goods movement, and first/last mile multimodal connections) were less than three miles; with 28% of trips being less than one mile. These short trips can potentially be served by a micromobility device. Privately-owned e-micromobility is surging: e-bike sales in the U.S. increased 269% between 2019 and 2022. The increased demand of this highly popular mobility option demonstrates the need to provide safe and secure charging access, especially for residents of multifamily housing in dense neighborhoods where potential impacts from battery fires may be more significant, making charging indoors potentially dangerous.

Topic 1 Objective

The objective of this topic is to fund planning and/or demonstration and/or deployment projects that explore innovative e-mobility charging solutions for individuals without access to home charging for their electric vehicles and mobility devices (e.g. cars, e-bikes, e-scooters, electric wheelchairs, etc.). Topic 1 applications may cover one or more of the following project concepts (but are not limited to the concepts listed):

- Innovative public charging models that address challenges for residents of multifamily housing and those without safe access to home charging, which may include:
  - Curbside reservation-based charging for long-dwell use (e.g., overnight);
  - Lower investment curbside charging options such as "bring your own cord" or solutions that leverage existing street furniture;
  - Innovative charging solutions for multifamily accessory parking;
  - Secure storage with charging for privately-owned e-micromobility devices (e.g., dense urban neighborhoods, multifamily buildings, campus/dorm facilities, etc.); and
  - Multimodal community charging hubs, which can support the charging of multiple vehicles across transport modes (including e-micromobility, transit, etc.)
- EV charging deployment strategies that lower costs and/or charging times;
- Affordable, equitable charging rate design, including:
  - Rates charged to drivers; and
  - Payments for individuals reliant on public charging.

Applications can be proposed exclusively as planning projects, exclusively as demonstration and/or deployment projects, or as a combination of both planning and demonstration and/or deployment projects. Applicants may include one or multiple planning activities and/or one or multiple demonstration and/or deployment activities within a single application. Applicants should identify proposed activities as separate tasks within the Workplan and related budget (see Section IV.D – Content and Form of the Full Application).

Planning Projects

Planning projects may be most suitable for communities in nascent stages of providing charging access for EV drivers or riders without home charging. Planning projects could include, but are not limited to, a collection of activities such as:

- Needs assessments;
- Feasibility analyses to inform an upcoming procurement;
- Site analysis for a future pilot;
- Securing necessary permits;

- Pre-construction engineering design and planning activities;
- Community engagement to collect feedback on a proposed project;
- Impacts/policy analysis to inform potential negative impacts from a project and mitigation measures (e.g. housing cost increases, traffic increases, fire safety risk);
- Creating a strategic plan or designing a new program and its guidelines; and
- Developing or updating local regulatory codes, zoning, and/or permitting changes to accelerate the deployment of charging.

Example Planning Projects include, but are not limited to:

- Conducting an inventory of available capacity and ownership of street furniture or other assets in the public-right-of-way to assess the potential for deploying e-mobility charging (and storage) solutions that leverage existing power supplies such as utility poles or streetlights;
- Designing new incentive programs for municipal and utility partners to retrofit residential buildings with EV and e-micromobility charging;
- Community engagement activities to collect feedback from members of an affordable housing facility to co-create an e-mobility program for car-free residences, such as an EV carshare service;
- Modernizing public realm and curbside rules and requirements to enable more publicly available charging;
- Coordination and reservation strategies for charging infrastructure in multifamily accessory parking lots;
- Amending architectural, building, and energy codes to explore the benefits of power sharing and right-sizing panel upgrades for e-mobility charging at multifamily housing;
- Updating local parking regulations to support curbside charging;
- Development of template lease language, technical best practices, communication and education to property owners, or other means of expanding access to EV charging or e-micromobility charging;
- Designing vouchers, subscriptions, mobility wallets, universal payment methods, transit pass interoperability, and other programs that offer subsidized public charging rates for low-income residents;
- Development of site plans for charging and parking privately-owned electric micromobility options; and
- Creating new or additional internal, institutional capacity such as task forces, departmental offices, staff positions, tool development, internal process reforms or other capacity building to accelerate the reviews/approvals of EV projects within a utility's interconnection project approval.

Demonstration and/or Deployment Projects

Proposed demonstration and/or deployment pilot projects will implement forward-looking concepts for how to best provide charging access for renters, multifamily housing residents, and others without home charging, and should result in lessons learned that can be scalable and repeatable in other communities around the country. Projects are encouraged to actively explain and include a process/budget for the dissemination of project info and replication in other communities. Projects may want to partner with other organizations or national labs that have the outreach capability to support this. Applicants are encouraged to address major barriers to individuals currently without access to home charging or tackle challenges associated with charging at scale – including improved cord management, reduced theft, faster permitting times, improved fire safety, reduced cost through innovative business models, and leveraging existing electricity infrastructure. These projects should have clear objectives and metrics that will inform best practices around further deployment of e-mobility chargers and associated mobility systems funded by other federal grant programs. Demonstration and/or deployment projects can deploy Level 1, Level 2, or Direct Current (DC) Fast Chargers.

<u>Example Demonstration and/or Deployment Projects include, but are not limited to:</u>

- Testing the role of incentives and enforcement strategies to ensure high uptime and utilization levels of public charging as well as promote compliance and broader curbside management;
- Demonstrations of new business, operational, and hardware models for EV charging - including curbside, bring your own cord, utility pole or streetlight enabled, mobile or valet, etc.;
- Demonstrations of new charging models that support secure parking and safe charging of privately owned e-micromobility devices;
- Demonstrations of new hardware and software models for EV charging including load control management systems, smart charge management either passive or active;
- Launching an incentive program to facilitate retrofitting of residential buildings to support EV and e-micromobility charging;
- Piloting mobility wallets and other incentive programs that provide subsidized rates for income-qualifying individuals reliant on public charging and may include interoperability with transit passes;
- Piloting curbside charging with novel technology, street and public right-of-way treatments designed to minimize competing demands at the curb, accessibility concerns, and potential conflicts with other modes and users such as

pedestrians, bicyclists, etc. in commercial, residential or commercial-adjacent locations; and
- Installation of shared secure storage of electric bikes and other micromobility devices adjacent to multifamily housing.

Topic 1 General Requirements

Applications must include:

- Geographic area of the proposed community served (e.g., city, county, neighborhood);
  - Applicants must include a map of the proposed geographic area and call out applicable Justice40 communities (by census tract, or partial tract), as identified by the Climate and Economic Justice Screening Tool,[8] that will be served by the project (this can include being served either by location or other relevant benefits but should be clearly articulated). All Federally Recognized Tribes and Tribal entities are considered Justice40 or disadvantaged communities for the purposes of the Justice40 Initiative, regardless whether they have land. The community should be identified as a Tribal entity and/or as a Justice40 community using the Climate and Economic Justice Screening Tool. Applicants may also utilize the EV Charging Justice40 Map to provide additional context on the Justice40 community.
- A description of the project's objectives, metrics of success, and overall approach;
- A description of the potential project benefits, as relevant to the specific application:
  - How the project expands access to charging and electric mobility options;
  - Whether the project will result in any anticipated regulatory, permitting, or other policy changes that will result in faster, lower cost, or more efficient deployment of electric vehicle supply equipment;
  - The anticipated resulting cost to EV drivers [i.e. cost/kwh relative to residential rates];
  - Any project elements that enhance grid resilience, integrate renewable energy sources, minimize grid demands, avoid infrastructure upgrades, reduce the cost of electric supply, or leverage vehicle-grid-integration (VGI) capabilities.
- A description of how the project will resolve unanswered questions and advance best practices in developing a robust, equitable, multimodal, grid-sensitive charging network, as well as what new knowledge will be created in support of

[8] See OMB, CEQ, & CPO, M-23-09, Addendum to the Interim Implementation Guidance for the Justice40 Initiative, M-21-28, on using the Climate and Economic Justice Screening Tool (CEJST) (Jan. 27, 2023), https://www.whitehouse.gov/wp-content/uploads/2023/01/M-23-09_Signed_CEQ_CPO.pdf.

this topic area and any work products the applicant plans to create to help with future replicability (reports, lessons learned, tools, etc.); and

- [For planning-only projects] A description of how the applicant plans to leverage these planning activities in support of future implementation or rapid scaling of project(s) (i.e. identifying funding programs that may be applied to in the future to support implementation, identifying how these planning activities connect with other pre-existing programs or long-range plans).

Topic 1 Teaming Arrangements

Teams are highly encouraged to select Project Partners across multiple disciplines including land use and urban design, transportation, energy, labor, community engagement, and equity.

Teams are encouraged to include entities across the following types:

- Units of local, regional, or Tribal government;
- Local authorities having jurisdiction (AHJ) concerning building or fire codes and permitting;
- Electric utilities and/or utility regulators;
- Transit and public mobility service providers;
- Mobility operators;
- Charging network operators;
- Charging software providers;
- Charging providers;
- Relevant workforce training (e.g., EVITP) providers;
- Infrastructure providers;
- Real estate developers;
- Property managers;
- Consulting firms;
- Community organizations;
- Labor organizations;
- Academic institutions;
- National laboratories;
- Department of Energy-designated Clean Cities coalitions[9].

Topic 1 Special Deliverables

- Applicants must plan and budget for participation in the Joint Office annual meeting. Awarded projects will provide a technical presentation and/or poster to detail the plans, progress, and results of the technical effort. Awarded projects

[9] https://cleancities.energy.gov/coalitions/locations/

will also share best practices and exchange ideas across similar projects in the topic area.

- Applicants will be strongly encouraged to participate in a Joint Office Technical Assistance "Communities Cohort" - a bi-monthly virtual peer-to-peer exchange sharing best practices, technical assistance and troubleshooting with implementation of their project.

Topic 1 Other Considerations

- Given that multifamily housing residents tend to have lower rates of car ownership, projects are not limited to charging solutions exclusively for EV drivers and are encouraged to include charging capability and support for multiple mobility options such as carsharing, e-bikes and scooters, and other shared mobility modes; and
- Projects that incorporate e-micromobility should be designed to support UL certified devices.

Topic 1 Discouraged Applications

- Projects that cannot implement proposed solutions by members of the Project Team due to lack of jurisdiction or authority.

Topic 2: Expanding E-Mobility Solutions through Electrified Micro, Light and Medium-Duty Fleets

Topic 2: Introduction and Background

Electrification of high-usage mobility devices, equipment, and fleet vehicles present an opportunity for a full systems approach to reducing transportation related emissions. Light and medium-duty vehicle fleets with their return-to-base operations, duty cycles, relatively smaller payloads, shorter routes, and minimal energy demands present a great opportunity for electrification when combined with appropriate charging needs.

Electrified light-duty and medium-duty vehicle fleets can support a variety of passenger and commercial services– including taxi service, carsharing, ride-hail, public transportation (e.g., paratransit, microtransit), app-based and on-demand food delivery services, as well as urban freight "last mile" delivery services. Shared micromobility options – like shared bikes and scooters – continue to experience a ridership boom. According to the National Association of City Transportation Officials, there were 113 million trips taken on shared bikes and scooters in the United States in 2022. Additionally, e-micromobility options such as electric bikes, scooters, mopeds, e-cargo bikes, and other microfreight vehicles can be leveraged for sustainable passenger and goods movement.

At the same time, there is a dramatic increase in demand for delivering goods. According to the U.S. Census, e-commerce sales in 2022 accounted for 14.6% of total sales and continue to rise. E-commerce has created unprecedented expectations for increasingly expeditious at-home delivery. Streets, curbs, and parking facilities may not be designed for an influx of larger vehicles and/or more vehicles, especially those needing to idle or make frequent stops. Other system users such as bicyclists, pedestrians, and drivers in dense urban commercial corridors bear the safety, health, and inconvenience risks of quick-turnaround delivery operations.

Fleet electrification (including shared micromobility) can reduce transportation sector emissions and improve air quality, as well as reduce operational expenses and maintenance needs. To ensure that electrified fleets can successfully operate, there are many important factors to consider– such as parking and charging options, fleet routes and timetables, frequency of use, affordability, access, and more.

Topic 2 Objective

The objective of this topic is to fund projects that conduct planning and/or demonstration and/or deployment efforts around innovative charging and deployment solutions for electrified ultra-light, micro, light, and medium-duty fleets that transport people through shared rides, shared vehicles (including micromobility), or transit operations, and that transport goods to communities through last mile delivery vehicles. Topic 2 projects may include, but are not limited to, one or more of the following project concepts:

- Testing how electrified micro-cars, cars, trucks, vans, and cargo e-bikes can deliver goods in a low or zero-emission delivery zone;
- Development of management, reservation, and coordination strategies for charging multiple fleets at public and behind-the-fence charging infrastructure to reduce grid infrastructure needs and/or reduce overall costs to fleets;
- Needs assessment and energy/infrastructure planning for ancillary facilities and charging depots for equipment at industrial areas such as airports, ports, warehouses, depots, staging lots, etc.;
- Novel ways to measure and monitor reduction in greenhouse gas outputs, improved air quality, and effects on grid power consumption;
- Establishing curb management best practices for both electrified freight movement and personal mobility in commercial corridors;
- Infrastructure designating, permitting and charging for curb access for electrified freight movement and personal mobility in commercial corridors;
- Managed charging and/or bi-directional charging and virtual power plant demonstrations for idle fleet vehicles;
- Converting underutilized parking lots into charging depots to support delivery or other services;

- Converting internal combustion engine-powered medium-duty or public transportation fleet vehicles to electric through repowering (i.e., replacing an internal combustion engine with a battery powered system);
- Establishing operational efficiencies in charging shared bikes and scooters through battery swapping sites, station electrification, and other means that will result in cost savings that can be passed onto riders;
- Strategies or infrastructure that help app-based delivery, for-hire-drivers, and other workers have access to electrified mobility and charging options;
- New business models and opportunities for multi-use fleets for both public and private uses;
- Introducing novel micromobility form factors such as e-cargo and adaptive bikes into shared fleets to expand ridership access to families transporting goods (i.e. groceries, home goods), as well as people including minors, seniors, people with disabilities, and other groups who struggle to use existing options; and
- Novel approaches to provide charging for electrified microtransit and transit bus services.

Applications can be proposed exclusively as planning projects, exclusively as demonstration and/or deployment projects, or as a combination of both planning and demonstration and/or deployment projects. Applicants may include one or multiple planning activities and/or one or multiple demonstration and/or deployment activities within a single application. Applicants should identify proposed activities as separate tasks within the Workplan and related budget (see Section IV.D – Content and Form of the Full Application).

Planning Projects

Proposed planning projects can conduct needs assessments, feasibility analyses to inform an upcoming procurement, site analysis for a future pilot, community engagement, create a strategic plan, or design a new program and its guidelines, or undergo regulatory, zoning, and/or permitting changes to accelerate the deployment of charging.

Example Planning Projects include, but are not limited to:

- Evaluations of the benefits of power sharing and right-sizing panel upgrades for depot charging as needed for fleet transition;
- Engagement and outreach to measure customer willingness to participate in a range of managed charging approaches;
- Amendments to local zoning codes, permitting processes, or other regulatory efforts to better enable grid planning and coordination to support fleet electrification;

- Drafting parking, permitting, and curb management strategies or plans, in addition to related programming and infrastructure, that will help implement new regulatory paradigms for urban goods movement;
- Issuing a study, designing a program, developing model regulation, or other planning activities to support future pilots of novel utility rate structures to reduce costs for transportation related public services such as transit, school buses, car share, shared micromobility, and/or Transportation Network Company services (TNC);
- Strategic planning efforts to encourage the pooling of shared resources across multiple fleets undergoing electrification transitions including multimodal and co-location;
- The creation of permitting tools and resources that streamline new service requests and interconnection agreements to utilities that support fleet electrification needs;
- Creating new or additional internal, institutional capacity such as task forces, departmental offices, staff positions; and
- Evaluating the energy and infrastructure needs for ancillary facilities and charging depots to facilitate electrified fleets at industrial areas such as airports, ports, warehouses, depots, staging lots, etc.

Demonstration and/or Deployment Projects

Proposed demonstration and/or deployment pilot projects will implement forward-looking concepts for how to best provide electrification of high-usage mobility devices, equipment, and fleet vehicles, and should result in lessons learned that can be scalable and repeatable in other communities or industries around the country. Applicants are encouraged to address major barriers to electrification for sectors of transportation that have been more difficult to transition or have not been prioritized through other funding opportunities. Applicants are also encouraged to propose pilot projects that serve communities, sites, or geographic areas with unique needs for transportation electrification, including dense urban areas, ports, or airports. These projects should have clear objectives and metrics that will inform best practices to inform other federal grant programs, and other industrial sectors, to create or advance solutions for transportation electrification.

<u>Example Demonstration and/or Deployment Projects include, but are not limited to:</u>

- On-site management or app-based access for multi-fleet public or 'behind the fence' charging;
- Innovative or novel use of sensors or other physical hardware to measure energy consumption, air quality, safety, or other related factors at industrial areas such as airports, ports, warehouses, depots, staging lots, etc.;

- Purchase of electric bikes, scooters, or light duty vehicles for shared fleet use; greater consideration is given to enhancing existing fleets and/or replacing non-electric motorized vehicles;
- Purchase of electric micro-cars, light-duty vans or trucks, and e-cargo bikes or other devices for last-mile deliveries;
- Purchase of equipment and installation expenses related to electric micromobility and light duty vehicles for shared fleet charging infrastructure;
- Development (or pilot) of curb or off-street charging infrastructure exclusively for electric shared ride (i.e., pick-up/drop-off zones) and delivery vehicles;
- Development of corridor or zone-based battery and device charging for shared micromobility services or personal electric micromobility equipment;
- Purchase of equipment and installation expenses for on-street installation for exclusive use by medium-duty vehicles and buses; and
- Converting internal combustion engine-powered medium-duty or public transit vehicles to electric through "repowering" portions of or entire fleets; with greater consideration to applicants with a demonstrated commitment and plan to achieve 100% zero emissions fleet.

Topic 2 General Requirements

Applications must include:

- Geographic area of the proposed community served (e.g., city, neighborhood, commercial district, industrial zone such as a port, airport, etc.)
- Applicants must include a map of the proposed geographic area and call out applicable Justice40 communities (by census tract, or partial tract), as identified by the Climate and Economic Justice Screening Tool,[10] that will be served by the project (this can include being served either by location or other relevant benefits but should be clearly articulated). All Federally Recognized Tribes and Tribal entities are considered disadvantaged communities for the purposes of the Justice40 Initiative, regardless of whether they have land. The community should be identified as a Tribal and/or Justice40 community, using the Climate and Economic Justice Screening Tool. Applicants may also utilize the EV Charging Justice40 Map to provide additional context on the community.
- Project Description:
  - A description of the fleet that is being electrified, the project's objectives, metrics of success, and overall approach. Each applicant should determine the specific measurements that are appropriate based on their application.
  - Eligible projects can include purchase of micromobility devices; Class 1-3 light duty vehicles, Class 4-6 medium duty vehicles, and all buses.

[10] See OMB, CEQ, & CPO, M-23-09, Addendum to the Interim Implementation Guidance for the Justice40 Initiative, M-21-28, on using the Climate and Economic Justice Screening Tool (CEJST) (Jan. 27, 2023), https://www.whitehouse.gov/wp-content/uploads/2023/01/M-23-09_Signed_CEQ_CPO.pdf.

- Each applicant should determine the specific measurements that are appropriate based on their application; including but not limited to how the project will help with the following (as applicable):
  - Reduce CO_2 emissions;
  - Improve air quality;
  - Reduce energy or operations costs;
  - Meet the increasing demand for urban deliveries;
  - Lower traffic congestion;
  - Improve curb efficiency for goods;
  - Increase productivity of loading zones;
  - Reduce cruising and idling time;
  - Promote safety, including at the curb;
  - Maintain or enhance job quality, worker safety, and career pathways;
  - Lower costs for operators and/or customers; and
  - Provide economic and/or environmental overall benefits to Justice40 communities.
- Where applicable, a description of any project elements that enhance grid resilience, integrate renewable energy sources, minimize grid demands, avoid infrastructure upgrades, reduce the cost of electric supply, or leverage VGI capabilities; and
- How this project will resolve unanswered questions and advance best practices in municipal charging, electrified fleet deployment, sustainable workforce models, build community capacity, and mode shift; as well as what new knowledge will be created in this topic area, and any work products the applicant plans to create to help with future replicability (reports, lessons learned, tools, etc.).

Topic 2 Teaming Arrangements

Teams are highly encouraged to select Project Partners across multiple disciplines including land use and urban design, transportation, energy, labor, community engagement, and equity.

Teams are encouraged to include but are not limited to entities across the following types:

- Units of local, regional, or Tribal government;
- Electric utilities and/or utility regulators;
- Airport committees and/or airport regulators;
- Public transportation operators;
- Community organizations;
- Academic Institutions;
- National laboratories;

- Labor organizations;
- Department of Energy-designated Clean Cities coalitions[11];
- Fleet operators and managers;
- Shared micromobility fleet operators;
- Infrastructure and technology providers;
- Charging providers;
- Courier network services;
- Delivery platforms;
- Carriers and shippers;
- Real estate;
- Retailers;
- Manufacturers of vehicles;
- Consulting firms;
- Utility providers (investor-owned, municipal, and cooperatives allowed to apply as a Project Lead); and
- Non-profit transportation services provider.

Topic 2 Special Deliverables

- Applicants must plan and budget for participation in the Joint Office annual meeting. Awarded projects will provide a technical presentation and/or poster to detail the plans, progress, and results of the technical effort. Awarded projects will also share best practices and exchange ideas across similar projects in the topic area; and
- Applicants will be strongly encouraged to participate in a Joint Office Technical Assistance "Communities Cohort" - a bi-monthly virtual peer-to-peer exchange sharing best practices, technical assistance and troubleshooting with implementation of their project.

Topic 2 Other Considerations

- Proposals for medium-duty fleets that align with Phase 1 of the National Zero-Emission Freight Corridor Strategy[12] are strongly encouraged;

Topic 2 Discouraged Applications

- Projects focused on heavy-duty freight fleets and infrastructure;
- Projects that cannot implement proposed solutions by members of the Project Team due to lack of jurisdiction or authority; and

[11] https://cleancities.energy.gov/coalitions/locations/
[12] https://driveelectric.gov/files/zef-corridor-strategy.pdf

- Projects that directly support the development of Alternative Fuel Corridors and are tied to implementation of other federal programs like the National Electric Vehicle Infrastructure (NEVI) program.

Topic 3: Managed Charging for Clean Reliable Energy

Topic 3 Introduction and Background

The increasing popularity of electric vehicles requires advancements in charging infrastructure to meet the diverse needs of a growing user base. An essential part of this upgrade is implementing managed charging systems. These systems go beyond traditional models by intelligently controlling and coordinating EV charging to make the most efficient use of infrastructure and minimize impacts on the electrical grid. In the rapidly changing landscape of EV adoption, using basic managed charging techniques can reduce the need for additional investment in distribution grids.

Managed charging involves employing smart control methods for EV charging, including scheduling sessions during low-demand times, prioritizing charging based on grid conditions and user preferences, and adjusting rates dynamically in response to grid needs. Through active management, these systems aim to improve overall grid stability, reduce peak demand surges, and ensure fair access for all EV users, regardless of their residential circumstances.

Topic 3 Objective

The objective of this topic is to fund projects that conduct planning and/or demonstration and/or deployment efforts that accelerate solutions in the EV charging ecosystem. Topic 3 will provide requirements and specifications for end-to-end managed charging functionality including charging and communication systems and can include demonstrations of these systems. The intent is to provide resources and solutions into ecosystems supporting open-source distribution and may also contribute to Standards Development Organizations (SDO) for industry consensus.

Applications can be proposed exclusively as planning projects, exclusively as demonstration and/or deployment projects, or as a combination of both planning and demonstration and/or deployment projects. Applicants may include one or multiple planning activities and/or one or multiple demonstration and/or deployment activities within a single application. Applicants should identify proposed activities as separate tasks within the Workplan and related budget (see Section IV.D – Content and Form of the Full Application).

Topic 3 General Requirements

Applications must include:

- A focus on end-to-end-managed charging implementations; projects will plan or demonstrate managing charging technologies developed to meet the requirements of Code of Federal Regulations - Title 23/Chapter I/Subchapter G/Part 680 (CFR 680) "National Electric Vehicle Infrastructure Standards and Requirements";
- A description of how the project will facilitate the execution phase of forward-looking projects in the EV charging sector. Projects will showcase the practical implementation of managed charging. This involves integrating CFR 680 stipulated technologies and to optionally integrate platforms for vehicle side telematic executing managed charging;
- A comprehensive managed charging design, scenarios, and technical documentation detailing interface mapping, sequence diagrams, application integration model, and non-functional requirements;
- Development of use cases that cover fast-charging (>150kW), off-corridor, and public Level 2 charging (with opt-in), aiming to establish a foundation for future EV infrastructure advancements;
- Project learnings that can inform the best practices around further deployment of EV chargers and associated mobility systems funded by other federal grant programs; and
- Development of a communications plan for demonstrating, contributing, and socializing results (Demonstration only).

Planning Projects

Proposed planning projects should provide designs and requirements, both functional and non-functional, to build next generation managed charging applications and services, or provide comprehensive study on existing technologies deployed in the market and strategies to improve their technical capabilities.

Example Planning Projects include, but are not limited to:

- Conducting studies to examine the number of connected home chargers with required chipsets that exist in the market, coupled with feasibility studies identifying steps to increase that number;
- Detailing end-to-end implementation of managed charging, including the stipulated technologies and optional integration with platforms for vehicle side telematics, for defined use cases; use cases can include >150kW Alternative Fuels Corridor, off corridor, and public Level 2 (requiring customer opt-in);
- Smart Insights with real-time data visualization and reporting linked assets, providing actionable insights and validation;

- Detailing end-to-end implementation of energy management solutions based on power and pricing limitations; CFR 680 stipulated technologies;
- Detailing end-to-end implementation of AC fleet management solutions based on power and pricing limitations; CFR 680 stipulated technologies; and
- Creating Open Charge Point Protocol (OCPP) based smart charging profiles and schedules aligned with planned departure times on the vehicle.

Demonstration and/or Deployment Projects

Demonstrations and/or deployments should build and deploy managed charging solutions using federally required standards and advanced technologies to deploy scalable solutions for managing grid impact, while protecting for the experience of the customer. Project artifacts should be contributed broadly to the market for horizontal scaling across charging controllers and applications for broad and robust interoperability. Outputs from this project should also be contributed for application in larger geographic areas to support the vertical scaling of deployed capacity.

Example Demonstration and/or Deployment Projects include, but are not limited to:

- Demonstrating end-to-end implementation of managed charging including CFR 680 stipulated technologies and optional vehicle telematics, for defined use cases; use cases can include >150kW m Fuel Corridor, off corridor, and public Level 2 (requiring customer opt-in);
- Creating and contributing to open-source OCPP 2.0.1 Home implementation; the project should include an Application Programming Interface (API) gateway acting as the server and an ultra-thin OCPP client layer updated over the air to production hardware home chargers;
- Last-mile delivery logistics hub with management of AC and DC (150+ kW) charge points to monitoring and manage batteries and solar panels to enable curtailment and Virtual Power Plant (VPP) participation;
- Truck Station management including trucks, battery packs, and other equipment with limited grid connection to enable managed charging load balancing, grid capacity, and reservation systems;
- Management of AC and DC (150+ kW) charge points to implement smart charging, while monitoring and managing solar energy;
- Enables managed charging based on occupancy, priority, weather forecasts, energy market, and transport planning;
- Creating and contributing to open-source energy management logic for Level 2 station clusters; and
- Creating and contributing to open-source dynamic pricing logic for Level 2 dwell charging.

Demonstration and/or deployment projects on home or depot connected chargers must address the following requirements:

- Public EV chargers compliant with CFR 680 (not along alternative fuel corridors);
- Supports Minimum Required Error Codes Minimum Required Error Codes by ChargeX - Idaho National Laboratory (inl.gov);
- Supports technical requirements of CFR 680;
- Over-the-air (OTA) capable; and
- Minimum 500MB chip with adequate processing power to run OCPP 2.0.1.

Topic 3 Teaming Arrangements

Teams are highly encouraged to select Project Partners across multiple disciplines including units of local or regional government, land use and urban design, transportation, energy, labor, community engagement, and equity.

Teams are encouraged to include but are not limited to entities across the following types:

- Mobility providers;
- Charging hardware manufacturers and suppliers;
- Charging network operators;
- Infrastructure providers;
- Fleet operators and owners;
- Consulting firms; and
- Utilities.

National laboratory involvement is strongly encouraged for leveraging other VGI resources, projects and learnings.

Topic 3 Special Deliverables

- Applicants must plan and budget for participation in the Joint Office annual meeting. Awarded projects will provide a technical presentation and/or poster to detail the plans, progress, and results of the technical effort. Awarded projects will also share best practices and exchange ideas across similar projects in the topic area; and
- Applicants will be strongly encouraged to participate in a Joint Office Technical Assistance "Communities Cohort" - a bi-monthly virtual peer-to-peer exchange sharing best practices, technical assistance and troubleshooting with implementation of their project.

Topic 3 Other Considerations

- Additionally, it should be noted that a DOE Class Patent Waiver has been granted that applies to this FOA (see Section VIII.J – Title to Subject Inventions);
- Applications to the topic are required to submit an Open-Source Software Distribution Plan (see Section IV.D.xvi); and
- Applications to the topic are required to submit a Data Management Plan (see Section IV.D.xvii).

Topic 3 Discouraged Applications

Applications that cannot successfully implement proposed solutions due to a lack of jurisdiction or authority by members of the Project Team.

C. Applications Specifically Not of Interest

The following types of applications will be deemed nonresponsive and will not be reviewed or considered (See Section III.D. of the FOA):

- Applications that fall outside the technical parameters specified in Sections I.A. and I.B. of the FOA.

- Applications for proposed technologies that are not based on sound scientific principles (e.g., violates the laws of thermodynamics).

D. Community Benefits Plan: Job Quality and Equity

To support the goal of building a clean and equitable energy economy, the BIL-funded projects are expected to (1) support meaningful community and labor engagement; (2) invest in America's workforce; (3) advance diversity, equity, inclusion, and accessibility (DEIA); and (4) contribute to the President's goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities (the Justice40 Initiative). [13] To ensure these goals are met, applications

[13] Established by Executive Order 14008 on *Tackling the Climate Crisis at Home and Abroad*, the Justice40 Initiative sets a goal that 40% of the overall benefits of certain federal investments in climate, clean energy, and other areas flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution. Pursuant to M-21-28 and M-23-09, issued by the White House Office of Management and Budget, White House Council on Environmental Quality, and White House Office of Domestic Climate Policy, DOE recognizes disadvantaged communities as the census tracts that are identified as disadvantaged by the CEJST, as well as all Federally Recognized Tribes and Tribal entities. For information about whether a particular DOE program is covered under the Justice40 Initiative, please see DOE's Justice40 Initiative webpage.

must include a Community Benefits Plan that describes how the proposed project would incorporate the four objectives stated above.

Applicants are encouraged to submit Community and Labor Partnership Documentation from established labor and community-based organizations that demonstrate the applicant's ability to achieve the above goals as outlined in the Community Benefits Plan. Within the Community Benefits Plan, the applicant is encouraged to provide details on how to ensure the delivery of measurable community and jobs benefits, ideally using negotiated agreements between the applicant and the community, and/or the applicant and labor unions referred to collectively here as "Workforce and Community Agreements." These include good neighbor agreements, community benefits agreements, community workforce agreements, project labor agreements, and other collective bargaining agreements. See Section IV.D.xix. for the Community Benefits Plan content requirements.

E. Authorizing Statutes

The programmatic authorizing statute is Public Law 117-58, Bipartisan Infrastructure Law (BIL) under Title VIII, Division J, Federal Highway Administration - Highway Infrastructure Program and Public Law (P. L.) 95-91 DOE Organization Act.

Awards made under this announcement will fall under the purview of 2 Code of Federal Regulation (CFR) Part 200 as amended by 2 CFR Part 910.

F. Notice of Bipartisan Infrastructure Law-Specific Requirements

Be advised that special terms and conditions apply to projects funded by the BIL relating to:

- Reporting, tracking, and segregation of incurred costs;
- Reporting on job creation and preservation;
- Publication of information on the Internet;
- Access to records by Inspectors General and the Government Accountability Office;
- Requiring all of the iron, steel, manufactured goods, and construction materials used in the infrastructure activities of applicable projects are produced in the United States;
- Ensuring laborers and mechanics employed by contractors or subcontractors on BIL-funded projects are paid wages equivalent to prevailing wages on similar projects in the area;
- Protecting whistleblowers and requiring prompt referral of evidence of a false claim to an appropriate inspector general; and
- Certification and Registration.

Recipients of funding appropriated by the BIL must comply with requirements of all applicable federal, state, and local laws, regulations, DOE policy and guidance, and instructions in this FOA. Recipients must flow down the requirements to subrecipients to ensure the recipient's compliance with the requirements.

II. Award Information

A. Award Overview

i. Estimated Funding

The Joint Office through DOE expects to make a total of approximately $54 million of federal funding available for new awards under this FOA, subject to the availability of appropriated funds. DOE/Joint Office anticipates making approximately 14-41 awards under this FOA. DOE/Joint Office may issue one, multiple, or no awards. Individual awards may vary between $250,000 and $4,000,000.

DOE/Joint Office may issue awards in one, multiple, or none of the following topic areas:

Topic Area Number	Topic Area Title	Anticipated Number of Awards	Anticipated Minimum Award Size for Any One Individual Award (Federal Share)	Anticipated Maximum Award Size for Any One Individual Award (Federal Share)	Approximate Total Federal Funding Available for All Awards	Anticipated Period of Performance
1	Solving for No-Home Charging: Expanding Charging Access for Privately Owned E-Mobility	6 to 20	$250,000	$4,000,000	$23,000,000	Up to 24 months
2	Expanding E-Mobility Solutions through Electrified Micro, Light and Medium-Duty Fleets	5 to 15	$250,000	$4,000,000	$20,000,000	Up to 24 months
3	Managed Charging for Clean Reliable Energy	3 to 6	$1,000,000	$4,000,000	$11,000,000	Up to 24 months

DOE/Joint Office may establish more than one budget period for each award and fund only the initial budget period(s). Funding for all budget periods, including the initial budget period, is not guaranteed.

ii. Period of Performance

DOE anticipates making awards that will run up to 24 months in duration, comprised of one or more budget periods. Budget Periods are typically 12 months. Project continuation will be contingent upon several elements, including satisfactory performance and DOE's Go/No-Go decision. For a complete list and more information on the Go/No-Go review, see Section VI.B.xiv.

iii. New Applications Only

DOE will accept only new applications under this FOA. DOE will not consider applications for renewals of existing DOE-funded awards through this FOA.

B. DOE Funding Agreements

Through cooperative agreements and other similar agreements, DOE provides financial and other support to projects that have the potential to realize the FOA objectives. DOE does not use such agreements to acquire property or services for the direct benefit or use of the United States government.

i. Cooperative Agreements

DOE generally uses cooperative agreements to provide financial and other support to prime recipients.

Through cooperative agreements, DOE provides financial or other support to accomplish a public purpose of support or stimulation authorized by federal statute. Under cooperative agreements, the government and prime recipients share responsibility for the direction of projects.

DOE has substantial involvement in all projects funded via cooperative agreements. See Section VI.B.x of the FOA for more information on what substantial involvement may involve.

ii. Funding Agreements with Federally Funded Research and Development Center (FFRDCs)[14]

In most cases, FFRDCs are funded independently of the remainder of the project team. The FFRDC then executes an agreement with any non-FFRDC project team members to arrange work structure, project execution, and any other matters. Regardless of these arrangements, the entity that applied as the prime recipient for the project will remain the prime recipient for the project. See Section III.E.i.

III. Eligibility Information

To be considered for substantive evaluation, an applicant's submission must meet the criteria set forth below. If the application does not meet these eligibility requirements, it will be considered ineligible and removed from further evaluation.

A. Eligible Applicants

i. Domestic Entities

The proposed prime recipient and subrecipient(s) must be domestic entities. The following types of domestic entities are eligible to participate as a prime recipient or subrecipient of this FOA:

1. Institutions of higher education;
2. For-profit entities;
3. Non-profit entities; and
4. State and local governmental entities, and Indian Tribes.

To qualify as a domestic entity, the entity must be organized, chartered or incorporated (or otherwise formed) under the laws of a particular state or territory of the United States; have majority domestic ownership and control; and have a physical place of business in the United States.

DOE/NNSA FFRDCs are eligible to apply for funding as a subrecipient but are not eligible to apply as a prime recipient. **The National Energy Technology Laboratory (NETL) is not eligible for award under this announcement and may not be proposed as a subrecipient on another entity's application. An application that includes NETL as a prime recipient or subrecipient will be considered non-responsive.**

[14] FFRDCs are public-private partnerships that conduct research for the United States government. A listing of FFRDCs can be found at http://www.nsf.gov/statistics/ffrdclist/.

Non-DOE/NNSA FFRDCs are eligible to participate as a subrecipient but are not eligible to apply as a prime recipient.

Federal agencies and instrumentalities (other than DOE and DOT) are eligible to participate as a subrecipient but are not eligible to apply as a prime recipient.

Entities banned from doing business with the United States government, such as entities debarred, suspended, or otherwise excluded from or ineligible for participating in federal programs, are not eligible.

Nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995 are **not** eligible to apply for funding.

ii. Foreign Entities

In limited circumstances, DOE may approve a waiver to allow a foreign entity to participate as a prime recipient or subrecipient. A foreign entity may submit a Full Application to this FOA, but the Full Application must be accompanied by an explicit written waiver request. Likewise, if the applicant seeks to include a foreign entity as a subrecipient, the applicant must submit a separate explicit written waiver request in the Full Application for each proposed foreign subrecipient.

Appendix C lists the information that must be included in a foreign entity waiver request. The applicant does not have the right to appeal DOE's decision concerning a waiver request.

B. Cost Sharing

Applicants are bound by the cost share proposed in their Full Applications if selected for award negotiations. Applications which include a combination of planning and demonstration/deployment activities must apply cost share appropriately to those tasks according to the following table:

Topic Area	Activity Type	Minimum Cost Share Requirement
Topic 1 - Solving for No-Home Charging: Expanding Charging Access for Privately Owned E-Mobility	Planning	0%
	Demonstration/Deployment	50%
Topic 2- Expanding E-Mobility Solutions through Electrified	Planning	0%

Micro, Light and Medium-Duty Fleets	Demonstration/Deployment	50%
Topic 3 - Managed Charging for Clean Reliable Energy	Planning	20%
	Demonstration/Deployment	50%

Project cost share must come from non-federal sources unless otherwise allowed by law.

To help applicants calculate proper cost share amounts, DOE has included a cost share information sheet and sample cost share calculation as Appendices A and B to this FOA.

i. Legal Responsibility

Although the cost share requirement applies to the project as a whole, including work performed by members of the project team other than the prime recipient, the prime recipient is legally responsible for paying the entire cost share. If the funding agreement is terminated prior to the end of the project period, the prime recipient is required to contribute at least the cost share percentage of total expenditures incurred through the date of termination.

The prime recipient is solely responsible for managing cost share contributions by the project team and enforcing cost share obligation assumed by project team members in subawards or related agreements.

ii. Cost Share Allocation

Each project team is free to determine how best to allocate the cost share requirement among the team members. The amount contributed by individual project team members may vary, as long as the cost share requirement for the project as a whole is met.

iii. Cost Share Types and Allowability

Every cost share contribution must be allowable under the applicable federal cost principles, as described in Section IV.J.i. of the FOA. In addition, cost share must be verifiable upon submission of the Full Application. Cost share may be provided in the form of cash or cash equivalents, or in-kind contributions. Cost share must come from non-federal sources (unless otherwise allowed by law), such as project participants, state or local governments, or other third-party financing. DOE Loan Guarantees cannot be leveraged by applicants to provide

the required cost share or otherwise support the same scope that is proposed under a project.

Cost share may be provided by the prime recipient, subrecipients, or third parties (entities that do not have a role in performing the scope of work). Vendors/contractors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.

Cash contributions include, but are not limited to: personnel costs, fringe costs, supply and equipment costs, indirect costs, and other direct costs.

In-kind contributions are those where a value of the contribution can be readily determined, verified, and justified but where no actual cash is transacted in securing the good or service comprising the contribution. Allowable in-kind contributions include but are not limited to: the donation of volunteer time or the donation of space or use of equipment.

Project teams may use funding or property received from state or local governments to meet the cost share requirement, so long as the federal government did not provide the funding to the state or local government.

The prime recipient and subrecipient(s) may not use the following sources to meet its cost share obligations:

- Revenues or royalties from the prospective operation of an activity beyond the project period;
- Proceeds from the prospective sale of an asset of an activity;
- Federal funding or property (e.g., federal grants, equipment owned by the federal government); or
- Expenditures that were reimbursed under a separate federal program.

Project teams may not use the same cash or in-kind contributions to meet cost share requirements for more than one project or program.

Cost share contributions must be specified in the project budget, verifiable from the prime recipient's records, and necessary and reasonable for proper and efficient accomplishment of the project. As all sources of cost share are considered part of total project cost, the cost share dollars will be scrutinized under the same federal regulations as federal dollars to the project. Every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred.

Applicants are encouraged to refer to 2 CFR 200.306 as supplemented by 2 CFR 910.130 for additional cost sharing requirements.

iv. Cost Share Contributions by FFRDCs

Because FFRDCs are funded by the federal government, costs incurred by FFRDCs generally may not be used to meet the cost share requirement. FFRDCs may contribute cost share only if the contributions are paid directly from the contractor's Management Fee or another non-federal source.

v. Cost Share Verification

Applicants are required to provide written assurance of their proposed cost share contributions in their Full Applications.

Upon selection for award negotiations, applicants are required to provide additional information and documentation regarding their cost share contributions. Please refer to Appendix A of the FOA.

vi. Cost Share Payment

DOE requires prime recipients to contribute the cost share amount incrementally over the life of the award. Specifically, the prime recipient's cost share for each billing period must always reflect the overall cost share ratio negotiated by the parties (i.e., the total amount of cost sharing on each invoice when considered cumulatively with previous invoices must reflect, at a minimum, the cost sharing percentage negotiated). As FFRDC funding will be provided directly to the FFRDC(s) by DOE, prime recipients will be required to provide project cost share at a percentage commensurate with the FFRDC costs, on a budget period basis, resulting in a higher interim invoicing cost share ratio than the total award ratio.

In limited circumstances, and where it is in the government's interest, the DOE Contracting Officer may approve a request by the prime recipient to meet its cost share requirements on a less frequent basis, such as monthly or quarterly. Regardless of the interval requested, the prime recipient must be up to date on cost share at each interval. Such requests must be sent to the Contracting Officer during award negotiations and include the following information: (1) a detailed justification for the request; (2) a proposed schedule of payments, including amounts and dates; (3) a written commitment to meet that schedule; and (4) such evidence as necessary to demonstrate that the prime recipient has complied with its cost share obligations to date. The DOE Contracting Officer must approve all such requests before they go into effect.

C. Compliance Criteria

All applicant submissions must:

- Comply with the applicable content and form requirements listed in Section IV of the FOA;
- Include all required documents;
- Be successfully uploaded and submitted to EERE eXCHANGE https://eere-exchange.energy.gov; and
- Be submitted by the deadline stated in the FOA.

DOE will not review or consider submissions submitted through means other than EERE eXCHANGE, submissions submitted after the applicable deadline, or incomplete submissions.

Applicants are strongly encouraged to submit their Concept Papers, Full Applications and Replies to Reviewer Comments at least 48 hours in advance of the submission deadline. Under normal conditions (i.e., at least 48 hours in advance of the submission deadline), applicants should allow at least 1 hour to submit a Concept Paper, Full Application, or Reply to Reviewer Comments. Once the Concept Paper, Full Application, or Reply to Reviewer Comments are submitted in EERE eXCHANGE, applicants may revise or update that submission until the expiration of the applicable deadline. If changes are made to any of these documents, the applicant must resubmit the Concept Paper, Full Application, or Reply to Reviewer Comments before the applicable deadline. DOE will not extend the submission deadline for applicants that fail to submit required information by the applicable deadline due to server/connection congestion.

D. Responsiveness Criteria

All "Applications Specifically Not of Interest," as described in Section I.C. of the FOA, are deemed nonresponsive and are not reviewed or considered.

E. Other Eligibility Requirements

i. Requirements for DOE/NNSA and non-DOE/NNSA FFRDCs Included as a Subrecipient

DOE/NNSA and non-DOE/NNSA FFRDCs may be proposed as a subrecipient on another entity's application subject to the following guidelines:

i. *Authorization for non-DOE/NNSA FFRDCs*
The federal agency sponsoring the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be

submitted with the application. The use of a FFRDC must be consistent with its authority under its award.

ii. *Authorization for DOE/NNSA FFRDCs*
The cognizant Contracting Officer for the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization:

> Authorization is granted for the Laboratory to participate in the proposed project. The work proposed for the Laboratory is consistent with or complementary to the missions of the Laboratory and will not adversely impact execution of the DOE-assigned programs at the Laboratory.

iii. *Funding, Cost Share, and Subaward with FFRDCs*
The value of and funding for the FFRDC portion of the work will not normally be included in the award. DOE/NNSA FFRDCs participating as a subrecipient on a project will be funded directly through the DOE field work proposal (WP) process. Non-DOE/NNSA FFRDCs participating as a subrecipient will be funded through an interagency agreement with the sponsoring agency.

Although the FFRDC portion of the work is usually excluded from the award, the applicant's cost share requirement will be based on the total cost of the project, including the applicant's, the subrecipient's, and the FFRDC's portions of the project.

Unless instructed otherwise by the DOE Contracting Officer for the DOE award, all FFRDCs are required to enter into a Cooperative Research and Development Agreement[15] (CRADA) or, if the role of the DOE/NNSA FFRDC is limited to technical assistance and intellectual property is not anticipated to be generated from the DOE/NNSA FFRDC's work, a Technical Assistance Agreement (TAA), with at least the prime recipient before any project work begins. Any questions regarding the use of a CRADA or TAA should be directed to the cognizant DOE field intellectual property (IP) counsel.

The CRADA or TAA is used to ensure accountability for project work and provide the appropriate management of intellectual property (IP), e.g., data

[15] A cooperative research and development agreement is a contractual agreement between a national laboratory contractor and a private company or university to work together on research and development. For more information, see https://www.energy.gov/gc/downloads/doe-cooperative-research-and-development-agreements

protection and background IP. The CRADA or TAA must be agreed upon by all parties and submitted to DOE or other sponsoring agency, when applicable, for approval, or submitted to DOE for notice under the Master Scope of Work process, when applicable, using any DOE or other sponsoring agency approved CRADA or TAA template without substantive changes by the time the award is made to the prime recipient.

iv. *Responsibility*
The prime recipient will be the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues, including, but not limited to disputes and claims arising out of any agreement between the prime recipient and the FFRDC.

v. *Limit on FFRDC Effort*
The scope of work to be performed by the FFRDC should not be more significant than the scope of work to be performed by the applicant.

F. Limitation on Number of Concept Papers and Full Applications Eligible for Review

An entity may submit more than one Concept Paper and Full Application to this FOA, provided that each application describes a unique, scientifically distinct project and provided that an eligible Concept Paper was submitted for each Full Application.

G. Questions Regarding Eligibility

DOE will not make eligibility determinations for potential applicants prior to the date on which applications to this FOA must be submitted. The decision whether to apply in response to this FOA lies solely with the applicant.

IV. Application and Submission Information

A. Application Process

The application process includes two phases: Concept Paper phase and Full Application phase. **Only applicants who have submitted an eligible Concept Paper will be eligible to submit a Full Application**.

All submissions must conform to the form and content requirements described below, including maximum page lengths.

- Each must be submitted in Adobe PDF format unless stated otherwise;
- Each must be written in English;

- All pages must be formatted to fit on 8.5 x 11 inch paper with margins not less than one inch on every side. Use Calibri typeface, a black font color, and a font size of 12 point or larger (except in figures or tables, which may be 10 point font). A symbol font may be used to insert Greek letters or special characters, but the font size requirement still applies. References must be included as footnotes or endnotes in a font size of 10 or larger. Footnotes and endnotes are counted toward the maximum page requirement;
- A **control number** will be issued when an applicant begins the EERE eXCHANGE application process. The control number must be included with all application documents. Specifically, the control number must be prominently displayed on the upper right corner of the header of every page and included in the file name (i.e., *Control Number_Applicant Name_Full Application*);
- Page numbers must be included in the footer of every page; and
- Each submission must not exceed the specified maximum page limit, including cover page, charts, graphs, maps, and photographs when printed using the formatting requirements set forth above and single spaced. If applicants exceed the maximum page lengths indicated below, DOE will review only the authorized number of pages and disregard any additional pages.

i. Additional Information on EERE eXCHANGE

EERE eXCHANGE is designed to enforce the deadlines specified in this FOA. The "Apply" and "Submit" buttons will automatically disable at the defined submission deadlines.

Applicants who experience technical difficulties with submission PRIOR to the FOA deadline should contact the EERE eXCHANGE helpdesk for assistance (EERE-ExchangeSupport@hq.doe.gov).

B. Application Forms

To access application forms and instructions available on EERE eXCHANGE, go to https://eere-exchange.energy.gov and select the appropriate funding opportunity number.

Note: The maximum file size that can be uploaded to the EERE eXCHANGE website is 50MB. Files larger than 50MB cannot be uploaded, and hence cannot be submitted for review. If a file is larger than 50MB but is still within the maximum page limit specified in the FOA, it must be broken into parts and denoted to that effect. For example:

TechnicalVolume_Part_1
TechnicalVolume_Part_2

DOE will not accept late submissions that resulted from technical difficulties due to uploading files that exceed 50MB.

C. Content and Form of the Concept Paper

Each Concept Paper must be limited to a single concept or technology. The Concept Paper must conform to the requirements listed below, including the stated page limits.

Section	Page Limit	Description
Cover Page	1 page maximum	The cover page should include the project title, the specific Topic Area being addressed, both the technical and business points of contact, names of all team member organizations, names of project managers, senior/key personnel and their organizations, the project location(s), and any statements regarding confidentiality.
Technical Description and Impacts	3 pages maximum	Applicants are required to describe succinctly: • The problem being addressed by the project and the relevance of this problem to the Topic Area; • The project goal (i.e., what the project will accomplish); • The project's approach to accomplishing the goal; • The potential impact that the proposed project would have on the problem being addressed; • The stakeholders/communities that will benefit from the project; • How DOE funding is necessary to achieve the project objectives; • The equipment and facilities necessary to accomplish the effort and/or the applicant's approach to obtain access to the equipment and facilities; and • The project team's qualifications, experience, and capabilities to successfully execute the proposed project. • Applicants may provide graphs, charts, or other data within the 3-page limit.
Community Benefits Plan	2 pages maximum	Applicants are required to describe succinctly the approach to be taken with the Community Benefits Plan, addressing the four core elements: • community and labor engagement leading to negotiated agreements;

		• investing in job quality and workforce continuity; • advancing diversity, equity, inclusion, and accessibility; and • contributing to the Justice40 Initiative goal that 40% of the overall benefits from climate and clean energy investments flow to disadvantaged communities.

DOE makes an independent assessment of each Concept Paper based on the criteria in Section V.A.i. of the FOA. DOE will encourage a subset of applicants to submit Full Applications. Other applicants will be discouraged from submitting a Full Application. See Section V.A.ii.

D. Content and Form of the Full Application

Applicants must complete the following application forms found on the EERE eXCHANGE website at https://eere-exchange.energy.gov/.

Applicants will have approximately 30 calendar days from receipt of the Concept Paper Encourage/Discourage notification on EERE eXCHANGE to prepare and submit a Full Application. Regardless of the date the applicant receives the Encourage/Discourage notification, the submission deadline for the Full Application remains the date and time stated on the FOA cover page.

All Full Application documents must be marked with the control number issued to the applicant.

i. Full Application Content Requirements

Component	File Format	Page Limit	File Name
SF-424: Application for Federal Assistance	PDF	N/A	ControlNumber_LeadOrganization_App424
Technical Volume	PDF	30	ControlNumber_LeadOrganization_TechnicalVolume
Resumes	PDF	3 pages each	ControlNumber_LeadOrganization_Resumes
Letters of Commitment	PDF	1 page each	ControlNumber_LeadOrganization_LOCs
Community Partnership Documentation	PDF	10	ControlNumber_LeadOrganization_PartnerDocs
Statement of Project Objectives	MS Word	7	ControlNumber_LeadOrganization_SOPO
Budget Justification Workbook	MS Excel	N/A	ControlNumber_LeadOrganization_Budget_Justification
Summary for Public Release	PDF	1	ControlNumber_LeadOrganization_Summary

Summary Slide	MS PowerPoint	1	ControlNumber_LeadOrganization_Slide
Subrecipient Budget Justification	MS Excel	N/A	ControlNumber_LeadOrganization_Subrecipient _Budget_Justification
DOE Work Proposal for FFRDC, if applicable (see DOE O 412.1A, Attachment 3)	PDF	N/A	ControlNumber_LeadOrganization_WP
Authorization from cognizant Contracting Officer for FFRDC	PDF	N/A	ControlNumber_LeadOrganization_FFRDCAuth
SF-LLL Disclosure of Lobbying Activities	PDF	N/A	ControlNumber_LeadOrganization_SF-LLL
Foreign Entity Waiver Requests and Foreign Work Waiver Requests	PDF	N/A	ControlNumber_LeadOrganization_Waiver
Open-Source Software Distribution Plan (if applicable – Topic 3 only)	PDF	N/A	ControlNumber_LeadOrganization_OSSDP
Data Management Plan (if applicable – Topic 3 only)	PDF	N/A	ControlNumber_LeadOrganization_DMP
Community Benefits Plan: Job Quality and Equity	PDF	12	ControlNumber_LeadOrganization_CBP
Community Benefits Plan Budget Justification	MS Excel	N/A	ControlNumber_CBP_Budget_Justification
Current and Pending Support	PDF	N/A	ControlNumber_LeadOrganization_CPS
Locations of Work	MS Excel	N/A	Control Number_LeadOrganization_LOW
Transparency of Foreign Connections	PDF	N/A	ControlNumber_LeadOrganization_TFC
Potentially Duplicative Funding Notice (if applicable)	PDF	N/A	ControlNumber_LeadOrganization_PDFN

Each Full Application must be limited to a single concept. Full Applications must conform to the following requirements and must not exceed the stated page limits.

Note: The maximum file size that can be uploaded to the EERE eXCHANGE website is 50MB.

DOE provides detailed guidance on the content and form of each component below.

ii. SF-424: Application for Federal Assistance

Applicants must complete the SF-424: Application for Federal Assistance, which is available on EERE eXCHANGE at https://eere-exchange.energy.gov/. The list of certifications and assurances in Field 21 can be found at http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms, under Certifications and Assurances. Note: The dates and dollar amounts on the SF-424

are for the complete project period and not just the first project year, first phase or other subset of the project period. Save the SF-424 in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_424".

iii. Technical Volume

The Technical Volume must conform to the following content and form requirements. This volume must address the technical review criteria as discussed in Section V. of the FOA. Save the Technical Volume in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_TechnicalVolume".

Applicants must provide sufficient citations and references to the primary research literature to justify the claims and approaches made in the Technical Volume. However, DOE and reviewers are under no obligation to review cited sources.

The Technical Volume to the Full Application may not be more than 30 pages, including the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all information in the table below. The applicant should consider the weighting of each of the technical review criteria (see Section V. of the FOA) when preparing the Technical Volume.

The Technical Volume should clearly describe and expand upon information provided in the Concept Paper.

Technical Volume Content Requirements	
SECTION/PAGE LIMIT	**DESCRIPTION**
Cover Page	The cover page should include: • Project title; • The specific Topic being addressed; • The technical point of contact (principal investigator/lead project manager); • The business points of contact; • The names and locations (city, state, zip code) of all team member organizations; • Names of project managers; • Senior/Key Personnel and their organizations; and

	• Any additional locations (city, state, zip code) of project work including any demonstration/deployment sites or field locations. Also include applicable statements regarding confidentiality.
Project Overview (Approximately 10% of the Technical Volume)	The Project Overview section should contain a brief summary of the proposed project including the following information: **Project Summary:** • Explanation of the project's relevance to the Topic objectives; • The project's end goal(s): Describe what the project will accomplish, including the ways in which the proposed project location and related infrastructure, skilled workforce, community benefits, etc. will contribute to the success of the overall project; • The project approach: Summarize the proposed project activities to achieve the project's end goal(s); • Project outcomes: Describe specific short-term results from the project activities; • Project outputs: Describe specific deliverables or tools to be produced; • Project impacts: Describe expected long-term impacts resulting from the project activities, including a description of mitigation strategies of potential negative impacts; • Community Benefits: Describe the project's engagement with community and labor; investments in job quality and workforce continuity; advances in diversity, equity, inclusion, and accessibility (DEIA); and contributions to the Justice40 Initiative; • Constraints on Resources: The applicant should identify any potential long-term constraints the project will have on the community's access to natural resources (e.g., water) and Tribal cultural resources. If applicable, describe a long-term cleanup strategy that ensures communities and neighborhoods remain healthy, safe, and not burdened with cleanup costs and waste; • Climate Strategy: The applicant should outline a climate resilience strategy that accounts for climate impacts and extreme weather patterns, such as high winds (tornadoes and hurricanes), heat and freezing temperatures, drought, wildfire, and floods. **Project Team and Qualifications** • Describe the team member organizations' experience with this type of work and any special qualifications of key individuals in relation to the proposed work.

Project Approach and Impact (Approximately 30% of the Technical Volume)	The Project Approach and Impact section should contain the following information: **Project Approach and Impact Description** • Describe the problem being addressed, or the opportunity pursued by the project, using quantifiable metrics; • Describe the current state of the market applicable to the Topic and the market barriers being addressed. This characterization should be specific to the geographic project area being proposed and use quantifiable metrics; • Describe the expected change in the identified market as a result of the project activities. This projection should be specific to the geographic project area being proposed and use quantifiable metrics; • Describe the proposed project approach including what activities will be undertaken to implement the Topic's general and specific requirements and achieve the project's end goal(s); • Describe how the community and stakeholders affected by the project are involved in the design and implementation of the project activities; • Specify the project's end goal(s), and what the project will accomplish by the end of the project period; • Describe the project outcomes, the associated metrics, and the approach to measuring their impact; • Describe the project outputs, specific deliverables, or tools to be produced. **Market Transformation Plan** • Describe how project activities would sustain themselves or expand after the completion the project period; • Describe how the project is replicable and the approach for broadly disseminating project learnings, valuable insights, best practices, and outcomes throughout the project period, to enable other communities to replicate project successes.

Workplan
(Approximately 40% of the Technical Volume)
	The Workplan should contain the following information:
	
	• **Project Summary by Budget Period**: Provide a summary description of the work scope by budget periods.
	
	  ○ Describe the specific expected outcome(s) of each budget period.
	
	• **Project Schedule** (Gantt Chart or similar): Provide a schedule for the entire project, including:
	
	  ○ Task and subtask durations;

	○ Milestones and deliverable completion dates; ○ Go/No-Go decision points. • **Work Breakdown Structure (WBS):** Provide a WBS which: ○ Is structured with a hierarchy of budget periods (approximately annual), tasks, subtasks, and outputs (deliverables); ○ Contains a concise description of the specific activities to be conducted; ○ Describes how the team members will accomplish the work, achieve the milestones, and produce the deliverables in order to meet the final project goal(s); ○ Clearly indicates the responsible party and the location of the work for each work package in the WBS. • **Milestone Summary:** Provide a summary of appropriate milestones throughout the project to demonstrate success. A milestone may be either a progress measure (which can be activity-based) or a SMART technical milestone. SMART milestones should be Specific, Measurable, Achievable, Relevant, and Timely, and must demonstrate a project achievement rather than simply completing a task. Completion of a deliverable (a project output such as an analysis report) should be associated with an individual milestone. The minimum requirement is that each project must have at least one milestone per quarter for the duration of the project with at least one SMART technical milestone per year (depending on the project, more milestones may be necessary to comprehensively demonstrate progress). Include the following information: ○ Milestone Title; ○ Milestone description; ○ Associated task number; ○ Timeframe for completion (e.g., project month or quarter); ○ How the milestone will be verified. • **Go/No-Go Decision Points**: Provide a summary of project-wide Go/No-Go decision points at appropriate points in the Workplan. A Go/No-Go decision point is a risk management tool and a project management best practice to ensure that, for the current phase or period of performance, project success is definitively achieved and potential for success in future phases or periods of performance is evaluated, prior to actually beginning the execution of future phases.

	○ Each project must have at least one project-wide Go/No-Go decision point for each budget period (ex: 12 to 15-month period) of the project. See Section VI.B.xiv; ○ Provide the specific criteria to be used to evaluate the project at the Go/No-Go decision point; ○ Go/No-Go decision points are considered "SMART" and can fulfill the requirement for an annual SMART milestone. • **End of Project Goal:** Provide a summary of the end of project goal(s). Each project must have at least one SMART end of project goal. • **Project data:** (if applicable) Provide a description of: ○ The data to be collected from project activities; ○ How the data will be managed; ○ How the data will be shared. • **Project Management and Controls**: Provide an overview of the team's approach to project management and controls, including the following: ○ The overall approach to managing the work; ○ Financial management practices and systems used to track project costs, invoicing, and payments; ○ Project management practices and systems used to provide oversight of task progress, scope, schedule, and budget management; ○ Process for managing project changes; ○ Describe the internal communication process among project team members; ○ Identification of project risks, mitigation strategies and risk management responsibilities; ○ Quality Assurance/Control process to ensure the quality of services and products (including deliverables) generated by the team. • **Project Resources:** Describe the equipment, facilities, and specialized supplies necessary to execute the project activities and the approach to obtain access to, and use of, the equipment, facilities, and supplies. • **Buy America Requirements for Infrastructure Projects:** Within the first 2 pages of the Workplan, include a short statement of on whether the project will involve the construction, alteration, and/or repair of infrastructure in the United States. See Appendix D for applicable definitions and other information to inform this statement. Note that a Statement of Project Objectives (SOPO) is required as a separate submission in the application (SOPO template is available in EERE eXCHANGE). The tasks, milestones, and go/no-go decision points in the SOPO must be consistent with those proposed in the Workplan.

Project Team and Qualifications (Approximately 20% of the Technical Volume)	The Project Team and Qualifications section should contain the following information: • Describe the unique qualifications, expertise, and experience of the key individuals in the project team in relation to project and Topic objectives; • Describe succinctly the roles and the work to be performed by the principal investigator/lead project manager (LPM) and each key participant in relation to their qualifications, expertise, and experience; • Describe the time commitment of the LPM and key participants to support the project; • Describe the alignment between the team organizations' missions/strategic goals with the objectives of the Topic and with the teaming arrangement encouraged or required by the Topic; • Describe the technical services to be provided by DOE/NNSA FFRDCs, if applicable; • Describe how the project team's financial and resource commitments to the project will facilitate the successful achievement of the project's end goals.

iv. Resumes

A resume provides information reviewers can use to evaluate an individual's relevant skills and the experience of the key project personnel. Applicants must submit a resume (limited to three pages) for each project manager and Senior/Key Personnel that includes the following:

1. Contact information;
2. Education: All academic institutions attended, major/area, degree;
3. Training: (e.g.,) certification or credential from a Registered Apprenticeship or Labor Management Partnership
4. Professional experience: Beginning with the current position, list professional/academic positions in chronological order with a brief description;
5. List all current academic, professional, or institutional appointments, foreign or domestic, at the applicant institution or elsewhere, whether or not remuneration is received, and whether full-time, part-time, or voluntary; and
6. There should be no lapses in time over the past 10 years or since age 18, whichever period is shorter.

As an alternative to a resume, it is acceptable to use the biographical sketch format approved by the National Science Foundation (NSF). The biographical sketch format may be generated by the Science Experts Network Curriculum Vita (SciENcv), a cooperative venture maintained at

https://www.ncbi.nlm.nih.gov/sciencv/, and is also available at https://www.nsf.gov/bfa/dias/policy/researchprotection/commonform_biographicalsketch.pdf. The use of a format required by another agency is intended to reduce the administrative burden to researchers by promoting the use of common formats.

Save the resumes in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_Resumes".

v. Letters of Commitment

Submit letters of commitment from all subrecipient and third-party cost share providers. If applicable, the letter must state that the third party is committed to providing a specific minimum dollar amount or value of in-kind contributions allocated to cost sharing. The following information for each third party contributing to cost sharing should be identified: (1) the name of the organization; (2) the proposed dollar amount to be provided; and (3) the proposed cost sharing type (cash or in-kind contributions). Each letter must not exceed 1 page. Save the letters of commitment in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_LOCs".

Letters of support or endorsement for the project from entities that do not have a substantive role in the project are not accepted.

vi. Community Partnership Documentation

In support of the Community Benefits Plan, applicants may submit documentation to demonstrate existing or planned partnerships with community entities, such as organizations that work with local stakeholders most vulnerable to or affected by the project. Examples of such as entities include organizations that carry out workforce development programs, labor unions, Tribal organizations, and community-based organizations that work with disadvantaged communities. The Partnership Documentation can be a letter on the partner's letterhead outlining the planned partnership signed by an officer of the entity, a Memorandum of Understanding, or other similar agreement. Such letters must state the specific nature of the partnership and must not be general letters of support. If the applicant intends to enter into Workforce and Community Agreements as part of the Community Benefits Plan, they should include letters from proposed partners. Each letter must not exceed 1 page. In total, the partnership documentation must not exceed 10 pages. Save the Community Partnership Documentation in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_PartnerDoc".

vii. Statement of Project Objectives (SOPO)

Applicants are required to complete a SOPO. A SOPO template is available on EERE eXCHANGE at https://eere-exchange.energy.gov/. The SOPO, including the Milestone Table, must not exceed 7 pages when printed using standard 8.5 x 11 paper with 1" margins (top, bottom, left, and right) with font not smaller than 12-point (except in figures or tables, which may be 10-point font). Save the SOPO in a single Microsoft Word file using the following convention for the title "ControlNumber_LeadOrganization_SOPO".

viii. Budget Justification Workbook

Applicants must complete the Budget Justification Workbook, available on EERE eXCHANGE at https://eere-exchange.energy.gov/. Applicants must complete each tab of the Budget Justification Workbook for the project, including all work to be performed by the prime recipient and its subrecipients and contractors. Applicants should include costs associated with implementing the various BIL-specific requirements (e.g., Buy America requirements for infrastructure projects, Davis Bacon, Community Benefits Plan, reporting, oversight) and with required annual audits and incurred cost proposals in their proposed budget documents. Such costs may be reimbursed as a direct or indirect cost. The "Instructions and Summary" included with the Budget Justification Workbook will auto-populate as the applicant enters information into the Workbook. Applicants must carefully read the "Instructions and Summary" tab provided within the Budget Justification Workbook. Save the Budget Justification Workbook in a single Microsoft Excel file using the following convention for the title "ControlNumber_LeadOrganization_Budget_Justification".

ix. Summary for Public Release

To better inform demand for investments in charging infrastructure, electric fleet vehicles and devices, and managed charging, the Joint Office of Energy and Transportation requests making some non-proprietary portions of the Communities Taking Charge FOA available for public reporting. Information will be gathered in shared as aggregate by FOA Topic, funding request type, categories of charging or vehicles, or other grouping of information provided in the final FOA submissions.

Applicants are encouraged to use the Summary for Public Release template, available on EERE eXCHANGE at https://eere-exchange.energy.gov/.

***Applicants must provide the following information in Section 1 of the template, which represents a summary of the project in a way that is suitable**

for dissemination to the public. Section 2 of the template is optional. An applicant will not be penalized in any way during the review process or course of subsequent award performance period, if the requested information in Section 2 is not provided. *

The information stated in Section 1 and if elected, Section 2, is due upon submission of the full application.

The information should be a self-contained document and must not include any proprietary or sensitive business information, as DOE may use the data provided in publicly viewable analyses after selections are made. Save the Summary for Public Release response as a single PDF file using the following naming convention for the title: "ControlNumber_LeadOrganization_Summary".

x. Summary Slide

Applicants must provide a single slide summarizing the proposed project.

The Summary Slide template is available on EERE eXCHANGE at https://eere-exchange.energy.gov/ and must include the following information:

- A technology/project summary;
- A description of the technology's/project's impact;
- Proposed project goals;
- Any key graphics (illustrations, charts and/or tables);
- The project's key idea/takeaway;
- Topline community benefits;
- Project title, prime recipient, Principal Investigator/Lead Project Manager, and senior/key personnel information;
- Requested DOE funds and proposed applicant cost share; and
- Locations of Work.

Save the Summary Slide in a single Microsoft PowerPoint file using the following convention for the title "ControlNumber_LeadOrganization_Slide".

xi. Subrecipient Budget Justification (if applicable)

Applicants must provide a separate budget justification for each subrecipient that is expected to perform work estimated to be more than $250,000 or 25 percent of the total work effort (whichever is less). The budget justification must include the same justification information described in the "Budget Justification Workbook" section above. Save each subrecipient budget justification in a Microsoft Excel file using the following naming convention for the title "ControlNumber_LeadOrganization_Subrecipient_Budget_Justification".

xii. Budget for DOE/NNSA FFRDC (if applicable)

If a DOE/NNSA FFRDC is to perform a portion of the work, the applicant must provide a DOE work proposal (WP) in accordance with the requirements in DOE Order 412.1A, Work Authorization System, Attachment 3, available at: https://www.directives.doe.gov/directives-documents/400-series/0412.1-BOrder-a-chg1-AdmChg. Save the WP in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_WP".

xiii. Authorization for non-DOE/NNSA or DOE/NNSA FFRDCs (if applicable)

The federal agency sponsoring the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be submitted with the application. The use of a FFRDC must be consistent with the contractor's authority under its award. Save the Authorization in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_FFRDCAuth".

xiv. SF-LLL: Disclosure of Lobbying Activities (required)

Recipients and subrecipients may not use any federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Recipients and subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (https://www.grants.gov/forms/forms-repository/sf-424-individual-family) to ensure that non-federal funds have not been paid and will not be paid to any person for influencing or attempting to influence any of the following in connection with the application:

- An officer or employee of any federal agency;
- A member of Congress;
- An officer or employee of Congress; or
- An employee of a member of Congress.

Save the SF-LLL in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_SF-LLL".

xv. Waiver Requests (if applicable)

i. Foreign Entity Participation

For projects selected under this FOA, all recipients and subrecipients must qualify as domestic entities. See Section III.A.i. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the Full

Application. Appendix C lists the information that must be included in a waiver request.

ii. **Foreign Work Waiver Request**

As set forth in Section IV.J.iii., all work for projects selected under this FOA must be performed in the United States. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the Full Application. Appendix C lists the information that must be included in a foreign work waiver request.

Save the Waivers in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_Waiver".

xvi. Open-Source Software Distribution Plan (Topic 3 only)

When applicants apply to one or more Topic Areas for which open-source software distribution is required, applicants must submit an Open-Source Software Distribution Plan as part of their Full Application. This plan describes how software produced under this FOA will be distributed. Submission of an Open-Source Software Distribution Plan is required; failure to submit a complete Plan may result in a determination of non-compliance for your Full Application. Guidance for preparing an Open-Source Software Distribution Plan is included in Appendix E of the FOA. Save the Open-Source Software Distribution Plan in a single Adobe Acrobat file using the following naming convention for the title "ControlNumber_LeadOrganization_OSSDP" and click on "Add Optional Other Attachment" to attach.

xvii. Data Management Plan (Topic 3 only)

Each applicant whose Full Application is selected for award negotiations will be required to submit a Data Management Plan (DMP) during the award negotiations phase. A DMP explains how, when appropriate, data generated in the course of the work performed under a DOE award will be shared and preserved to validate the results of the proposed work or how the results could be validated if the data is not shared or preserved. The DMP must provide a plan for making all research data displayed in publications resulting from the proposed work digitally accessible at the time of publications.

An applicant may select the template Data Management Plan (DMP) listed below. Alternatively, instead of selecting the template DMP below, an applicant may submit another DMP provided that the DMP, at a minimum, (1) describes how data sharing and preservation will enable validation of the results from the proposed work, how the results could be validated if data are not shared or preserved and (2) has a plan for making all research data displayed in

publications resulting from the proposed work digitally accessible at the time of publications. DOE Public Access Plan dated July 24, 2014 provides additional guidance and information on DMPs.

> DMP Option: For any publication that includes the results of the project, the underlying research data will be made available according to the policies of the publishing media. Where no such policy exists, the recipient must indicate on the publication a means for requesting and digitally obtaining the underlying research data. This includes the research data necessary to validate any results, conclusions, charts, figures, and images in the publications.

Save the DMP in a single PDF file using the following naming convention for the title "ControlNumber_LeadOrganization_DMP".

xviii. Community Benefits Plan: Job Quality and Equity

The Community Benefits Plan: Job Quality and Equity (Community Benefits Plan or Plan) must set forth the applicant's approach to ensuring that federal investments advance four goals: 1) community and labor engagement; 2) investing in job quality and workforce continuity; 3) advancing diversity, equity, inclusion, and accessibility (DEIA); and 4) contributing to the Justice40 Initiative. The Community Benefits Plan should indicate the applicant's intention to engage meaningfully with labor and community stakeholders on these goals, including the potential of entering into formal Workforce and Community Agreements. Given project complexity and sensitivities, applicants should consider pursuing multiple agreements.

For your convenience, a Community Benefits Plan template is available on EERE eXCHANGE at https://eere-exchange.energy.gov/. Applicants are strongly encouraged to use the template to complete their specific Plan. If the template is not used, the Plan must address all of the elements described below, and as outlined in the template.

The applicant's Community Benefits Plan must include at least one Specific, Measurable, Achievable, Relevant and Timely (SMART) milestone per budget period to measure progress on the proposed actions. The Plan will be evaluated as part of the technical review process. If DOE selects a project, the recipient must implement its Community Benefits Plan when carrying out its project. Public transparency around the plan and SMART commitments ensure accountability. In addition, DOE will evaluate the recipient's progress during the award period of performance, including as part of the Go/No-Go review process.

The Community Benefits Plan must not exceed 12 pages. It must be submitted in PDF format using the following convention name for the title: "Control Number_LeadOrganization_CBP." This Plan must address the technical review criterion titled, "Community Benefits Plan: Job Quality & Equity." See Section V. of the FOA.

For additional information, see About Community Benefits Plans.

The Community Benefits Plan must address the following:

1. **Community and Labor Engagement:** The Community Benefits Plan must describe the applicant's actions to date and plans to engage with community partners, such as local and/or Tribal governments, labor unions, and community-based organizations that support or work with disadvantaged communities, disadvantaged communities as defined for purposes of the Justice40 Initiative. By facilitating community input, social buy-in, and accountability, such engagement can substantially reduce or eliminate stalls or slowdowns, litigation, and other risks associated with project implementation.

   Community and labor engagement should lay the groundwork for the negotiation of Workforce and Community Agreements, which could take the form of one or more kinds of negotiated agreements with communities, labor unions, or, ideally, both. Registered apprenticeship programs, labor-management training partnerships, quality pre-apprenticeship programs, a card check provision, and local and targeted hiring goals are all examples of provisions that Workforce and Community Agreements could cover that would increase the success of a DOE-funded project.

   Applicants should also provide Community and Labor Partnership Documentation from representative organizations reflecting substantive engagement and feedback on the applicant's approach to community benefits, including job quality and workforce continuity; diversity, equity, inclusion, and accessibility; and the Justice40 Initiative detailed below.

2. **Investing in Job Quality and Workforce Continuity:** A well-qualified, skilled, and trained workforce is necessary to ensure project stability, continuity, and success, and to meet program goals. High-quality jobs are critical to attracting and retaining the qualified workforce required.

The Plan must describe the applicant's approach to investing in workforce education and training of both new and incumbent workers and ensuring jobs are of sufficient quality to attract and retain skilled workers in the industry.

As the 1935 National Labor Relations Act states, employees' ability to organize, bargain collectively, and participate, through labor organizations of their choosing, in decisions that affect them contributes to the effective conduct of business and facilitates amicable settlements of any potential disputes between employees and employers, providing assurances of project efficiency, continuity, and multiple public benefits.

The Plan must include:

1) A summary of the applicant's plan to attract, train, and retain a skilled and well-qualified workforce for construction *and* ongoing operations/production activities. A collective bargaining agreement, labor-management partnership, or other similar agreement would provide evidence of such a plan. Alternatively, applicants may describe:
    a) Wages, benefits, and other worker supports to be provided, benchmarking against prevailing wages for construction and local median wages for other occupations;
    b) Commitments to invest in workforce education and training, including measures to reduce attrition, increase productivity from a committed and engaged workforce, and support the development of a resilient, skilled, and stable workforce for the project; and
    c) Efforts to engage employees in the design and execution of workplace safety and health plans.

2) It is the policy of the United States to eliminate the causes of certain substantial obstructions to the free flow of commerce by encouraging the practice and procedure of collective bargaining and by protecting the exercise by workers of full freedom of association. Applicant should provide a description of how and if they plan to affirmatively support worker organizing and collective bargaining. This might include a commitment to negotiate pre-hire project labor agreements for construction activity, a pledge to remain neutral during any union organizing campaigns, intention or willingness to permit union recognition through card check (as opposed to requiring union elections), intention or willingness to enter into binding arbitration to settle first contracts, a pledge to allow union organizers access to appropriate onsite non-work places (e.g., lunch rooms), a pledge to refrain from holding

captive audience meetings, and other supportive commitments or pledges.

3. **DEIA:** The Community Benefits Plan must include a section describing how DEIA objectives will be incorporated into the project. The section should detail how the applicant will partner with underrepresented businesses, educational institutions, and training organizations that serve workers who face barriers to accessing quality jobs, and/or other project partners to help address DEIA.

   The following is a list of potential DEIA actions that could be included in a Plan. This list is offered to provide guidance to applicants and is not intended to be comprehensive:

   A) Commit to partnering with disadvantaged business enterprises, new local businesses, and veteran-owned businesses for contractor support needs;

   B) To fill open positions for the DOE-funded project, partner with workforce training organizations serving underrepresented communities and those facing systemic barriers to quality employment, such as those with disabilities, women, returning citizens, opportunity youth, and veterans;

   C) Provide workers with comprehensive support services, such as childcare and transportation, to increase representation and access in project's construction and operations jobs.

4. **Justice40 Initiative:** Applicants must provide an overview of benefits to disadvantaged communities that the project can deliver, supported by measurable milestones. The Justice40 Initiative section must include:

   A. Identification of applicable disadvantaged communities to which the anticipated project benefits will flow.

   B. Identification of applicable benefits that are quantifiable, measurable, and trackable, including, at a minimum, a discussion of the relevance of each of the eight DOE Justice40 Initiative benefits outlined below.

      Benefits include (but are not limited to) measurable direct or indirect investments or positive project outcomes that achieve or contribute to the following in disadvantaged communities: (1) a decrease in energy burden; (2) a decrease in environmental exposure and burdens; (3) an increase in access to low-cost capital; (4) an increase in high-quality job creation, the clean energy job pipeline, and job training for individuals;

(5) increases in clean energy enterprise creation and contracting (e.g., disadvantaged business enterprises); (6) increases in energy democracy, including community ownership; (7) increased parity in clean energy technology access and adoption; and (8) an increase in energy resilience. Applicants should also discuss how the project will maximize all the benefits listed in number 4 above.

C. A description of how and when anticipated benefits are expected to flow to disadvantaged communities. For example, whether the benefits will be provided directly within disadvantaged communities identified in the Justice40 Initiative section or in another way; whether the benefits will flow during project development or after project completion; and how the applicant will track benefits delivered.

D. A discussion of anticipated negative and cumulative environmental impacts on disadvantaged communities. Applicants should discuss any anticipated negative or positive environmental impacts associated with the project, and how they will mitigate any negative impacts. Within the context of cumulative impacts created by the project, applicants should use Environmental Protection Agency's EJSCREEN tool to quantitatively discuss existing environmental impacts in the project area. See EJScreen: Environmental Justice Screening and Mapping Tool.

For projects funded under this FOA, DOE will provide specific reporting guidance for the benefits described above.

Save the Community Benefits Plan in a single PDF file using the following naming convention for the title "Control Number_LeadOrganization_CBP." This Plan must address the technical review criterion titled, "Community Benefits Plan: Job Quality & Equity." See Section V. of the FOA.

xix. Community Benefits Plan Budget Justification

Applicants must provide a separate budget justification identifying the Community Benefit Plan costs included in the "Budget Justification Workbook." This Community Benefits Plan Budget Justification must include the same justification information described in the "Budget Justification Workbook" section above but should only include Community Benefits Plan costs. Save the Community Benefits Plan Budget Justification in a Microsoft Excel file using the following convention for the title: "ControlNumber_CBP_Budget_Justification".

xx. Current and Pending Support

Current and pending support is intended to allow the identification of potential duplication, overcommitment, potential conflicts of interest or commitment, and all other sources of support. As part of the application, the Principal Investigator or Lead Project Manager and all Senior/Key Personnel at the applicant and subrecipient level must provide a list of all sponsored activities, awards, and appointments, whether paid or unpaid; provided as a gift with terms or conditions or provided as a gift without terms or conditions; full-time, part-time, or voluntary; faculty, visiting, adjunct, or honorary; cash or in-kind; foreign or domestic; governmental or private-sector; directly supporting the individual's research or indirectly supporting the individual by supporting students, research staff, space, equipment, or other research expenses. All connections with foreign government-sponsored talent recruitment programs must be identified in current and pending support.

For every activity, list the following items:

- The sponsor of the activity or the source of funding;
- The award or other identifying number;
- The title of the award or activity. If the title of the award or activity is not descriptive, add a brief description of the research being performed that would identify any overlaps or synergies with the proposed research;
- The total cost or value of the award or activity, including direct and indirect costs and cost share. For pending proposals, provide the total amount of requested funding;
- The award period (start date through end date); and
- The person-months of effort per year dedicated to the award or activity.

To identify overlap, duplication of effort, or synergistic efforts, append a description of the other award or activity to the current and pending support.

Details of any obligations, contractual or otherwise, to any program, entity, or organization sponsored by a foreign government must be provided on request to either the applicant institution or DOE. Supporting documents of any identified source of support must be provided to DOE on request, including certified translations of any document.

PIs and Senior/Key Personnel must provide a separate disclosure statement listing the required information above regarding current and pending support. Each individual must sign and date their respective disclosure statement and include the following certification statement:

I, [Full Name and Title], certify to the best of my knowledge and belief that the information contained in this Current and Pending Support Disclosure Statement is true, complete, and accurate. I understand that any false, fictitious, or fraudulent information, misrepresentations, half-truths, or omissions of any material fact, may subject me to criminal, civil, or administrative penalties for fraud, false statements, false claims, or otherwise. (18 U.S.C. §§ 1001 and 287, and 31 U.S.C. §§ 3729-3733 and 3801-3812). I further understand and agree that (1) the statements and representations made herein are material to DOE's funding decision, and (2) I have a responsibility to update the disclosures during the period of performance of the award should circumstances change which impact the responses provided above.

The information may be provided in the approved common disclosure format available at Common Form for Current and Pending (Other) Support (nsf.gov).

Save the Current and Pending Support in a single PDF file using the following convention for the title: "ControlNumber_LeadOrganization_CPS".

Definitions:

Current and pending support – (a) All resources made available, or expected to be made available, to an individual in support of the individual's Research, Development & Deployment (RD&D) efforts, regardless of (i) whether the source is foreign or domestic; (ii) whether the resource is made available through the entity applying for an award or directly to the individual; or (iii) whether the resource has monetary value; and (b) includes in-kind contributions requiring a commitment of time and directly supporting the individual's RD&D efforts, such as the provision of office or laboratory space, equipment, supplies, employees, or students. This term has the same meaning as the term Other Support as applied to researchers in NSPM-33: For researchers, Other Support includes all resources made available to a researcher in support of and/or related to all of their professional RD&D efforts, including resources provided directly to the individual or through the organization, and regardless of whether or not they have monetary value (e.g., even if the support received is only in-kind, such as office/laboratory space, equipment, supplies, or employees). This includes resource and/or financial support from all foreign and domestic entities, including but not limited to gifts provided with terms or conditions, financial support for laboratory personnel, and participation of student and visiting researchers supported by other sources of funding.

Foreign Government-Sponsored Talent Recruitment Program – An effort directly or indirectly organized, managed, or funded by a foreign government, or a foreign government instrumentality or entity, to recruit science and technology professionals or students (regardless of citizenship or national origin, or whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to physically relocate to the foreign state for the above purpose. Some programs allow for or encourage continued employment at United States research facilities or receipt of federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to United States entities. Compensation could take many forms including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

Senior/Key Personnel – An individual who contributes in a substantive, meaningful way to the scientific development or execution of a research, development, and demonstration (RD&D) project proposed to be carried out with a DOE award[16].

xxi. Locations of Work

Applicants must complete the Locations of Work Documentation, available on EERE eXCHANGE at https://eere-exchange.energy.gov/. The applicant must complete the supplied template by listing the city, state, and zip code + 4 digits for each location where project work will be performed by the prime recipient or subrecipient(s). Save the completed template as a Microsoft Excel file using the following convention for the title: "Control Number_LeadOrganization_LOW."

[16] Typically, these individuals have doctoral or other professional degrees, although individuals at the masters or baccalaureate level may be considered senior/key personnel if their involvement meets this definition. Consultants, graduate students, and those with a postdoctoral role also may be considered senior/key personnel if they meet this definition.

xxii. Transparency of Foreign Connections

Applicants must provide the following as it relates to the proposed recipient and subrecipients. Include a separate disclosure for the applicant and each proposed subrecipient. U.S. National Laboratories, domestic government entities, and institutions of higher education are only required to respond to items 1, 2 and 9, and if applying as to serve as the prime recipient, must provide complete responses for project team members that are not U.S. National Laboratories, domestic government entities, or institutions of higher education.

1. Entity name, website address, and physical address;
2. The identity of all owners, principal investigators, project managers, and senior/key personnel who are a party to any *Foreign Government-Sponsored Talent Recruitment Program* of a foreign country of risk (i.e., China, Iran, North Korea, and Russia);
3. The existence of any joint venture or subsidiary that is based in, funded by, or has a foreign affiliation with any foreign country of risk;
4. Any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an enterprise owned by a foreign state or any foreign entity;
5. Percentage, if any, that the proposed recipient or subrecipient has foreign ownership or control;
6. Percentage, if any, that the proposed recipient or subrecipient is wholly or partially owned by an entity in a foreign country of risk;
7. Percentage, if any, of venture capital or institutional investment by an entity that has a general partner or individual holding a leadership role in such entity who has a foreign affiliation with any foreign country of risk;
8. Any technology licensing or intellectual property sales to a foreign country of risk, during the 5-year period preceding submission of the proposal;
9. Any foreign business entity, offshore entity, or entity outside the United States related to the proposed recipient or subrecipient;
10. Complete list of all directors (and board observers), including their full name, citizenship and shareholder affiliation, date of appointment, duration of term, as well as a description of observer rights as applicable;
11. Complete capitalization table for your entity, including all equity interests (including LLC and partnership interests, as well as derivative securities). Include both the number of shares issued to each equity holder, as well as the percentage of that series and all equity on a fully diluted basis. Identify the principal place of incorporation (or organization) for each equity holder. If the equity holder is a natural person, identify the citizenship(s). If the recipient or subrecipient is a publicly traded

company, provide the above information for shareholders with an interest greater than 5 percent;

12. A summary table identifying all rounds of financing, the purchase dates, the investors for each round, and all the associated governance and information rights obtained by investors during each round of financing; and
13. An organization chart to illustrate the relationship between your entity and the immediate parent, ultimate parent, and any intermediate parent, as well as any subsidiary or affiliates. Identify where each entity is incorporated.

DOE reserves the right to request additional or clarifying information based on the information submitted.

Save the Transparency of Foreign Connections information in a single PDF file using the following convention for the title: "ControlNumber_LeadOrganization_TFC."

xxiii. Potentially Duplicate Funding Notice

If the applicant or project team member has other active awards of federal funds, the applicant must determine whether the activities of those awards potentially overlap with the activities set forth in its application to this FOA. If there is a potential overlap, the applicant must notify DOE in writing of the potential overlap and state how it will ensure any project funds (i.e., recipient cost share and federal funds) will not be used for identical cost items under multiple awards. Likewise, for projects that receive funding under this FOA, if a recipient or project team member receives any other award of federal funds for activities that potentially overlap with the activities funded the DOE award, the recipient must promptly notify DOE in writing of the potential overlap and state whether project funds from any of those other federal awards have been, are being, or are to be used (in whole or in part) for one or more of the identical cost items under the DOE award. If there are identical cost items, the recipient must promptly notify the DOE Contracting Officer in writing of the potential duplication and eliminate any inappropriate duplication of funding.

Save the Potentially Duplicative Funding Notice in a single PDF file using the following convention for the title: "ControlNumber_LeadOrganization_PDFN."

E. Content and Form of Replies to Reviewers Comments (Optional Submission)

DOE will provide applicants with reviewer comments following the evaluation of all eligible Full Applications. Applicants have a brief opportunity to prepare a short Reply to Reviewer Comments (Reply). The Reply must not exceed three (3) pages. If a Reply is more than three (3) pages in length, DOE will review only the first three (3) pages and disregard any additional pages. Applicants may use the Reply to respond to one or more comments or to supplement their Full Application. The Reply may include text, graphs, charts, or data.

DOE will post the reviewer comments in EERE eXCHANGE. The expected submission deadline is on the cover page of the FOA; however, it is the applicant's responsibility to monitor EERE eXCHANGE if the expected date changes. The deadline will not be extended for applicants who are unable to timely submit their Reply due to failure to check EERE eXCHANGE or relying on the expected date alone. Applicants should anticipate having approximately three (3) business days to submit a Reply.

Applicants are not required to submit a Reply to Reviewer Comments. DOE will review and consider each eligible Full Application, even if no Reply is submitted or if the Reply is found to be ineligible.

F. Post Selection Information Requests

If selected for award negotiations, DOE reserves the right to require that selected applicants provide additional or clarifying information regarding the application submissions, the project, the project team, the award requirements, and any other matters related to anticipated award. The following is a non-exhaustive list of examples information that may be required:

- Personnel proposed to work on the project and collaborating organizations (See Section VI.B.xviii. Participants and Collaborating Organizations);
- Current and Pending Support (See Sections IV.D.xx and VI.B.xix Current and Pending Support);
- Indirect cost information;
- Other budget information;
- Letters of Commitment from third parties contributing to cost share, if applicable;
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5);
- Information for the DOE Office of Civil Rights to process assurance reviews under 10 CFR 1040;

- Representation of Limited Rights Data and Restricted Software, if applicable;
- Information related to Davis-Bacon Act Requirements;
- Information related to any proposed Workforce and Community Agreement, as defined above in "Community Benefits Plan: Job Quality and Equity," that applicants may have made with the relevant community;
- Any proposed or required Project Labor Agreements; and
- Environmental Questionnaire.

G. Unique Entity Identifier (UEI) and System for Award Management (SAM)

Each applicant (unless the applicant is an individual or federal awarding agency that is excepted from those requirements under 2 CFR 25.110(b) or (c), or has an exception approved by the federal awarding agency under 2 CFR 25.110(d)) is required to: (1) Be registered in the SAM at https://www.sam.gov before submitting its application; (2) provide a valid UEI number in its application; and (3) continue to maintain an active SAM registration with current information at all times during which it has an active federal award or an application or plan under consideration by a federal awarding agency. DOE may not make a federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time DOE is ready to make a federal award, the DOE will determine that the applicant is not qualified to receive a federal award and use that determination as a basis for making a federal award to another applicant.

NOTE: Due to the high demand of UEI requests and SAM registrations, entity legal business name and address validations are taking longer than expected to process. Entities should start the UEI and SAM registration process as soon as possible. If entities have technical difficulties with the UEI validation or SAM registration process they should utilize the **HELP** feature on **SAM.gov**. SAM.gov will work entity service tickets in the order in which they are received and asks that entities not create multiple service tickets for the same request or technical issue. Additional entity validation resources can be found here: GSAFSD Tier 0 Knowledge Base - Validating your Entity**.**

H. Submission Dates and Times

All required submissions must be submitted in EERE eXCHANGE no later than 5 p.m. ET on the dates provided on the cover page of this FOA.

I. Intergovernmental Review

This FOA is not subject to Executive Order 12372 – Intergovernmental Review of Federal Programs.

J. Funding Restrictions

i. Allowable Costs

All expenditures must be allowable, allocable, and reasonable in accordance with the applicable federal cost principles. Pursuant to 2 CFR 910.352, the cost principles in the Federal Acquisition Regulations (48 CFR 31.2) apply to for-profit entities. The cost principles contained in 2 CFR Part 200, Subpart E apply to all entities other than for-profits.

ii. Pre-Award Costs

Applicants selected for award negotiations (selectee) must request prior written approval to charge pre-award costs. Pre-award costs are those incurred prior to the effective date of the federal award directly pursuant to the negotiation and in anticipation of the federal award where such costs are necessary for efficient and timely performance of the scope of work. Such costs are allowable only to the extent that they would have been allowable if incurred after the date of the federal award and **only** with the written approval of the federal awarding agency, through the DOE Contracting Officer.

Pre-award costs cannot be incurred prior to the Selection Official signing the Selection Statement and Analysis.

Pre-award expenditures are made at the selectee's risk. DOE is not obligated to reimburse costs: (1) in the absence of appropriations; (2) if an award is not made; or (3) if an award is made for a lesser amount than the selectee anticipated.

1. **National Environmental Policy Act (NEPA) Requirements Related to Pre-Award Costs**

   DOE's decision whether and how to distribute federal funds under this FOA is subject to NEPA. Applicants should carefully consider and should seek legal counsel or other expert advice before taking any action related to the proposed project that would have an adverse effect on the environment or limit the choice of reasonable alternatives prior to DOE completing the NEPA review process.

   DOE does not guarantee or assume any obligation to reimburse pre-award costs incurred prior to receiving written authorization from the Contracting

Officer. If the applicant elects to undertake activities that DOE determines may have an adverse effect on the environment or limit the choice of reasonable alternatives prior to receiving such written authorization from the Contracting Officer, the applicant is doing so at risk of not receiving federal funding for their project and such costs may not be recognized as allowable cost share. Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Contracting Officer override the requirement to obtain the written authorization from the Contracting Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives. Likewise, if an application is selected for negotiation of award, and the prime recipient elects to undertake activities that are not authorized for federal funding by the Contracting Officer in advance of DOE completing a NEPA review, the prime recipient is doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

iii. Performance of Work in the United States (Foreign Work Waiver)

1. Requirement

All work performed under awards issued under this FOA must be performed in the United States. The prime recipient must flow down this requirement to its subrecipients.

2. Failure to Comply

If the prime recipient fails to comply with the Performance of Work in the United States requirement, DOE may deny reimbursement for the work conducted outside the United States and such costs may not be recognized as allowable recipient cost share. The prime recipient is responsible should any work under this award be performed outside the United States, absent a waiver, regardless of whether the work is performed by the prime recipient, subrecipients, contractors or other project partners.

3. Waiver

To seek a foreign work waiver, the applicant must submit a written waiver request to DOE. Appendix C lists the information that must be included in a request for a foreign work waiver.

Save the waiver request(s) in a single PDF file. The applicant does not have the right to appeal DOE's decision concerning a waiver request.

iv. Construction

Recipients are required to obtain written authorization from the Contracting Officer before incurring any major construction costs.

DOE strongly encourages the use of project labor agreements (PLAs) in connection with construction projects. A PLA is a pre-hire agreement between a private entity (or entities) and a labor organization (or organizations) representing individuals who will be working on the construction project. Applicants that commit to using best-practice project labor agreements will generally be likely to produce a construction workforce plan that meets the criteria in this FOA. By contrast, applicants that do not commit to using a PLA will be required to submit workforce continuity plans and show that they have taken other measures to reduce the risk of delays in project delivery.

For large construction projects, DOE may require a PLA. Assessment of applicability will be conducted on a case-by-case basis.

v. Foreign Travel

Foreign travel costs are not allowable under this FOA.

vi. Equipment and Supplies

Property disposition may be required at the end of a project if the current fair market value of property exceeds $5,000. For-profit entity disposition requirements are set forth at 2 CFR 910.360. Property disposition requirements for other non-federal entities are set forth in 2 CFR 200.310 – 200.316.

However, pursuant to the FY23 Consolidated Appropriations Act (Pub. L. No. 117-328), Division D, Title III, Section 309, the Secretary or a designee of the Secretary may, at their discretion, vest unconditional title or other property interests acquired under this project regardless of the fair market value of the property at the end of the award period.

vii. Buy America Requirements for Infrastructure Projects

Pursuant to the Build America Buy America Act, subtitle IX of BIL (Buy America, or "BABA"),
and in accordance with 2 CFR Part 184, no funds for federal financial assistance , may be used for an infrastructure project unless:

- All iron and steel used in the project are produced in the United States
- All manufactured products used in the project are produced in the United States; and

- All construction materials are manufactured in the United States.

Whether a given project must apply this requirement is project-specific and dependent on several factors, such as the recipient's entity type, whether the work involves "infrastructure," as that term is defined in Section 70914 of the Bipartisan Infrastructure Law, and whether the infrastructure in question is publicly owned or serves a public function.

Applicants are strongly encouraged to consult Appendix D of this FOA to determine whether their project may have to apply this requirement, both to make an early determination as to the need of a waiver, as well as to determine what impact, if any, this requirement may have on the proposed project's budget.

Consistent with M-24-02, the Buy America preference under BABA and 2 CFR part 184 applies to Federal financial assistance to non-federal entities, and for-profit organizations are not considered non-Federal entities. However, this guidance does not alter legal authorities that agencies may have to include the Buy America preference, or other domestic content requirements, in awards of Federal financial assistance issued to for-profit organizations. Federal agencies may consider applying this guidance to for-profit entities consistent with their legal authorities. For example, 2 CFR 200.101(a)(2) allows Federal agencies to apply certain subparts of part 200 to for-profit entities. Subawards should conform to the terms and conditions of the Federal award from which they flow. For example, if a Federal agency obligates an award to a State government as a direct recipient, and the State issues a subaward to a for-profit entity to carry out the project as a subrecipient, then the Buy America preference requirements included in the Federal award would flow down to the for-profit entity. Finally, for all applicants—both non-Federal entities and for-profit entities—DOE is including a Program Policy Factor that the Selection Official may consider in determining which Full Applications to select for award negotiations that considers whether the applicant has made a commitment to procure U.S. iron, steel, manufactured products, and construction materials in its project.

The DOE financial assistance agreement will require each recipient: (1) to fulfill the commitments made in its application regarding the procurement of U.S.-produced products and (2) to fulfill the commitments made in its application regarding the procurement of other key component metals and manufactured products domestically that are deemed available in sufficient and reasonably available quantities or of a satisfactory quality at the time of award negotiation. Applicants may seek waivers of these requirements in very limited circumstances

and for good cause shown. Further details on requesting a waiver can be found in Appendix D and the terms and conditions of an award.

Applicants are strongly encouraged to consult Appendix D for more information.

viii. Davis-Bacon Act Requirements

Projects awarded under this FOA will be funded under Division D of the Bipartisan Infrastructure Law. Accordingly, per section 41101 of that law, all laborers and mechanics employed by the recipient, subrecipients, contractors or subcontractors in the performance of construction, alteration, or repair work funded in whole or in part under this FOA shall be paid wages at rates not less than those prevailing on similar projects in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code commonly referred to as the "Davis-Bacon Act" (DBA).

Applicants shall provide written assurance acknowledging the DBA requirements above, and confirming that the laborers and mechanics performing construction, alteration, or repair work on projects funded in whole or in part by awards made as a result of this FOA are paid or will be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by subchapter IV of Chapter 31 of Title 40, United States Code (Davis-Bacon Act).

Applicants acknowledge that they will comply with all of the Davis-Bacon Act requirements, including but not limited to:

(1) ensuring that the wage determination(s) and appropriate Davis-Bacon clauses and requirements are flowed down to and incorporated into any applicable subcontracts or subrecipient awards.
(2) ensuring that if wage determination(s) and appropriate Davis-Bacon clauses and requirements are improperly omitted from contracts and subrecipient awards, the applicable wage determination(s) and clauses are retroactively incorporated to the start of performance.
(3) being responsible for compliance by any subcontractor or subrecipient with the Davis-Bacon labor standards.
(4) receiving and reviewing certified weekly payrolls submitted by all subcontractors and subrecipients for accuracy and to identify potential compliance issues.
(5) maintaining original certified weekly payrolls for 3 years after the completion of the project and must make those payrolls available to the DOE or the United States Department of Labor (DOL) upon request, as required by 29 CFR 5.6(a)(2).
(6) conducting payroll and job-site reviews for construction work, including interviews with employees, with such frequency as may be necessary to

assure compliance by its subcontractors and subrecipients and as requested or directed by the DOE.

(7) cooperating with any authorized representative of the Department of Labor in their inspection of records, interviews with employees, and other actions undertaken as part of a DOL investigation.

(8) posting in a prominent and accessible place the wage determination(s) and DOL Publication: WH-1321, Notice to Employees Working on Federal or Federally Assisted Construction Projects.

(9) notifying the Contracting Officer of all labor standards issues, including all complaints regarding incorrect payment of prevailing wages and/or fringe benefits, received from the recipient, subrecipient, contractor, or subcontractor employees; significant labor standards violations, as defined in 29 CFR 5.7; disputes concerning labor standards pursuant to 29 CFR parts 4, 6, and 8 and as defined in FAR 52.222-14; disputed labor standards determinations; DOL investigations; or legal or judicial proceedings related to the labor standards under this Contract, a subcontract, or subrecipient award.

(10) preparing and submitting to the Contracting Officer, the Office of Management and Budget Control Number 1910-5165, Davis Bacon Semi-Annual Labor Compliance Report, by April 21 and October 21 of each year. Form submittal will be administered through the iBenefits system (https://doeibenefits2.energy.gov), its successor system, or other manner of compliance as directed by the Contracting Officer.

Recipients of funding under this FOA will also be required to undergo Davis-Bacon Act compliance training and to maintain competency in Davis-Bacon Act compliance. The Contracting Officer will notify the recipient of any DOE sponsored Davis-Bacon Act compliance trainings. The DOL offers free Prevailing Wage Seminars several times a year that meet this requirement, at https://www.dol.gov/agencies/whd/government-contracts/construction/seminars/events.

For additional guidance on how to comply with the Davis-Bacon provisions and clauses, see https://www.dol.gov/agencies/whd/government-contracts/construction and https://www.dol.gov/agencies/whd/government-contracts/protections-for-workers-in-construction.

DOE contracted with a third party for a Davis-Bacon Act electronic payroll compliance software application. Recipients of funding under this FOA must ensure the timely electronic submission of weekly certified payrolls through this software as part of its compliance with the Davis-Bacon Act unless a waiver is granted to a particular contractor or subcontractor because it is unable or

limited in its ability to use or access. Applicants should indicate if they will seek a waiver. See https://www.energy.gov/infrastructure/davis-bacon-act

ix. Lobbying

Recipients and subrecipients may not use any federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Recipients and subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (https://www.grants.gov/forms/forms-repository/sf-424-individual-family) to ensure that non-federal funds have not been paid and will not be paid to any person for influencing or attempting to influence any of the following in connection with the application:

- An officer or employee of any federal agency;
- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

x. Risk Assessment

Pursuant to 2 CFR 200.206, DOE will conduct an additional review of the risk posed by applications submitted under this FOA. Such risk assessment will consider:

1. Financial stability;
2. Quality of management systems and ability to meet the management standards prescribed in 2 CFR 200 as supplemented by 2 CFR 910;
3. History of performance;
4. Audit reports and findings; and
5. The applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-federal entities.

DOE may make use of other publicly available information and the history of an applicant's performance under DOE or other federal agency awards.

Depending on the severity of the findings and whether the findings were resolved, DOE may elect not to fund the applicant.

In addition to this review, DOE must comply with the guidelines on government-wide suspension and debarment in 2 CFR Part 180, and must require non-federal entities to comply with these provisions. These provisions restrict federal awards, subawards and contracts with certain parties that are debarred,

suspended or otherwise excluded from or ineligible for participation in federal programs or activities.

Further, as DOE invests in critical infrastructure and funds critical and emerging technology areas, DOE also considers possible threats to United States research, technology, and economic security from undue foreign government influence when evaluating risk. If high risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the applicant. As part of the research, technology, and economic security risk review, DOE may contact the applicant and/or proposed project team members for additional information to inform the review. This risk review is conducted separately from the technical merit review.

xi. Invoice Review and Approval

DOE employs a risk-based approach to determine the level of supporting documentation required for approving invoice payments. Recipients may be required to provide some or all of the following items with their requests for reimbursement:

- Summary of costs by cost categories;
- Timesheets or personnel hours report;
- Proof of compliance with Davis-Bacon and electronic submittals of certified payroll reports;
- Invoices/receipts for all travel, equipment, supplies, contractual, and other costs;
- Uniform Commercial Code (UCC) filing proof for equipment acquired with project funds by for-profit recipients and subrecipients;
- Explanation of cost share for invoicing period;
- Analogous information for some subrecipients; and
- Other items as required by DOE.

xii. Prohibition Related to Foreign Government-Sponsored Talent Recruitment Programs

a. Prohibition

Persons participating in a *Foreign Government-Sponsored Talent Recruitment Program of a Foreign Country of Risk* are prohibited from participating in projects selected for federal funding under this FOA. Should an award result from this FOA, the recipient must exercise ongoing due diligence to reasonably ensure that no individuals participating on the DOE-funded project are participating in a *Foreign Government-Sponsored Talent Recruitment Program of a Foreign Country of Risk*. Consequences for violations of this prohibition will be determined according to applicable law, regulations, and policy. Further, the recipient must notify DOE within five (5)

business days upon learning that an individual on the project team is or is believed to be participating in a foreign government talent recruitment program of a foreign country of risk. DOE may modify and add requirements related to this prohibition to the extent required by law.

b. Definitions

1. **Foreign Government-Sponsored Talent Recruitment Program.** An effort directly or indirectly organized, managed, or funded by a foreign government, or a foreign government instrumentality or entity, to recruit science and technology professionals or students (regardless of citizenship or national origin, or whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to relocate physically to the foreign state for the above purpose. Some programs allow for or encourage continued employment at United States research facilities or receipt of Federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to U.S. entities. Compensation could take many forms including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

2. **Foreign Country of Risk.** DOE has designated the following countries as foreign countries of risk: Iran, North Korea, Russia, and China. This list is subject to change.

xiii. Affirmative Action and Pay Transparency Requirements

All applicants must comply with all applicable federal labor and employment laws, including but not limited to Title VII of the Civil Rights Act of 1964, the Fair Labor Standards Act, the Occupational Safety and Health Act, and the National Labor Relations Act, which protects employees' right to bargain collectively and engage in concerted activities for the purpose of workers' mutual aid or protection.

All federally assisted construction contracts exceeding $10,000 annually will be subject to the requirements of Executive Order 11246, Equal Employment Opportunity:

(1) Recipients, subrecipients, contractors, and subcontractors are prohibited from discriminating in employment decisions on the basis of race, color, religion, sex, sexual orientation, gender identity or national origin.
(2) Recipients and contractors are required to take affirmative action to ensure that equal opportunity is provided in all aspects of their employment. This includes flowing down the appropriate language to all subrecipients contractors, and subcontractors.
(3) Recipients, subrecipients, contractors, and subcontractors are prohibited from taking adverse employment actions against applicants and employees for asking about, discussing, or sharing information about their pay or, under certain circumstances, the pay of their co-workers.

The Department of Labor's (DOL) Office of Federal Contractor Compliance Programs (OFCCP) uses a neutral process to schedule compliance evaluations. Consult OFCCP's Technical Assistance Guide[17] to gain an understanding of the requirements and possible required actions the recipients, subrecipients, contractors, and subcontractors must take. Additional guidance may also be found in the National Policy Assurances, produced by DOE.

Additionally, for construction projects valued at $35 million or more and lasting more than one year, the recipients, subrecipients, contractors, and subcontractors may be selected by the OFCCP to participate in the *Mega Construction Project Program*. DOE, under relevant legal authorities including Sections 205 and 303(a) of Executive Order 11246, will require participation as a condition of the award. This program offers extensive compliance assistance with EO 11246. For more information regarding this program, see https://www.dol.gov/agencies/ofccp/construction/mega-program.

xiv. Foreign Collaboration Considerations

a. Consideration of new collaborations with foreign entities, organizations, and governments. The recipient will be required to provide DOE with advanced written notification of any potential collaboration with foreign entities, organizations, or governments in connection with its DOE-funded award scope. The recipient will then be required to await further guidance from DOE prior to contacting the proposed foreign entity, organization, or

[17] See OFCCP's Technical Assistance Guide at: https://www.dol.gov/sites/dolgov/files/ofccp/Construction/files/ConstructionTAG.pdf?msclkid=9e397d68c4b111ec9d8e6fecb6c710ec Also see the National Policy Assurances http://www.nsf.gov/awards/managing/rtc.jsp

government regarding the potential collaboration or negotiating the terms of any potential agreement.

b. Existing collaborations with foreign entities, organizations, and governments. The recipient will be required to provide DOE with a written list of all existing foreign collaborations in which has entered in connection with its DOE-funded award scope.

c. Description of collaborations that should be reported. In general, a collaboration will involve some provision of a thing of value to, or from, the recipient. A thing of value includes but may not be limited to all resources made available to, or from, the recipient in support of and/or related to the DOE award, regardless of whether or not they have monetary value. Things of value also may include in-kind contributions (such as office/laboratory space, data, equipment, supplies, employees, students). In-kind contributions not intended for direct use on the DOE award but resulting in provision of a thing of value from or to the DOE award must also be reported. Collaborations do not include routine workshops, conferences, use of the recipient's services and facilities by foreign investigators resulting from its standard published process for evaluating requests for access, or the routine use of foreign facilities by awardee staff in accordance with the recipient's standard policies and procedures.

V. Application Review Information

A. Technical Review Criteria

i. Concept Papers

Concept Papers are evaluated based on consideration the following factors. All sub-criteria are of equal weight.

Concept Paper Criterion: Overall FOA Responsiveness and Viability of the Project (Weight: 100%)

This criterion involves consideration of the following factors:

- The applicant clearly describes the problem being addressed by the project, the project goal, and what project approach will be used within the scope of the project;
- The applicant demonstrates adequate involvement from intended partnerships;
- The applicant has the qualifications, experience, capabilities, and other resources necessary to complete the proposed project;

- The proposed project clearly meets the requirements of the Topic area; and
- The proposed work, if successfully accomplished, would have a meaningful impact on the problem targeted by the Topic area.

ii. Full Applications

Applications will be evaluated against the technical review criteria shown below. All sub-criteria are of equal weight.

Criterion 1: Project Approach and Impact (30%)
This criterion involves consideration of the following factors:

1a. Extent to which the proposed project goals are relevant to the Topic area objectives, the project approach meets the general and specific requirements of the Topic and has merit;
1b. Extent to which the application objectively describes the current state of the market applicable to the Topic, and how the project outcomes will measurably and durably advance the state of the market;
1c. Extent to which the community that will be affected by the project is involved in the design and implementation of the project activities; and
1d. Extent to which the project includes activities to produce and share valuable insights, best practices, or other outputs that will effectively enable others to replicate the project successes.

Criterion 2: Project Plan (25%)
This criterion involves consideration of the following factors:

2a. Extent to which the workplan clearly defines the scope, tasks, milestones, and schedule of the project such that the parameters of the project are appropriately defined, the tasks are logically ordered, the task durations are reasonable, and that the overall plan will result in successful achievement of project outputs, outcomes, and goals;
2b. Reasonableness of the team's approach to project management and controls as defined in the technical volume, including the extent to which the involvement of project team organizations/individuals are defined in relation to specific work tasks, milestones and deliverables, the quality of the plan for communication among team members, and the thoroughness of the risk management plan; and
2c. Reasonableness of the proposed plan for collecting, managing, and sharing project data.

Criterion 3: Project Team and Qualifications (25%)
This criterion involves consideration of the following factors:

3a. Extent of key personnel qualifications, expertise, and experience, in relation to project and Topic objectives;
3b. Extent of the alignment between the team organizations' missions/strategic goals with the objectives of the Topic and with the teaming arrangement proposed by the Topic; and
3c. Appropriateness of the resource commitments proposed by project partners or other key participants as validated by letters of commitment.

Criterion 4: Community Benefits Plan (20%)
This criterion involves consideration of the following factors (to be evaluated equally):

4a. Community and Labor Engagement

- Extent to which the applicant demonstrates community and labor engagement to date that results in support for the proposed project;
- Extent to which the applicant has a clear and appropriately robust plan to engage—ideally through a clear commitment to negotiate an enforceable Workforce & Community Agreements--with labor unions, Tribal entities, and community-based organizations that support or work with disadvantaged communities and other affected stakeholders;
- Extent to which the applicant has considered accountability to affected workers and community stakeholders, including those most vulnerable to project activities with a plan to publicly share SMART community benefits plan commitments; and
- Extent to which the applicant demonstrates that community and labor engagement will lead to the delivery of high-quality jobs, minimal environmental impact, and allocation of project benefits to disadvantaged communities.

4b. Job Quality and Workforce Continuity

- Quality and manner in which the proposed project will create and/or retain high quality, good-paying jobs with employer-sponsored benefits for all classifications and phases of work;
- Extent to which the project provides employees with the ability to organize, bargain collectively, and participate, through labor organizations of their choosing, in decisions that affect them and that contribute to the effective conduct of business and facilitates amicable settlements of any potential disputes between employees and employers, providing assurances of project efficiency, continuity, and multiple public benefits; and
- Extent to which applicant demonstrates that they are a responsible employer, with ready access to a sufficient supply of appropriately skilled

labor, and an effective plan to minimize the risk of labor disputes or disruptions.

4c. Diversity, Equity, Inclusion, and Accessibility

- Extent to which the Community Benefits Plan includes specific and high-quality actions to meet DEIA goals, which may include DEIA recruitment procedures, supplier diversity plans, and other DEIA initiatives; and
- Quality of any partnerships and agreements with apprenticeship readiness programs, or community-based workforce training and support organizations serving workers facing systematic barriers to employment to facilitate participation in the project's construction and operations.

4d. Justice40 Initiative

- Extent to which the Community Benefits Plan identifies: specific, measurable benefits for disadvantaged communities, how the benefits will flow to disadvantaged communities, and how negative environmental and/or economic impacts affecting disadvantaged communities would be mitigated; and
- Extent to which the project would contribute to meeting the objective that 40% of the overall benefits of climate and clean energy investments flow to disadvantaged communities.

iii. Criteria for Replies to Reviewer Comments

DOE has not established separate criteria to evaluate Replies to Reviewer Comments. Instead, Replies to Reviewer Comments are attached to the original applications and evaluated as an extension of the Full Application.

B. Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with this FOA, by the standards set forth in EERE's Notice of Objective Merit Review Procedure (76 Fed. Reg. 17846, March 31, 2011) and the guidance provided in the "DOE Merit Review Guide for Financial Assistance," effective October 1, 2020, which is available at: Merit Review Guide for Financial Assistance and Unsolicited Proposals - Current Guides | Department of Energy

C. Other Selection Factors

i. Program Policy Factors

In addition to the above criteria, the Selection Official may consider the following program policy factors in determining which Full Applications to select for award negotiations:

- The degree to which the proposed project exhibits technological diversity when compared to the existing DOE project / agency portfolio and other projects selected from the subject FOA;

- The degree to which the proposed project, including proposed cost share, optimizes the use of available DOE funding to achieve programmatic objectives;
- The level of industry involvement and demonstrated ability to accelerate demonstration and commercialization and overcome key market barriers;
- The degree to which the proposed project is likely to lead to increased high-quality employment and manufacturing in the United States;
- The degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty;
- The degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications);
- The degree to which the proposed project expands equitable access for and outreach to potential applicant or team members from Minority Serving Institutions (e.g., Historically Black Colleges and Universities (HBCUs)/other Minority Serving Institutions); and access and outreach for Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or Indian Tribes Nations;
- The degree to which the proposed project, when compared to the existing DOE project portfolio and other projects to be selected from the subject FOA, contributes to the total portfolio meeting the goals reflected in the Community Benefits Plan criteria;
- The degree to which the proposed project will employ procurement of U.S. iron, steel, manufactured products, and construction materials;
- The degree to which the proposed project collectively represents a diversity of applicant types and sizes of applicant organizations;
- The degree to which the proposed project has broad public support from the communities most directly impacted by the project;
- The degree to which the proposed project avoids duplication/overlap with other publicly or privately funded work;
- The degree to which the proposed project supports complementary efforts or projects, which, when taken together, will best achieve the research goals and objectives;
- The degree to which the proposed project enables new and expanding market segments;
- The degree to which the project's solution or strategy will maximize deployment or replication; and
- The degree to which the project promotes increased coordination with nongovernmental entities for demonstration of technologies and research applications to facilitate technology transfer.

D. Evaluation and Selection Process

i. Overview

The evaluation process consists of multiple phases; each includes an initial eligibility review and a thorough technical review. Rigorous technical reviews of eligible submissions are conducted by reviewers that are experts in the subject matter of the FOA. Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors and risk reviews, in determining which applications to select.

ii. Pre-Selection Clarification

DOE may determine that pre-selection clarifications are necessary from one or more applicants. Pre-selection clarifications are distinct from and less formal than pre-selection interviews. These pre-selection clarifications will solely be for the purposes of clarifying the application. The pre-selection clarifications may occur before, during or after the merit review evaluation process. Information provided by an applicant that is not necessary to address the pre-selection clarification question will not be reviewed or considered. Typically, a pre-selection clarification will be carried out through either written responses to DOE's written clarification questions or video or conference calls with DOE representatives.

The information provided by applicants to DOE through pre-selection clarifications is incorporated in their applications and contributes to the merit review evaluation and DOE's selection decisions. If DOE contacts an applicant for pre-selection clarification purposes, it does not signify that the applicant has been selected for negotiation of award or that the applicant is among the top ranked applications.

DOE will not reimburse applicants for expenses relating to the pre-selection clarifications, nor will these costs be eligible for reimbursement as pre-award costs.

iii. Recipient Responsibility and Qualifications

DOE, prior to making a federal award with a total amount of federal share greater than the simplified acquisition threshold, is required to review and consider any responsibility and qualification information about the applicant that is in the entity information domain in SAM.gov (see 41 U.S.C. § 2313).

The applicant, at its option, may review information in the entity information domain in SAM.gov and comment on any information about itself that a federal awarding agency previously entered and is currently in the entity information domain in SAM.gov.

DOE will consider any written comments by the applicant, in addition to the other information in the entity information domain in SAM.gov, in making a judgment about the applicant's integrity, business ethics, and record of performance under federal awards when completing the review of risk posed by applicants as described in 2 CFR 200.206.

iv. Selection

The Selection Official may consider the technical merit, the Federal Consensus Board's recommendations, program policy factors, risk reviews, and the amount of funds available in arriving at selections for this FOA.

E. Anticipated Notice of Selection and Award Negotiation Dates

DOE anticipates notifying applicants selected for negotiation of award and negotiating awards by the dates provided on the cover page of this FOA.

VI. Award Administration Information

A. Award Notices

i. Ineligible Submissions

Ineligible Concept Papers and Full Applications will not be further reviewed or considered for award. The Contracting Officer will send a notification letter by email to the technical and administrative points of contact designated by the applicant in EERE eXCHANGE. The notification letter will state the basis upon which the Concept Paper or the Full Application is ineligible and not considered for further review.

ii. Concept Paper Notifications

DOE will notify applicants of its determination to encourage or discourage the submission of a Full Application. DOE will send a notification letter by email to the technical and administrative points of contact designated by the applicant on the Concept Paper cover page.

Applicants may submit a Full Application even if they receive a notification discouraging them from doing so. By discouraging the submission of a Full Application, DOE intends to convey its lack of programmatic interest in the

proposed project. Such assessments do not necessarily reflect judgments on the merits of the proposed project. The purpose of the Concept Paper phase is to save applicants the considerable time and expense of preparing a Full Application that is unlikely to be selected for award negotiations.

A notification encouraging the submission of a Full Application does not authorize the applicant to commence performance of the project. Please refer to Section IV.J.ii. of the FOA for guidance on pre-award costs.

iii. Full Application Notifications

DOE will notify applicants of its determination via a notification letter by email to the technical and administrative points of contact designated by the applicant in EERE eXCHANGE. The notification letter will inform the applicant whether or not its Full Application was selected for award negotiations. Alternatively, DOE may notify one or more applicants that a final selection determination on particular Full Applications will be made at a later date, subject to the availability of funds or other factors.

iv. Successful Applicants

Successful applicants will receive written notification that they have been selected for award negotiations. Receipt of a notification letter selecting a Full Application for award negotiations does not authorize the applicant to commence performance of the project. If an application is selected for award negotiations, it is not a commitment by DOE to issue an award nor is it a guarantee of federal government funding. Applicants do not receive an award unless and until award negotiations are complete and the Contracting Officer executes the funding agreement, accessible by the prime recipient in FedConnect.

The award negotiation process takes approximately 60-90 days. Applicants must designate a primary and a backup point-of-contact in EERE eXCHANGE with whom DOE will communicate to conduct award negotiations. The applicant must be responsive during award negotiations (i.e., provide requested documentation) and meet the negotiation deadlines. If the applicant fails to do so or if award negotiations are otherwise unsuccessful, DOE will cancel the award negotiations and rescind the selection. DOE reserves the right to terminate award negotiations at any time for any reason.

Please refer to Section IV.J.ii. of the FOA for guidance on pre-award costs.

v. Alternate Selection Determinations

In some instances, an applicant may receive a notification that its application was not selected for award and DOE designated the application to be an alternate. As an alternate, DOE may consider the Full Application for federal funding in the future. A notification letter stating the Full Application is designated as an alternate does not authorize the applicant to commence performance of the project. DOE may ultimately determine to select or not select the Full Application for award negotiations.

vi. Unsuccessful Applicants

DOE shall promptly notify in writing each applicant whose application has not been selected for award or whose application cannot be funded because of the unavailability of appropriated funds.

B. Administrative and National Policy Requirements

i. Registration Requirements

There are several one-time actions before submitting an application in response to this FOA, and it is vital that applicants address these items as soon as possible. Some may take several weeks, and failure to complete them could interfere with an applicant's ability to apply to this FOA, or to meet the negotiation deadlines and receive an award if the application is selected. These requirements are as follows:

1. **EERE Funding Opportunity Exchange (eXCHANGE)**
   Register and create an account on EERE eXCHANGE at https://eere-eXCHANGE.energy.gov. This account will allow the user to apply to any open EERE FOAs in EERE eXCHANGE.

   To access EERE eXCHANGE, potential applicants must have a Login.gov account. As part of the eXCHANGE registration process, new users will be directed to create an account in Login.gov. 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 Manuals section of eXCHANGE.

   Each organization or business unit, whether acting as a team or a single entity, should use only one account as the contact point for each submission. Applicants must also designate backup points of contact. **This step is required to apply to this FOA.** The eXCHANGE registration does

not have a delay; however, **the remaining registration requirements below could take several weeks to process and are necessary for a potential applicant to receive an award under this FOA.**

2. **System for Award Management**
   Register with the SAM at https://www.sam.gov. Please update your SAM registration annually.

3. **FedConnect**
   Register in FedConnect at https://www.fedconnect.net.

4. **Grants.gov**
   Register in Grants.gov (https://www.grants.gov/) to receive automatic updates when Amendments to this FOA are posted. However, please note that Concept Papers and Full Applications will **not** be accepted through Grants.gov.

5. **Electronic Authorization of Applications and Award Documents**
   Submission of an application and supplemental information under this FOA through electronic systems used by the DOE, including EERE eXCHANGE, and FedConnect.net, constitutes the authorized representative's approval and electronic signature.

ii. Award Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR Part 200 supplemented by 2 CFR Part 910.

iii. Foreign National Participation

All applicants selected for an award under this FOA and project participants (including subrecipients and contractors) who anticipate involving foreign nationals in the performance of an award, will be required to provide DOE with specific information about each foreign national to satisfy requirements for foreign national participation and access approvals. The volume and type of information collected may depend on various factors associated with the award. DOE concurrence may be required before a foreign national can participate in the performance of any work under an award.

Approval for foreign nationals in Principal Investigator/Co-Investigator roles, from countries of risk (i.e., China, Iran, North Korea, and Russia), or from countries identified on the U.S. Department of State's list of State Sponsors of Terrorism (https://www.state.gov/state-sponsors-of-terrorism/) may require

written authorization from DOE before they can participate in the performance of any work under an award.

A "foreign national" is defined as any person who is not a United States citizen by birth or naturalization. DOE may elect to deny foreign national's participation in the award. Likewise, DOE may elect to deny a foreign national's access to a DOE sites, information, technologies, equipment, programs, or personnel.

Applicants selected for award negotiations must include this requirement in subawards.

iv. Subaward and Executive Reporting

Additional administrative requirements necessary for DOE grants and cooperative agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR Part 170. Prime recipients must register with the new FFATA Subaward Reporting System database and report the required data on their first tier subrecipients. Prime recipients must report the executive compensation for their own executives as part of their registration profile in SAM.

v. National Policy Requirements

The National Policy Assurances that are incorporated as a term and condition of award are located at: http://www.nsf.gov/awards/managing/rtc.jsp.

vi. Environmental Review in Accordance with National Environmental Policy Act (NEPA)

DOE's decision whether and how to distribute federal funds under this FOA is subject to NEPA (42 U.S.C. § 4321, *et seq.*). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website, at https://www.energy.gov/nepa.

While NEPA compliance is a federal agency responsibility and the ultimate decisions remain with the federal agency, all recipients selected for an award will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their proposed project. If DOE determines certain records must be prepared to complete the NEPA review process (e.g., biological evaluations or environmental assessments), the recipient may be required to prepare the records and the costs to prepare the necessary records may be included as part of the project costs.

vii. Flood Resilience

Applications should indicate whether the proposed project location(s) is within a floodplain, how the floodplain was defined, and how future flooding will factor into the project's design. The base floodplain long used for planning has been the 100-year floodplain, that is, a floodplain with a 1.0 percent chance of flooding in any given year. As directed by Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input (2015), Federal agencies, including DOE, continue to avoid development in a floodplain to the extent possible. When doing so is not possible, Federal agencies are directed to "expand management from the current base flood level to a higher vertical elevation and corresponding horizontal floodplain to address current and future flood risk and ensure that projects funded with taxpayer dollars last as long as intended." The higher flood elevation is based on one of three approaches: climate-informed science (preferred), freeboard value, or 0.2 percent annual flood change (500-year floodplain). EO 13690 and related information is available at https://www.energy.gov/nepa/articles/eo-13690-establishing-federal-flood-risk-management-standard-and-process-further.

viii. Applicant Representations and Certifications

1. Lobbying Restrictions

By accepting funds under this award, the prime recipient agrees that none of the funds obligated on the award shall be expended, directly or indirectly, to influence Congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

2. Corporate Felony Conviction and Federal Tax Liability Representations

In submitting an application in response to this FOA, the applicant represents that:

- **a.** It is **not** a corporation that has been convicted of a felony criminal violation under any federal law within the preceding 24 months; and
- **b.** It is **not** a corporation that has any unpaid federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

For purposes of these representations, a corporation is any for-profit or nonprofit entity that has filed articles of incorporation in any of the 50 states,

the District of Columbia, or the various territories of the United States [but not foreign corporations]. It includes both for-profit and non-profit organizations.

3. **Nondisclosure and Confidentiality Agreements Representations**
In submitting an application in response to this FOA the applicant represents that:
    a. It **does not and will not** require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contactors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a federal department or agency authorized to receive such information.
    b. It **does not and will not** use any federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:
        (1) *''These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive Order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive Orders and statutory provisions are incorporated into this agreement and are controlling.''*
        (2) The limitation above shall not contravene requirements applicable to Standard Form 312 Classified Information Nondisclosure Agreement (https://fas.org/sgp/othergov/sf312.pdf), Form 4414 Sensitive Compartmented Information Disclosure Agreement (https://fas.org/sgp/othergov/intel/sf4414.pdf), or any other form issued by a federal department or agency governing the nondisclosure of classified information.
        (3) Notwithstanding the provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity, other than

an employee or officer of the United States government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

ix. Statement of Federal Stewardship

DOE will exercise normal federal stewardship in overseeing the project activities performed under DOE awards. Stewardship Activities include, but are not limited to, conducting site visits; reviewing performance and financial reports; providing assistance and/or temporary intervention in unusual circumstances to correct deficiencies that develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the project objectives have been accomplished.

x. Statement of Substantial Involvement

DOE has substantial involvement in work performed under awards made as a result of this FOA. DOE does not limit its involvement to the administrative requirements of the award. Instead, DOE has substantial involvement in the direction and redirection of the technical aspects of the project as a whole. Substantial involvement includes, but is not limited to, the following:

1. DOE shares responsibility with the recipient for the management, control, direction, and performance of the project.
2. DOE may intervene in the conduct or performance of work under this award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
3. DOE may redirect or discontinue funding the project based on the outcome of DOE's evaluation of the project at the Go/No-Go decision point(s).
4. DOE participates in major project decision-making processes.

xi. Subject Invention Utilization Reporting

To ensure that prime recipients and subrecipients holding title to subject inventions are taking the appropriate steps to commercialize subject inventions, DOE may require that each prime recipient holding title to a subject invention

submit annual reports for ten (10) years from the date the subject invention was disclosed to DOE on the utilization of the subject invention and efforts made by prime recipient or their licensees or assignees to stimulate such utilization. The reports must include information regarding the status of development, date of first commercial sale or use, gross royalties received by the prime recipient, and such other data and information as DOE may specify.

xii. Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards.

xiii. Reporting

Reporting requirements are identified on the Federal Assistance Reporting Checklist and Instructions, DOE F 4600.2, attached to the award agreement.

Additional reporting requirements apply to projects funded by BIL. DOE may require specific data collection to track progress toward key departmental goals: ensuring justice and equity, investing in the American workforce, boosting domestic manufacturing, reducing greenhouse gas emissions, and advancing a pathway to private sector deployment. Examples of data that may be collected include:

- New manufacturing production or recycling capacity;
- Jobs data including;
  - Number and types of jobs provided, wages and benefits paid;
  - Workforce demographics, including local hires;
  - Efforts to minimize risks of labor disputes and disruptions;
  - Contributions to ratio of apprentice-to-journey level workers employed.
- Number of trainings completed, trainees placed in full-time employment, or number of trainings with workforce partnerships involving employers, community-based organizations, or labor unions;
- Justice and Equity data, including:
  - Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses and Veteran Owned Businesses acting as vendors and sub-contractors for bids on supplies, services and equipment;
  - Value, number, and type of partnerships with Minority Serving Institutions (MSIs);
  - Stakeholder engagement events, consent-based siting activities;
  - Other relevant indicators from the Community Benefits Plan.
- Number and type of energy efficient and clean energy equipment installed;

- Funding leveraged, follow-on-funding, Intellectual Property (IP) Generation and IP Utilization.

xiv. Go/No-Go Review

Each project selected under this FOA will be subject to a periodic project evaluation referred to as a Go/No-Go Review. A Go/No-Go Review is a risk management tool and a project management best practice to ensure that, for the current phase or period of performance, technical success is definitively achieved and potential for success in future phases or periods of performance is evaluated, prior to actually beginning the execution of future phases. At the Go/No-Go decision points, DOE will evaluate project performance, project schedule adherence, the extent milestone objectives are met, compliance with reporting requirements, and overall contribution to the program goals and objectives. Federal funding beyond the Go/No-Go decision point (continuation funding) is contingent upon (1) availability of federal funds appropriated by Congress for the purpose of this program; (2) the availability of future-year budget authority; (3) recipient's technical progress compared to the Milestone Summary Table stated in Attachment 1 of the award; (4) recipient's submittal of required reports; (5) recipient's compliance with the terms and conditions of the award; (6) DOE's Go/No-Go decision; (7) the recipient's submission of a continuation application[18]; and (8) written approval of the continuation application by the Contracting Officer.

As a result of the Go/No-Go Review, DOE may, at its discretion, authorize the following actions: (1) continue to fund the project, contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority; (2) recommend redirection of work under the project; (3) place a hold on federal funding for the project, pending further supporting data or funding; or (4) discontinue funding the project because of insufficient progress, change in strategic direction, or lack of funding.

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[18] A continuation application is a non-competitive application for an additional budget period within a previously approved project period. At least ninety (90) days before the end of each budget period, the recipient must submit its continuation application, which includes the following information:

i. A progress report on the project objectives, including significant findings, conclusions, or developments, and an estimate of any unobligated balances remaining at the end of the budget period. If the remaining unobligated balance is estimated to exceed 20 percent of the funds available for the budget period, explain why the excess funds have not been obligated and how they will be used in the next budget period.
ii. A detailed budget and supporting justification if there are changes to the negotiated budget, or a budget for the upcoming budget period was not approved at the time of award.
iii. A description of any planned changes from the SOPO and/or Milestone Summary Table.

The Go/No-Go decision is distinct from a non-compliance determination. In the event a recipient fails to comply with the requirements of an award, DOE may take appropriate action, including but not limited to, redirecting, suspending or terminating the award.

xv. Conference Spending

The recipient shall not expend any funds on a conference not directly and programmatically related to the purpose for which the grant or cooperative agreement was awarded that would defray the cost to the United States government of a conference held by any Executive branch department, agency, board, commission, or office for which the cost to the United States government would otherwise exceed $20,000, thereby circumventing the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General (or senior ethics official for any entity without an Inspector General), of the date, location, and number of employees attending such conference.

xvi. Uniform Commercial Code (UCC) Financing Statements

Per 2 CFR 910.360 (Real Property and Equipment) when a piece of equipment is purchased by a for-profit recipient or subrecipient with federal funds, and when the federal share of the financial assistance agreement is more than $1,000,000, the recipient or subrecipient must:

Properly record, and consent to the Department's ability to properly record if the recipient fails to do so, UCC financing statement(s) for all equipment in excess of $5,000 purchased with project funds. These financing statement(s) must be approved in writing by the Contracting Officer prior to the recording, and they shall provide notice that the recipient's title to all equipment (not real property) purchased with federal funds under the financial assistance agreement is conditional pursuant to the terms of this section, and that the government retains an undivided reversionary interest in the equipment. The UCC financing statement(s) must be filed before the Contracting Officer may reimburse the recipient for the federal share of the equipment unless otherwise provided for in the relevant financial assistance agreement. The recipient shall further make any amendments to the financing statements or additional recordings, including appropriate continuation statements, as necessary or as the Contracting Officer may direct.

xvii. Implementation of Executive Order 13798, Promoting Free Speech and Religious Liberty

States, local governments, or other public entities may not condition sub-awards in a manner that would discriminate, or disadvantage sub-recipients based on their religious character.

xviii. Participants and Collaborating Organizations

If selected for award negotiations, the selected applicant must submit a list of personnel who are proposed to work on the project, both at the recipient and subrecipient level and a list of proposed collaborating organizations prior to award. Recipients will have an ongoing responsibility to notify DOE of changes to the personnel and collaborating organizations, and submit updated information during the life of the award.

xix. Current and Pending Support

If selected for award negotiations, within 30 days of the selection notice, the selectee must submit 1) current and pending support disclosures and resumes for any new PIs or senior/key personnel, and 2) updated disclosures if there have been any changes to the current and pending support submitted with the application. Throughout the life of the award, the Recipient has an ongoing responsibility to submit 1) current and pending support disclosure statements and resumes for any new principal investigator (PI) and senior/key personnel, and 2) updated disclosures if there are changes to the current and pending support previously submitted to DOE. Also See Section IV.D.xx.

xx. U.S. Manufacturing Commitments

A primary objective of DOE's multi-billion dollar research, development, and demonstration investments is to cultivate new research and development ecosystems, manufacturing capabilities, and supply chains for and by United States industry and labor. Therefore, in exchange for receiving taxpayer dollars to support an applicant's project, the applicant must agree to a U.S. Competitiveness provision requiring that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Recipient can show to the satisfaction of DOE that it is not commercially feasible. Award terms, including the specific U.S. Competitiveness Provision applicable to the various types of Recipients and projects, are available at https://www.energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards.

Please note that a subject invention is any invention conceived or first actually reduced to practice in performance of work under an award. An invention is any invention or discovery which is or may be patentable. The recipient includes any awardee, recipient, sub-awardee, or sub-recipient.

As noted in the U.S. Competitiveness Provision, if an entity cannot meet the requirements of the U.S. Competitiveness Provision, the entity may request a modification or waiver of the U.S. Competitiveness Provision. For example, the entity may propose modifying the language of the U.S. Competitiveness Provision in order to change the scope of the requirements or to provide more specifics on the application of the requirements for a particular technology. As another example, the entity may request that the U.S. Competitiveness Provision be waived in lieu of a net benefits statement or United States manufacturing plan. The statement or plan would contain specific and enforceable commitments that would be beneficial to the United States economy and competitiveness. Examples of such commitments could include manufacturing specific products in the United States, making a specific investment in a new or existing United States manufacturing facility, keeping certain activities based in the United States or supporting a certain number of jobs in the United States related to the technology. DOE may, in its sole discretion, determine that the proposed modification or waiver promotes commercialization and provides substantial United States economic benefits, and grant the request. If granted, DOE will modify the award terms and conditions for the requesting entity accordingly.

More information and guidance on the waiver and modification request process can be found in the DOE Financial Assistance Letter on this topic, available at https://www.energy.gov/management/pf-2022-09-fal-2022-01-implementation-doe-determination-exceptional-circumstances-under. Additional information on DOE's Commitment to Domestic Manufacturing for DOE-funded R&D is available at https://www.energy.gov/gc/us-manufacturing.

The U.S. Competitiveness Provision is implemented by DOE pursuant to a Determination of Exceptional Circumstances (DEC) under the Bayh-Dole Act and DOE Patent Waivers. See Section VIII.J. Title to Subject Inventions of this FOA for more information on the DEC and DOE Patent Waivers.

xxi. Interim Conflict of Interest Policy for Financial Assistance

The DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy)[19] is applicable to all non-Federal entities applying for, or that receive, DOE funding by means of a financial assistance award (e.g., a grant, cooperative agreement, or technology investment agreement) and, through the implementation of this policy by the entity, to each Investigator who is planning to participate in, or is participating in, the project funded wholly or in part under the DOE financial assistance award. The term "Investigator" means the PI and any other person, regardless of title or position, who is responsible for the purpose, design, conduct, or reporting of a project funded by DOE or proposed for funding by DOE. Recipients must flow down the requirements of the interim COI Policy to any subrecipient non-Federal entities. Further, for DOE funded projects, the recipient must include all financial conflicts of interest (FCOI) (i.e., managed and unmanaged/unmanageable) in their initial and ongoing FCOI reports.

It is understood that non-Federal entities and individuals receiving DOE financial assistance awards will need sufficient time to come into full compliance with DOE's interim COI Policy. To provide some flexibility, DOE allows for a staggered implementation. Specifically, prior to award, applicants selected for award negotiations must: ensure all Investigators complete their significant financial disclosures; review the disclosures; determine whether a FCOI exists; develop and implement a management plan for FCOIs; and provide DOE with an initial FCOI report that includes all FCOIs (i.e., managed and unmanaged/unmanageable). Recipients will have 180 days from the date of the award to come into full compliance with the other requirements set forth in DOE's interim COI Policy. Prior to award, the applicant must certify that it is, or will be within 180 days of the award, compliant with all requirements in the COI Policy.

xxii. Fraud, Waste, and Abuse

The mission of the DOE Office of Inspector General (OIG) is to strengthen the integrity, economy and efficiency of the Department's programs and operations including deterring and detecting fraud, waste, abuse and mismanagement. The OIG accomplishes this mission primarily through investigations, audits, and inspections of DOE activities to include grants, cooperative agreements, loans, and contracts.

[19] DOE's interim COI Policy can be found at PF 2022-17 FAL 2022-02 Department of Energy Interim Conflict of Interest Policy Requirements for Financial Assistance.

The OIG maintains a Hotline for reporting allegations of fraud, waste, abuse, or mismanagement. To report such allegations, please visit https://www.energy.gov/ig/ig-hotline.

Additionally, recipients of DOE awards must be cognizant of the requirements of 2 CFR 200.113 Mandatory disclosures, which states:

> The non-Federal entity or applicant for a Federal award must disclose, in a timely manner, in writing to the Federal awarding agency or pass-through entity all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Non-Federal entities that have received a Federal award including the term and condition outlined in appendix XII of 2 CFR Part 200 are required to report certain civil, criminal, or administrative proceedings to SAM. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.339. (See also 2 CFR part 180, 31 U.S.C. § 3321, and 41 U.S.C. § 2313.) [85 FR 49539, Aug. 13, 2020]

Applicants and subrecipients (if applicable) are encouraged to allocate sufficient costs in the project budget to cover the costs associated for personnel and data infrastructure needs to support performance management and program evaluation needs including but not limited to independent program and project audits to mitigate risks for fraud, waste, and abuse.

xxiii. Human Subjects Research

Research involving human subjects, biospecimens, or identifiable private information conducted with DOE funding is subject to the requirements of DOE Order 443.1C, Protection of Human Research Subjects, 45 CFR Part 46, Protection of Human Subjects (subpart A which is referred to as the "Common Rule"), and 10 CFR Part 745, Protection of Human Subjects.

Additional information on the DOE Human Subjects Research Program can be found at: HUMAN SUBJECTS Human Subjects Pr... | U.S. DOE Office of Science (SC) (osti.gov).

xxiv. Real Property and Equipment

Real property and equipment purchased with project funds (federal share and recipient cost share) are subject to the requirements at 2 CFR 200.310, 200.311, 200.313, and 200.316 (non-Federal entities, except for-profit entities) and 2 CFR 910.360 (for-profit entities). For projects selected for award under this FOA, the

recipient may (1) take disposition action on the real property and equipment; or (2) continue to use the real property and equipment after the conclusion of the award period of performance, with DOE Contracting Officer approval.

The recipient's written Request for Continued Use must identify the property and include: a summary of how the property will be used (must align with the authorized project purposes); a proposed use period, (e.g., perpetuity, until fully depreciated, or a calendar date where the recipient expects to submit disposition instructions); acknowledgement that the recipient shall not sell or encumber the property or permit any encumbrance without prior written DOE approval; current fair market value of the property; and an Estimated Useful Life or depreciation schedule for equipment.

When the property is no longer needed for authorized project purposes, the recipient must request disposition instructions from DOE. For-profit entity disposition requirements are set forth at 2 CFR 910.360. Property disposition requirements for other non-federal entities are set forth in 2 CFR 200.310-200.316. However, pursuant to the FY23 Consolidated Appropriations Act (Pub. L. No. 117-328), Division D, Title III, Section 309, the Secretary or a designee of the Secretary may, at their discretion, vest unconditional title or other property interests acquired under this project regardless of the fair market value of the property at the end of the award period.

VII. Questions/Agency Contacts

Upon the issuance of a FOA, DOE personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the FOA except through the established question and answer process as described below. Questions regarding this FOA must be submitted to: FOA3214@netl.doe.gov no later than five (5) business days prior to the application due date and time. Please note, feedback on individual concepts will not be provided through Q&A.

All questions and answers related to this FOA will be posted on EERE eXCHANGE at: https://eere-exchange.energy.gov. **You must first select this specific FOA Number to view the questions and answers specific to this FOA**. EERE will attempt to respond to a question within five (5) business days unless a similar question and answer has already been posted on the website.

Questions related to the registration process and use of the EERE eXCHANGE website should be submitted to EERE-ExchangeSupport@hq.doe.gov.

VIII. Other Information

A. FOA Modifications

Amendments to this FOA will be posted on EERE eXCHANGE and the Grants.gov system. However, you will only receive an email when an amendment or a FOA is posted on these sites if you register for email notifications for this FOA in Grants.gov. EERE recommends that you register as soon after the release of the FOA as possible to ensure you receive timely notice of any amendments or other FOAs.

B. Government Right to Reject or Negotiate

DOE reserves the right, without qualification, to reject any or all applications received in response to this FOA and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. Commitment of Public Funds

The DOE Contracting Officer is the only individual who can make awards or commit the government to the expenditure of public funds. A commitment by anyone other than the Contracting Officer, either express or implied, is invalid.

D. Treatment of Application Information

Applicants should not include trade secrets or business sensitive proprietary, or otherwise confidential information in their application unless such information is necessary to convey an understanding of the proposed project or to comply with a requirement in the FOA. Applicants are advised to not include any critically sensitive proprietary detail.

If an application includes trade secrets or business sensitive, proprietary, or otherwise confidential information, it is furnished to the Federal Government in confidence with the understanding that the information shall be used or disclosed only for evaluation of the application. Such information will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act. Without assuming any liability for inadvertent disclosure, DOE will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for merit review of the application or as otherwise authorized by law. This restriction does not limit the Government's right to use the information if it is obtained from another source.

If an applicant chooses to submit business sensitive, trade secrets, proprietary, or otherwise confidential information, the applicant must provide **two copies** of the submission (e.g., Concept Paper, Full Application). The first copy should be marked, "non-confidential" with the information believed to be confidential deleted. The second copy should be marked "confidential" and must clearly and conspicuously identify the business sensitive, trade secrets, proprietary, or otherwise confidential

information and must be marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The Government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose as authorized by law.

The cover sheet of the Full Application, and other applicant submission must be marked as follows and identify the specific pages business sensitive, trade secrets, proprietary, or otherwise confidential information:

Notice of Restriction on Disclosure and Use of Data:
Pages [list applicable pages] of this document may contain business sensitive, trade secrets, proprietary, or otherwise confidential information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source. [End of Notice]

In addition, (1) the header and footer of every page that contains business sensitive, trade secrets, proprietary, or otherwise confidential information must be marked as follows: "Contains Business Sensitive, Trade Secrets, Proprietary, or Otherwise Confidential Information Exempt from Public Disclosure," and (2) every line or paragraph containing such information must be clearly marked with double brackets or highlighting. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

E. Evaluation and Administration by Non-Federal Personnel

In conducting the merit review evaluation, the Go/No-Go Reviews and Peer Reviews, the government may seek the advice of qualified non-federal personnel as reviewers. The government may also use non-federal personnel to conduct routine, nondiscretionary administrative activities, including DOE contractors. The applicant, by submitting its application, consents to the use of non-federal reviewers/administrators. Non-federal reviewers must sign conflict of interest (COI) and non-disclosure acknowledgements (NDA) prior to reviewing an application. Non-federal personnel conducting administrative activities must sign an NDA.

F. Notice Regarding Eligible/Ineligible Activities

Eligible activities under this FOA include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but

not those which encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

G. Notice of Right to Conduct a Review of Financial Capability

DOE reserves the right to conduct an independent third party review of financial capability for applicants that are selected for negotiation of award (including personal credit information of principal(s) of a small business if there is insufficient information to determine financial capability of the organization).

H. Requirement for Full and Complete Disclosure

Applicants are required to make a full and complete disclosure of all information requested. Any failure to make a full and complete disclosure of the requested information may result in:

- The termination of award negotiations;
- The modification, suspension, and/or termination of a funding agreement;
- The initiation of debarment proceedings, debarment, and/or a declaration of ineligibility for receipt of federal contracts, subcontracts, and financial assistance and benefits; and
- Civil and/or criminal penalties.

I. Retention of Submissions

DOE expects to retain copies of all Full Applications and other submissions. No submissions will be returned. By applying to DOE for funding, applicants consent to DOE's retention of their submissions.

J. Title to Subject Inventions

Ownership of subject inventions is governed pursuant to the authorities listed below:

- Domestic Small Businesses, Educational Institutions, and Nonprofits: Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), domestic small businesses, educational institutions, and nonprofits may elect to retain title to their subject inventions;
- All other parties: The federal Non-Nuclear Energy Act of 1974, 42. U.S.C. § 5908, provides that the government obtains title to new inventions unless a waiver is granted (see below);
- Class Patent Waiver:
  DOE has issued a class waiver that applies to this FOA. Under this class waiver, domestic large businesses may elect title to their subject inventions similar to the right provided to the domestic small businesses, educational institutions, and nonprofits by law. To avail itself of the class waiver, a

domestic large business must agree that any products embodying or produced through the use of a subject invention first created or reduced to practice under this program will be substantially manufactured in the United States.

- Advance and Identified Waivers: For an applicant not covered by a Class Patent Waiver or the Bayh-Dole Act, the applicant may request a patent waiver that will cover subject inventions that may be invented under the award, in advance of or within 30 days after the effective date of the award. Even if an advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver for identified inventions, i.e., individual subject inventions that are disclosed to DOE within the timeframes set forth in the award's intellectual property data terms and conditions. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.
- DEC: On June 07, 2021, DOE approved a DETERMINATION OF EXCEPTIONAL CIRCUMSTANCES (DEC) UNDER THE BAYH-DOLE ACT TO FURTHER PROMOTE DOMESTIC MANUFACTURE OF DOE SCIENCE AND ENERGY TECHNOLOGIES. In accordance with this DEC, all awards, including sub-awards, under this FOA shall include the U.S. Competitiveness Provision in accordance with Section VI.B.xx. U.S. Manufacturing Commitments of this FOA. A copy of the DEC can be found at https://www.energy.gov/gc/determination-exceptional-circumstances-decs. Pursuant to 37 CFR 401.4, any nonprofit organization or small business firm as defined by 35 U.S.C. § 201 affected by any DEC has the right to appeal it by providing written notice to DOE within 30 working days from the time it receives a copy of the determination.
- DOE may issue and publish on the website above further DECs prior to the issuance of awards under this FOA. DOE may require additional submissions or requirements as authorized by any applicable DEC.

K. Government Rights in Subject Inventions

Where prime recipients and subrecipients retain title to subject inventions, the United States government retains certain rights.

Government Use License

The United States government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world. This license extends to contractors doing work on behalf of the government.

March-In Rights

The United States government retains march-in rights with respect to all subject inventions. Through "march-in rights," the government may require a prime recipient or subrecipient who has elected to retain title to a subject invention (or their assignees or exclusive licensees), to grant a license for use of the invention to a third party. In addition, the government may grant licenses for use of the subject invention when a prime recipient, subrecipient, or their assignees and exclusive licensees refuse to do so.

DOE may exercise its march-in rights only if it determines that such action is necessary under any of the four following conditions:

- The owner or licensee has not taken or is not expected to take effective steps to achieve practical application of the invention within a reasonable time;
- The owner or licensee has not taken action to alleviate health or safety needs in a reasonably satisfied manner;
- The owner has not met public use requirements specified by federal statutes in a reasonably satisfied manner; or
- The United States manufacturing requirement has not been met.

Any determination that march-in rights are warranted must follow a fact-finding process in which the recipient has certain rights to present evidence and witnesses, confront witnesses and appear with counsel and appeal any adverse decision. To date, DOE has never exercised its march-in rights to any subject inventions.

L. Rights in Technical Data

Data rights differ based on whether data is first produced under an award or instead was developed at private expense outside the award.

"Limited Rights Data": The United States government will not normally require delivery of confidential or trade secret-type technical data developed solely at private expense prior to issuance of an award, except as necessary to monitor technical progress and evaluate the potential of proposed technologies to reach specific technical and cost metrics.

Government Rights in Technical Data Produced Under Awards: The United States government retains unlimited rights in technical data produced under government financial assistance awards, including the right to distribute to the public. One exception to the foregoing is that invention disclosures may be protected from public disclosure for a reasonable time in order to allow for filing a patent application.

M. Copyright

The prime recipient and subrecipients may assert copyright in copyrightable works, such as software, first produced under the award without DOE approval. When copyright is asserted, the government retains a paid-up nonexclusive, irrevocable worldwide license to reproduce, prepare derivative works, distribute copies to the public, and to perform publicly and display publicly the copyrighted work. This license extends to contractors and others doing work on behalf of the government. In addition, for those awards requiring distribution of software as Open-Source Software (OSS), the additional information in Appendix E must be addressed in the application.

N. Export Control

The United States government regulates the transfer of information, commodities, technology, and software considered to be strategically important to the United States to protect national security, foreign policy, and economic interests without imposing undue regulatory burdens on legitimate international trade. There is a network of federal agencies and regulations that govern exports that are collectively referred to as "Export Controls". All recipients and subrecipients are responsible for ensuring compliance with all applicable United States Export Control Laws and regulations relating to any work performed under a resulting award.

The recipient must immediately report to DOE any export control violations related to the project funded under the DOE award, at the recipient or subrecipient level, and provide the corrective action(s) to prevent future violations.

O. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

As set forth in 2 CFR 200.216, recipients and subrecipients are prohibited from obligating or expending project funds (federal funds and recipient cost share) to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses *covered telecommunications equipment or services* as a substantial or essential component of any system, or as critical technology as part of any system. As described in section 889 of Public Law 115-232, *covered telecommunications equipment* is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

See Public Law 115-232, section 889, 2 CFR 200.216, and 2 CFR 200.471 for additional information.

P. Personally Identifiable Information (PII)

All information provided by the applicant must to the greatest extent possible exclude PII. The term "PII" refers to information which can be used to distinguish or trace an individual's identity, such as their name, social security number, biometric records, alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother's maiden name. (See OMB Memorandum M-07-16 dated May 22, 2007, found at: https://www.whitehouse.gov/wp-content/uploads/legacy_drupal_files/omb/memoranda/2007/m07-16.pdf

By way of example, applicants must screen resumes to ensure that they do not contain PII such as personal addresses, personal landline/cell phone numbers, and personal emails. **Under no circumstances should Social Security Numbers (SSNs) be included in the application**. Federal agencies are prohibited from the collecting, using, and displaying unnecessary SSNs. (See, the Federal Information Security Modernization Act of 2014 (Pub. L. No. 113-283, Dec 18, 2014; 44 U.S.C. § 3551).

Q. Annual Independent Audits

If a for-profit entity is a prime recipient and has expended $750,000 or more of DOE awards during the entity's fiscal year, an annual compliance audit performed by an independent auditor is required. For additional information, please refer to 2 CFR 910.501 and Subpart F.

If an educational institution, non-profit organization, or state/local government is a prime recipient or subrecipient and has expended $750,000 or more of federal awards during the non-federal entity's fiscal year, then a Single or Program-Specific Audit is required. For additional information, please refer to 2 CFR 200.501 and Subpart F.

Applicants and subrecipients (if applicable) should propose sufficient costs in the project budget to cover the costs associated with the audit. DOE will share in the cost of the audit at its applicable cost share ratio.

APPENDIX A – COST SHARE INFORMATION

Cost Sharing or Cost Matching

The terms "cost sharing" and "cost matching" are often used synonymously. Even the DOE Financial Assistance Regulations, 2 CFR 200.306, use both terms in the titles specific to regulations applicable to cost sharing. DOE almost always uses the term "cost sharing," as it conveys the concept that non-federal share is calculated as a percentage of the Total Project Cost. An exception is the State Energy Program Regulation, 10 CFR 420.12, State Matching Contribution. Here "cost matching" for the non-federal share is calculated as a percentage of the federal funds only, rather than the Total Project Cost.

How Cost Sharing Is Calculated

As stated above, cost sharing is calculated as a percentage of the Total Project Cost. FFRDC costs must be included in Total Project Costs. The following is an example of how to calculate cost sharing amounts for a project with $1,000,000 in federal funds with a minimum 20% non-federal cost sharing requirement:

- Formula: Federal share ($) divided by federal share (%) = Total Project Cost
  Example: $1,000,000 divided by 80% = $1,250,000
- Formula: Total Project Cost ($) minus federal share ($) = Non-federal share ($)
  Example: $1,250,000 minus $1,000,000 = $250,000
- Formula: Non-federal share ($) divided by Total Project Cost ($) = Non-federal share (%)
  Example: $250,000 divided by $1,250,000 = 20%

What Qualifies For Cost Sharing

While it is not possible to explain what specifically qualifies for cost sharing in one or even a couple of sentences, in general, if a cost is allowable under the cost principles applicable to the organization incurring the cost and is eligible for reimbursement under a DOE grant or cooperative agreement, then it is allowable as cost share. Conversely, if the cost is not allowable under the cost principles and not eligible for reimbursement, then it is not allowable as cost share. In addition, costs may not be counted as cost share if they are paid by the federal government under another award unless authorized by federal statute to be used for cost sharing.

The rules associated with what is allowable as cost share are specific to the type of organization that is receiving funds under the grant or cooperative agreement, though are generally the same for all types of entities. The specific rules applicable to:

- FAR Part 31 for For-Profit entities, (48 CFR Part 31); and
- 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

In addition to the regulations referenced above, other factors may also come into play such as timing of donations and length of the project period. For example, the value of ten years of donated maintenance on a project that has a project period of five years would not be fully allowable as cost share. Only the value for the five years of donated maintenance that corresponds to the project period is allowable and may be counted as cost share.

Additionally, DOE generally does not allow pre-award costs for either cost share or reimbursement when these costs precede the signing of the appropriation bill that funds the award. In the case of a competitive award, DOE generally does not allow pre-award costs prior to the signing of the Selection Statement by the DOE Selection Official.

General Cost Sharing Rules on a DOE Award

1. Cash Cost Share – encompasses all contributions to the project made by the recipient or subrecipient(s), for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project.
2. In-Kind Cost Share – encompasses all contributions to the project made by the recipient or subrecipient(s) that do not involve a payment or reimbursement and represent donated items or services. In-Kind cost share items include volunteer personnel hours, donated existing equipment, donated existing supplies. The cash value and calculations thereof for all In-Kind cost share items must be justified and explained in the Cost Share section of the project Budget Justification. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out the In-Kind cost share section of the Budget Justification.
3. Funds from other federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC subrecipients. Non-federal sources include any source not originally derived from federal funds. Cost sharing commitment letters from subrecipients must be provided with the original application.
4. Fee or profit, including foregone fee or profit, are not allowable as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

DOE Financial Assistance Rules 2 CFR Part 200 as amended by 2 CFR Part 910

As stated above, the rules associated with what is allowable cost share are generally the same for all types of organizations. Following are the rules found to be common, but again, the specifics are contained in the regulations and cost principles specific to the type of entity:

(A) Acceptable contributions. All contributions, including cash contributions and third party in-kind contributions, must be accepted as part of the prime recipient's cost sharing if such contributions meet all of the following criteria:

(1) They are verifiable from the recipient's records.

(2) They are not included as contributions for any other federally-assisted project or program.

(3) They are necessary and reasonable for the proper and efficient accomplishment of project or program objectives.

(4) They are allowable under the cost principles applicable to the type of entity incurring the cost as follows:

a. For-profit organizations. Allowability of costs incurred by for-profit organizations and those nonprofit organizations listed in Attachment C to OMB Circular A–122 is determined in accordance with the for-profit cost principles in 48 CFR Part 31 in the FAR, except that patent prosecution costs are not allowable unless specifically authorized in the award document. (v) Commercial Organizations. FAR Subpart 31.2—Contracts with Commercial Organizations; and

b. Other types of organizations. For all other non-federal entities, allowability of costs is determined in accordance with 2 CFR Part 200 Subpart E.

(5) They are not paid by the federal government under another award unless authorized by federal statute to be used for cost sharing or matching.

(6) They are provided for in the approved budget.

(B) Valuing and documenting contributions

(1) Valuing recipient's property or services of recipient's employees. Values are established in accordance with the applicable cost principles, which mean that amounts chargeable to the project are determined on the basis of costs incurred. For real property or equipment used on the project, the cost principles authorize depreciation or use charges. The full value of the item may be applied when the item will be consumed in the performance of the award or fully depreciated by the end of the award. In cases where the full value of a donated capital asset is to be applied as cost sharing or matching, that full value must be the lesser or the following:

a. The certified value of the remaining life of the property recorded in the recipient's accounting records at the time of donation; or

b. The current fair market value. If there is sufficient justification, the Contracting Officer may approve the use of the current fair market value of the donated property, even if it exceeds the certified value at the time of donation to the project. The Contracting Officer may accept the use of any reasonable basis for determining the fair market value of the property.

(2) Valuing services of others' employees. If an employer other than the recipient furnishes the services of an employee, those services are valued at the employee's regular rate of pay, provided these services are for the same skill level for which the employee is normally paid.

(3) Valuing volunteer services. Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as cost sharing or matching if the service is an integral and necessary part of an approved project or program. Rates for volunteer services must be consistent with those paid for similar work in the recipient's organization. In those markets in which the required skills are not found in the recipient organization, rates must be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

(4) Valuing property donated by third parties.

- **a.** Donated supplies may include such items as office supplies or laboratory supplies. Value assessed to donated supplies included in the cost sharing or matching share must be reasonable and must not exceed the fair market value of the property at the time of the donation.
- **b.** Normally only depreciation or use charges for equipment and buildings may be applied. However, the fair rental charges for land and the full value of equipment or other capital assets may be allowed, when they will be consumed in the performance of the award or fully depreciated by the end of the award, provided that the Contracting Officer has approved the charges. When use charges are applied, values must be determined in accordance with the usual accounting policies of the recipient, with the following qualifications:
  - **i.** The value of donated space must not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.
  - **ii.** The value of loaned equipment must not exceed its fair rental value.

(5) Documentation. The following requirements pertain to the recipient's supporting records for in-kind contributions from third parties:

- **a.** Volunteer services must be documented and, to the extent feasible, supported by the same methods used by the recipient for its own employees.
- **b.** The basis for determining the valuation for personal services and property must be documented.

APPENDIX B – SAMPLE COST SHARE CALCULATION FOR BLENDED COST SHARE PERCENTAGE

The following example shows the math for calculating required cost share for a project with $2,000,000 in federal funds with four tasks requiring different non-federal cost share percentages:

Task	Proposed Federal Share	Federal Share %	Recipient Share %
Task 1 (R&D)	$1,000,000	80%	20%
Task 2 (R&D)	$500,000	80%	20%
Task 3 (Demonstration)	$400,000	50%	50%
Task 4 (Outreach)	$100,000	100%	0%

Federal share ($) divided by federal share (%) = Task Cost

Each task must be calculated individually as follows:

Task 1
$1,000,000 divided by 80% = $1,250,000 (Task 1 Cost)
Task 1 Cost minus federal share = non-federal share
$1,250,000 - $1,000,000 = $250,000 (non-federal share)

Task 2
$500,000 divided 80% = $625,000 (Task 2 Cost)
Task 2 Cost minus federal share = non-federal share
$625,000 - $500,000 = $125,000 (non-federal share)

Task 3
$400,000 / 50% = $800,000 (Task 3 Cost)
Task 3 Cost minus federal share = non-federal share
$800,000 - $400,000 = $400,000 (non-federal share)

Task 4
Federal share = $100,000
Non-federal cost share is not mandated for outreach = $0 (non-federal share)

The calculation may then be completed as follows:

Tasks	$ Federal Share	% Federal Share	$ Non-Federal Share	% Non-Federal Share	Total Project Cost
Task 1	$1,000,000	80%	$250,000	20%	$1,250,000
Task 2	$500,000	80%	$125,000	20%	$625,000
Task 3	$400,000	50%	$400,000	50%	$800,000
Task 4	$100,000	100%	$0	0%	$100,000
Totals	$2,000,000		$775,000		$2,775,000

Blended Cost Share %
Non-federal share ($775,000) divided by Total Project Cost ($2,775,000) = 27.9% (non-federal)
Federal share ($2,000,000) divided by Total Project Cost ($2,775,000) = 72.1% (federal

APPENDIX C – WAIVER REQUESTS FOR: 1. FOREIGN ENTITY PARTICIPATION; AND 2. FOREIGN WORK

1. Waiver for Foreign Entity Participation

Many of the technology areas DOE funds fall in the category of critical and emerging technologies (CETs). CETs are a subset of advanced technologies that are potentially significant to United States national and economic security.[20] For projects selected under this FOA, all recipients and subrecipients must be organized, chartered or incorporated (or otherwise formed) under the laws of a state or territory of the United States; have majority domestic ownership and control; and have a physical location for business operations in the United States. To request a waiver of this requirement, an applicant must submit an explicit waiver request in the Full Application.

Waiver Criteria

Foreign entities seeking to participate in a project funded under this FOA must demonstrate to the satisfaction of DOE that:

a. Its participation is in the best interest of the United States industry and United States economic development;
b. The project team has appropriate measures in place to control sensitive information and protect against unauthorized transfer of scientific and technical information;
c. Adequate protocols exist between the United States subsidiary and its foreign parent organization to comply with export control laws and any obligations to protect proprietary information from the foreign parent organization;
d. The work is conducted within the United States and the entity acknowledges and demonstrates that it has the intent and ability to comply with the U.S. Competitiveness Provision (see Section VI.B.xx.); and
e. The foreign entity will satisfy other conditions that may be deemed necessary by DOE to protect United States government interests.

Content for Waiver Request

A Foreign Entity waiver request must include the following:

a. Information about the entity: name, point of contact, and proposed type of involvement in the project;
b. Country of incorporation, the extent of the ownership/level control by foreign entities, whether the entity is state owned or controlled, a summary of the ownership breakdown of the foreign entity and the percentage of ownership/control by foreign entities, foreign shareholders, foreign state or foreign individuals;

[20] See Critical and Emerging Technologies List Update (whitehouse.gov).

c. The rationale for proposing a foreign entity participate (must address criteria above);
d. A description of the project's anticipated contributions to the United States economy;
    - How the project will benefit the United States, including manufacturing, contributions to employment in the United States and growth in new markets and jobs in the United States;
    - How the project will promote manufacturing of products and/or services in the United States;
e. A description of how the foreign entity's participation is essential to the project;
f. A description of the likelihood of Intellectual Property (IP) being created from the work and the treatment of any such IP; and
g. Countries where the work will be performed (Note: if any work is proposed to be conducted outside the United States, the applicant must also complete a separate request foreign work waiver).

DOE may also require:

- A risk assessment with respect to IP and data protection protocols that includes the export control risk based on the data protection protocols, the technology being developed and the foreign entity and country. These submissions could be prepared by the project lead (if not the prime recipient), but the prime recipient must make a representation to DOE as to whether it believes the data protection protocols are adequate and make a representation of the risk assessment – high, medium or low risk of data leakage to a foreign entity.
- Additional language be added to any agreement or subagreement to protect IP, mitigate risk or other related purposes.

DOE may require additional information before considering the waiver request.

DOE's decision concerning a waiver request is not appealable.

2. Waiver for Performance of Work in the United States (Foreign Work Waiver Request)

As set forth in Section IV.J.iii., all work under funding under this FOA must be performed in the United States. To seek a waiver of the Performance of Work in the United States requirement, the applicant must submit an explicit waiver request in the Full Application. A separate waiver request must be submitted for each entity proposing performance of work outside of the United States.

Overall, a waiver request must demonstrate to the satisfaction of DOE that it would further the purposes of this FOA and is otherwise in the economic interests of the United States to

perform work outside of the United States. A request for a foreign work waiver must include the following:

1. The rationale for performing the work outside the United States ("foreign work");
2. A description of the work proposed to be performed outside the United States;
3. An explanation as to how the foreign work is essential to the project;
4. A description of the anticipated benefits to be realized by the proposed foreign work and the anticipated contributions to the United States economy;
5. The associated benefits to be realized and the contribution to the project from the foreign work;
6. How the foreign work will benefit the United States, including manufacturing, contributions to employment in the United States and growth in new markets and jobs in the United States;
7. How the foreign work will promote manufacturing of products and/or services in the United States;
8. A description of the likelihood of Intellectual Property (IP) being created from the foreign work and the treatment of any such IP;
9. The total estimated cost (DOE and recipient cost share) of the proposed foreign work;
10. The countries in which the foreign work is proposed to be performed; and
11. The name of the entity that would perform the foreign work. Information about the entity(ies) involved in the work proposed to be conducted outside the United States. (i.e., entity seek a waiver and the entity(ies) that will conduct the work).

DOE may require additional information before considering the waiver request.

DOE's decision concerning a waiver request is not appealable.

APPENDIX D – REQUIRED USE OF AMERICAN IRON, STEEL, MANUFACTURED PRODUCTS, AND CONSTRUCTION MATERIALS
BUY AMERICA REQUIREMENT FOR INFRASTRUCTURE PROJECTS

A. Definitions

For purposes of the Buy America Requirement, based both on the statute and 2 CFR, part 184, the following definitions apply:

Construction materials means articles, materials, or supplies that consist of only one of the items listed in paragraph (1) of this definition, except as provided in paragraph (2) of this definition. To the extent one of the items listed in paragraph (1) contains as inputs other items listed in paragraph (1), it is nonetheless a construction material.

(1) The listed items are:

(i) Non-ferrous metals;

(ii) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);

(iii) Glass (including optic glass);

(iv) Fiber optic cable (including drop cable);

(v) Optical fiber;

(vi) Lumber;

(vii) Engineered wood; and

(viii) Drywall.

(2) Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material.

Infrastructure project means any activity related to the construction, alteration, maintenance, or repair of infrastructure in the United States regardless of whether infrastructure is the primary purpose of the project. *See also* paragraphs (c) and (d) of § 184.4.
Moreover, according to 2 CFR, part 184.4:

(c) *Infrastructure in general.* Infrastructure encompasses public infrastructure projects in the United States, which includes, at a minimum, the structures, facilities, and equipment for roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property; and structures, facilities, and equipment that generate, transport, and distribute energy including electric vehicle (EV) charging.

(d) *Interpretation of infrastructure.* The Federal awarding agency should interpret the term "infrastructure" broadly and consider the description provided in paragraph (c) of this section as illustrative and not exhaustive. When determining if a particular project of a type not listed in the description in paragraph (c) constitutes "infrastructure," the Federal awarding agency should consider whether the project will serve a public function, including whether the project is publicly owned and operated, privately operated on behalf of the public, or is a place of public accommodation, as opposed to a project that is privately owned and not open to the public.

The Agency, not the applicant, will have the final say as to whether a given project includes infrastructure, as defined herein. Accordingly, in cases where the "public" nature of the infrastructure is unclear, but the other relevant criteria are met, DOE strongly recommends that applicants complete their full application with the assumption that Buy America requirements will apply to the proposed project.

B. Buy America Requirement for Infrastructure Projects ("Buy America" Requirements)

In accordance with section 70914 of the BIL, none of the project funds (includes federal share and Recipient cost share) may be used for a project for infrastructure unless:

(1) all iron and steel used in the project are produced in the United States--This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;

(2) all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and

(3) all construction materials[16] are produced in the United States—this means that all manufacturing processes for the construction material occurred in the United States.

[16] Excludes cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.

The Buy America Requirement only apply to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does the Buy America Requirement apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

For additional information related to the application and implementation of these Buy America requirements, please see OMB Memorandum M-24-02 dated October 25, 2023:M-24-02 Buy America (whitehouse.gov)

Note that for all applicants – both non-Federal entities and for-profit entities – DOE is including a Program Policy Factor that the Selection Official may consider in determining which Full Applications to select for award negotiations that considers whether the applicant has made a commitment to procure U.S. iron, steel, manufactured products, and construction materials in its project.

C. Waivers

The DOE financial assistance agreement will require each recipient: (1) to fulfill the commitments made in its application regarding the procurement of U.S.-produced products and (2) to fulfill the commitments made in its application regarding the procurement of other key component metals and manufactured products domestically that are deemed available in sufficient and reasonable available quantities or of a satisfactory quality at the time of award negotiation.

In limited circumstances, DOE may waive the application of the Buy America Requirement where DOE determines that:

(1) applying the Buy America requirements would be inconsistent with the public interest;
(2) the types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or
(3) the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent.

If an applicant or recipient is seeking a waiver of the Buy America requirements, it may submit a waiver request after it has been notified of its selection for award negotiations. A waiver request must include:

- A detailed justification for the use of "non-domestic" iron, steel, manufactured products, or construction materials to include an explanation as to how the non-domestic item(s) is essential to the project;
- A certification that the applicant or recipient made a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, and nonproprietary communications with potential suppliers;
- Applicant /Recipient name and Unique Entity Identifier (UEI)
- Total estimated project cost, DOE and cost-share amounts
- Project description and location (to the extent known)
- List and description of iron or steel item(s), manufactured goods, and construction material(s) the applicant or recipient seeks to waive from Domestic Content Procurement Preference requirement, including name, cost, country(ies) of origin (if known), and relevant Product Service Codes (PSC) and North American Industry Classification System (NAICS) code for each
- Waiver justification including due diligence performed (e.g., market research, industry outreach) by the applicant or recipient
- Anticipated impact if no waiver is issued.

DOE may require additional information before considering the waiver request.

Waiver requests are subject to public comment periods of no less than 15 days and must be reviewed by the Made in America Office. There may be instances where an award qualifies, in whole or in part, for an existing waiver described at DOE Buy America Requirement Waiver Requests

DOE's decision concerning a waiver request is not appealable.

APPENDIX E – OPEN-SOURCE SOFTWARE DISTRIBUTION PLAN

Open-Source Software Distribution Plan.

Applicants that are applying to one or more Topic Areas for which open-source software distribution is required must submit a plan describing how software produced under this FOA will be distributed. For a DOE National Laboratory or a FFRDC, the data rights clause, including rights and requirements pertaining to computer software, in its M&O Contract shall apply and shall take precedence over any requirement set forth in this Appendix. The plan must include the following elements:

1. A complete description of any existing software that will be modified or incorporated into software produced under this FOA, including a description of the license rights. The license rights must allow the modified or incorporated software to be distributed as open-source.
2. A discussion of the open-source license that the applicant plans to use for the software it plans to produce under the FOA, and how that choice furthers the goals of this FOA. The discussion must also address how the license conforms to the conditions listed below.
3. A method for depositing the software in a source code repository.
4. A method for sharing and disseminating the software and other information to team members or others when multiple parties will contribute to the development of the software or the FOA requires that the software or other information be shared or disseminated to others.

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The program must include source code, and must allow distribution in source code as well as compiled form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost preferably, i.e., downloading via the Internet without charge. The source code must be the preferred form in which a programmer would modify the program.

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The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software.

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APPENDIX F – LIST OF ACRONYMS

AHJ	Authority Having Jurisdiction
API	Application Programming Interface
BABA	Build America Buy America Act
BIL	Bipartisan Infrastructure Law
CFR 680	Code of Federal Regulations - Title 23/Chapter I/Subchapter G/Part 680
COI	Conflict of Interest
CRADA	Cooperative Research and Development Agreement
DBA	Davis-Bacon Act
DC	Direct Current
DEC	Determination of Exceptional Circumstances
DEIA	Diversity, Equity, Inclusion, and Accessibility
DMP	Data Management Plan
DOE	U.S. Department of Energy
DOI	Digital Object Identifier
DOL	U.S. Department of Labor
DOT	U.S. Department of Transportation
EERE	U.S. DOE - Office of Energy Efficiency and Renewable Energy
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
FAR	Federal Acquisition Regulation
FCOI	Financial Conflicts of Interest
FFATA	Federal Funding and Transparency Act of 2006
FFRDC	Federally Funded Research and Development Center
FOA	Funding Opportunity Announcement
FY	Fiscal Year
HBCU	Historically Black Colleges and University
Joint Office	The Joint Office of Energy and Transportation
MFA	Multi-Factor Authentication
MSI	Minority-Serving institution
NEPA	National Environmental Policy Act
NETL	U.S. DOE – National Energy Technology Laboratory
NEVI	National Electric Vehicle Infrastructure
NNSA	National Nuclear Security Administration
NREL	U.S. DOE - National Renewable Energy Lab
NSF	National Science Foundation
OCPP	Open Charge Point Protocol
OFCCP	Office of Federal Contractor Compliance Program
OIG	Office of Inspector General
OMB	Office of Management and Budget

OSS	Open-Source Software
OSTI	Office of Scientific and Technical Information
OTA	Over-The-Air
PI	Principal Investigator
PII	Personal Identifiable Information
PLA	Project Labor Agreement
RD&D	Research, Development, and Demonstration
SAM	System for Award Management
SciENcv	Science Experts Network Curriculum Vita
SDO	Standards Development Organizations
SMART	Specific, Measurable, Achievable, Relevant, and Timely
SOPO	Statement of Project Objectives
TAA	Technical Assistance Agreement
TNC	Transportation Network Company
UCC	Uniform Commercial Code
UEI	Unique Entity Identifier
VGI	Vehicle-Grid-Integration
WBS	Work Breakdown Structure
WP	Work Proposal
ZEV	Zero Emission Vehicle