



**U.S. Department of Energy  
Office of Clean Energy Demonstrations**

**Bipartisan Infrastructure Law  
Energy Improvement in Rural or Remote Areas**

**Funding Opportunity Announcement Number: DE-FOA-0002970**

**Type: Initial**

**Assistance Listing Number: 81.255**

**FOA Issue Date: March 1, 2023**

This Funding Opportunity Announcement (FOA) may be re-opened for subsequent funding cycles, potentially with adjusted funding amounts, topic areas or other requirements.

**Cycle 2023-1:**

|                                                |                       |
|------------------------------------------------|-----------------------|
| <b>Submission Deadline for Concept Papers:</b> | 04/14/2023, 5 p.m. ET |
| <b>Informational Webinar:</b>                  | 03/29/2023, 1 p.m. ET |
| <b>Submission Deadline for Applications:</b>   | 06/28/2023, 5 p.m. ET |

Applicants **must** submit a Concept Paper by 5 p.m. ET on the due date listed above to be eligible to submit an Application.



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## 1.0 Overview of Key Information

**Agency:** U.S. Department of Energy (DOE)

**Program Overview:** The Energy Improvements in Rural or Remote Areas (ERA) program will provide financial investment, technical assistance, and other resources to advance clean energy demonstrations and energy solutions in rural and remote areas that can be replicated and scaled. This program was created by President Biden’s Bipartisan Infrastructure Law. The goals of the program are to:

1. **Deliver measurable benefits to energy customers in rural or remote areas** by funding replicable energy projects that lower energy costs, improve energy access and resilience, and/or reduce environmental harm.
2. **Demonstrate new rural or remote energy system models** using climate-resilient technologies, business structures that promote economic resilience, new financing mechanisms, and/or new community engagement best practices.
3. **Build clean energy knowledge, capacity, and self-reliance in rural America.**

**Deadlines:**

- **April 14, 2023, at 5 p.m. ET:** Concept paper due
- **June 28, 2023, at 5 p.m. ET:** Application due

**Funding Overview:** \$1 billion over 5 years. Up to \$300 million in funding available in this funding opportunity.

**Eligible Applicants:** Applications must identify at least one area in the United States (including U.S. territories) with a population of not more than 10,000 inhabitants that benefits from the proposal. The proposed applicant and subrecipient(s) must be domestic entities.

The following types of entities are eligible to participate as prime recipients or subrecipients:

1. Institutions of higher education
2. Non-profit entities
3. For-profit entities
4. Tribal Nations
5. State and local governmental entities
6. Incorporated Consortia
7. Unincorporated Consortia

## Key Benefits and Metrics:

- **Improved grid performance**, measured through positive changes in metrics such as a reduction in total prolonged outages, reduction in threshold major event days, improvement in system average interruption duration index (SAIDI) and/or system average interruption frequency index (SAIFI), or similar metrics demonstrating improved reliability because of the project.
- **Improved resilience**, measured through positive changes in metrics such as restoration time, total number of event days, and/or average number of customers impacted by events because of the project.
- **Reduced energy burden and poverty**, measured through positive changes in metrics such as improvement in energy burden from a baseline established prior to project implementation, reduction in the number or frequency of customer arrearages, and/or the percent of customers receiving shut-off notices because of the project.
- **Increased economic resilience**, measured in ongoing permanent jobs created in the community, wages and benefits, and build-out of the supply chain or other induced economic effects.
- **Improved environmental performance from energy generation to support public health**, measured through positive changes in metrics such as air quality index (AQI), total dissolved solids (TDS), streamflow, and aquifer hydraulic head because of the project.
- **Reduce greenhouse gas impact of energy system**, measured by change in carbon dioxide-equivalent emissions because of the project, relative to an established baseline.
- **Energy Access**, reducing the number of homes currently without access to electricity.

## Topics and example projects:

- **Topic Area 1: Community-Scale Demonstrations**
  - Overview: Proposals to implement clean energy projects with a Federal cost share of **at least \$5 million** and **at most \$10 million**, using one or more clean energy technologies that advance resilience and provide other benefits to one or more rural or remote communities.
  - *Example projects*: Microgrid designs and service models that enable cost-competitive deployment to a broad set of rural or remote communities; small hydropower systems providing community benefits; hybrid configurations of distributed energy resources that are operable during extreme weather events; and demonstrating operation of existing technologies to new climates.

- **Topic Area 2: Large-Scale Demonstrations**

- Overview: Proposals to implement clean energy projects with a Federal cost share of **at least \$10 million** and **at most \$100 million**. Large-scale demonstrations should benefit multiple communities, either through a single installation that benefits multiple rural or remote communities, or through a series of installations with similar or complementary characteristics across multiple communities.
- **Area of Interest – Aggregation.** Similar projects at multiple locations in a manner that leads to a demonstratable benefit relative to conducting that project at only one location.
  - *Example project:* Solar and/or wind farms, with or without energy storage, in multiple locations that share a common administrative and support staff.
- **Area of Interest – Single-Site Projects.** Projects that involve a single installation site that can enable replication of a solution and/or benefit multiple rural or remote communities.
  - *Example projects:*
    - A utility-scale solar, wind farm and/or hydrogen or battery storage facility.
    - A bioreactor that uses locally available biomass to replace fossil fuel generation.
    - A renewables project that delivers significant additional benefits to a local community.
    - A transmission investment that reduces reliance on fossil fuels.
    - Clean energy generation in an area having trouble attracting investment due to geographic isolation.

**Cost Share:**

- **20% cost share** in cases where the prime recipient is a domestic institution of higher education; domestic nonprofit entity; or U.S. state, local, or tribal government entity (including Alaska Native Corporations and Alaska Native Village Corporations).
- **50% cost share** for all other projects.

### Anticipated Award Size and Funding Amount:

| Topic Area No. | Topic Area Title               | Anticipated Number of Awards | Anticipated Cost Share per Award |                              | Total Anticipated Fed Share <sup>1</sup> |
|----------------|--------------------------------|------------------------------|----------------------------------|------------------------------|------------------------------------------|
|                |                                |                              | Award Size (Fed Share)           | Applicant Share <sup>2</sup> |                                          |
| 1              | Community-Scale Demonstrations | 4-8                          | \$5 million (M)–\$10 M           | \$1 M–\$10 M                 | \$40M                                    |
| 2              | Large-Scale Demonstrations     | 3-20                         | \$10 M–\$100 M                   | \$2 M–\$100 M                | \$260M                                   |
| Notes:         |                                |                              |                                  | <b>Total<sup>1</sup></b>     | <b>\$300M</b>                            |

1. Total anticipated under this FOA.
2. Twenty percent (20%) or fifty percent (50%) applicant cost share depending on applicant's cost share eligibility, see [Section 4.2 Cost Sharing](#).

## 2.0 Funding Opportunity Description

### 2.1 Background and Goals

The Infrastructure Investment and Jobs Act, commonly referred to as the Bipartisan Infrastructure Law (BIL) authorizes DOE to invest \$1 billion in energy improvements in rural or remote areas. DOE's ERA program will provide financial investment, technical assistance, and other resources to advance clean energy demonstrations and energy solutions that are replicable and scalable. ERA aims to fund clean energy projects with three specific goals:

1. **Deliver measurable benefits to energy customers in rural or remote areas** by funding replicable energy projects that lower energy costs, improve energy access and resilience, and/or reduce environmental harm.
2. **Demonstrate new rural or remote energy system models** using climate-resilient technologies, business structures that promote economic resilience, new financing mechanisms, and/or new community engagement best practices.
3. **Build clean energy knowledge, capacity, and self-reliance in rural America.**

The ERA program is managed by the Office of Clean Energy Demonstrations (OCED), whose mission is to deliver clean energy technology demonstration projects at scale to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.

OCED seeks to provide equal opportunity to qualified applicants from rural and remote areas of the United States, which for the purposes of this statutory section means areas of less than 10,000 inhabitants. OCED recognizes that potential applicants will come to this program with widely varying energy and resilience needs.

To address this reality that one size does not fit all, OCED has organized this \$300 million Funding Opportunity Announcement (FOA) into nine geographic regions, each with its own set of broad energy challenges that provide applicants the opportunity to propose creative solutions at a variety of sizes and scales to address those challenges. Depending on response, OCED may open up additional Funding Opportunity Announcements in the future. In addition, OCED is offering a related prize competition to assist development of clean energy system proposals. The [Energizing Rural Communities Prize](#) competition opens on March 1, 2023, challenging individuals and organizations to develop partnership plans and innovative financing strategies.

Finally, in recognition that many creative energy solutions happen at a smaller scale and do not require a complex application process, **OCED is planning to announce a simplified approach, distinct from this FOA, for those applicants with qualifying projects seeking less than \$5 million in federal funding.** This announcement will take place in the next 60 days.

Technical assistance is available for this FOA pending sub-program and FOA proposals, to enable capacity building and continuous strategic engagement to answer questions which might arise along the way (see [Section 2.4](#)).

The ERA program intends to improve the cost, reliability, environmental impact, and climate and economic resilience of energy systems in rural or remote communities by funding clean energy projects with commercially viable or near-commercially viable technologies. Projects funded through this FOA will de-risk investment in the energy infrastructure of rural or remote communities. Funded projects will provide insights for future investments, such as deployment of similar technologies, use of similar business models, or adoption of similar community engagement best practices and clarify pathways to future good paying union jobs (see [Section 2.1.3](#)).

### 2.1.1 Ensuring Direct Benefit to Rural or Remote Areas

This FOA is designed to enable citizens in rural or remote communities, to realize material benefits as the result of investment in their energy infrastructure. These benefits can include, but are not limited to: lower energy costs, improved energy access, economic resilience, and environmental protection from adverse impacts of historic energy generation. Selected projects will implement cost-effective clean energy technologies that promote the overall resilience of the local energy system against climate impacts, and support more diversified rural economies better able to weather economic shocks.

To ensure that these benefits are spread equitably across affected communities applicants are required to submit a Community Benefits Plan (CBP). This plan outlines how the project will support community and labor engagement, invest in the American workforce, contribute to the President's goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities (the Justice40 Initiative), and promote diversity, equity, inclusion, and accessibility (DEIA).

DOE recognizes that applicants have different levels of capacity and experience related to this kind of community-focused planning and will support FOA awardees to develop and implement robust, locally tailored, and measurable plans (see [Section 5.6.2.3](#) for more details).

Consistent with the objectives of this program, OCED expects projects to utilize local staff and local resources to the maximum extent possible. If external resources are necessary, projects funded under this FOA and any related activities will seek to encourage meaningful engagement and participation of local business organizations, labor unions, underserved communities and underrepresented groups, federally recognized tribes and tribal and indigenous communities and native entities.

## **2.1.2 Promoting Community Energy Solutions for Regional Climate Challenges**

Selected projects will promote community energy solutions to improve the cost, reliability, environmental impacts, and climate and economic resilience of energy generation in rural or remote communities. Applicants are required to identify at least one applicable region for the project (reference [Figure 1](#) and [Table 2](#) below), along with any regional climate risk(s) the project is proposing to help mitigate. OCED seeks applications that leverage a region's natural resources, local industry, stakeholders, climate and/or economic risks, or other factors, as such factors may be critical towards the ultimate replicability of the project in other rural or remote areas within the region (See [Section 2.1.3](#) for further details on replicability). [Section 2.2.3](#) outlines, for illustrative purposes only, some potential examples of regional climate-driven energy system risks and potential solutions that can leverage regional resources. OCED encourages applicants to identify regional challenges and opportunities as they see fit based on their own assessment of their community's energy challenges, needs and opportunities.

## **2.1.3 Ensuring Project Replicability**

Replicability is key to market adoption of technologies to benefit rural or remote areas beyond those participating in the ERA program. The program seeks to build confidence of decision makers to invest in clean energy in rural and remote areas, including financiers, utilities, and tribal, state, and local governments, who can enable replication.

Proposed projects can demonstrate established, commercial technologies for the first time in a new setting or place, or at a larger scale; an innovative approach to improve siting and permitting timelines; enabling energy access for homes/communities that do not have access to electricity; self-reliance, or reduction in environmental harm from generation; economic development and local job creation leading to more overall economic resilience, and/or an innovative technology application in a rural or remote area.

## 2.2 ERA Topic Areas and Regional Areas of Interest

### 2.2.1 Guidance Across All Topic Areas

While the ERA program emphasizes the importance of regional considerations, FOA applicants should begin their project proposals by choosing one of two distinct Topic Areas as described below. DOE may issue awards in one, both or none of the following topic areas:

Table 1. Topic Areas Overview

| Topic Area No. | Topic Area Title               | Anticipated Number of Awards | Anticipated Cost Share per Award |                              | Total Anticipated Fed Share <sup>1</sup> |
|----------------|--------------------------------|------------------------------|----------------------------------|------------------------------|------------------------------------------|
|                |                                |                              | Award Size (Fed Share)           | Applicant Share <sup>2</sup> |                                          |
| 1              | Community-Scale Demonstrations | 4-8                          | \$5M - 10M                       | \$1M - \$10M                 | \$40M                                    |
| 2              | Large-Scale Demonstrations     | 3-20                         | \$10M - \$100M                   | \$2M - \$100M                | \$260M                                   |
|                |                                |                              |                                  | <b>Total<sup>1</sup></b>     | <b>\$300M</b>                            |

Notes:

1. Total anticipated under this FOA.
2. Twenty percent (20%) or fifty percent (50%) applicant cost share depending on applicant's cost share eligibility, see [Section 4.2 Cost Sharing](#).

Applicants may submit more than one application per Topic Area if the proposed projects are substantially different. Projects ideally should be sited within the rural or remote community or communities they are designed to benefit. Projects proposed to be built outside of a rural or remote area may be considered for funding but must clearly define the rural or remote area(s) of less than 10,000 inhabitants receiving the benefits, the types of benefits, and the method through which these benefits will be quantitatively measured and accounted for in the CBP. All projects are required to be built within the United States.

Applicants should assemble teams that show a clear capacity to execute on the proposed projects. Applicants should consider and clearly define project ownership models, including community or tribal ownership of systems and assets.

The following sections will detail the requirements that are consistent across both topic areas, the technical criteria that are differentiated across topic areas (see [Section 2.2.2](#)), and the Regional Areas of Interest to consider (see [Section 2.2.3](#)).

### 2.2.1.1 Specifications Across All Topic Areas

Projects funded in either Topic Area must satisfy at least one of the objectives listed in BIL Section 40103(c)(3). These "resilient clean energy objectives" are:

- A. Improving overall cost-effectiveness of energy generation, transmission, or distribution systems.
- B. Siting or upgrading transmission and distribution lines.
- C. Reducing greenhouse gas emissions from energy generation in rural or remote areas.
- D. Providing or modernizing electric generation facilities.
- E. Developing microgrids.
- F. Increasing energy efficiency.

DOE encourages projects that position rural or remote communities with energy solutions that are resilient to anticipated regional climate changes (see [Section 2.2.3](#)). Additional benefits may be considered through Program Policy Factors (e.g., drinking water production or use of waste heat for home heating).

### 2.2.1.2 Metrics to Consider Across All Topic Areas

The final determination of the necessary goals and metrics to report and assess for each project will be developed in project negotiation and Phase 1 of implementation (see [Section 2.3](#)). Applicants must demonstrate their method for quantifying and tracking direct benefits through metrics in the Community Benefit from the CBP. Quantitative goals that may be used to assess "benefit" to rural or remote communities include, but are not limited to:

- a. **Improved grid performance**, measured through positive changes in metrics such as a reduction in total prolonged outages, reduction in threshold major event days, improvement in system average interruption duration index (SAIDI) and/or system average interruption frequency index (SAIFI), or similar metrics demonstrating improved reliability as a result of the project.
- b. **Improved resilience**, measured through positive changes in metrics such as restoration time, total number of event days, and/or average number of customers impacted by fewer disruption events, as a result of the project.
- c. **Reduced energy burden and poverty**, measured through positive changes in metrics such as improvement in energy burden from a baseline established prior to project implementation, reduction in the number or frequency of customer arrearages, and/or the percent of customers receiving shut-off notices as a result of the project.
- d. **Increased economic resilience**, measured in ongoing permanent jobs created in the community, wages and benefits, and build-out of the supply chain or other induced economic effects.

- e. **Improved environmental performance from energy generation to support public health**, measured through positive changes in metrics such as air quality index (AQI), total dissolved solids (TDS), streamflow, and aquifer hydraulic head as a result of the project.
- f. **Reduce greenhouse gas impact of energy system**, measured by change in carbon dioxide-equivalent emissions as a result of the project, relative to an established baseline.
- g. **Energy Access**, reducing the number of homes currently without access to electricity.

## 2.2.2 Topic Areas

Applicants should consider each Topic Area and use the guidelines below to determine which Topic Area is the optimal fit for their application. Topic Areas are technology neutral.

### 2.2.2.1 Topic Area 1: Community-Scale Demonstrations

Topic Area 1 solicits proposals to implement clean energy projects with a federal cost share of **at least \$5 million** and **at most \$10 million**, using one or more clean energy technologies that advance resilience and provide other benefits listed above, to a one or more rural or remote communities.

These proposals must demonstrate solutions to barriers that impede broad-scale adoption of clean energy solutions, such as:

- Limited market size.
- Lack of a locally trained workforce.
- Higher project costs due to geographic isolation or other location factors.
- Gaps in existing infrastructure.

Projects proposed under this topic area should be appropriately sized to meet community energy challenges.

Example projects include microgrid designs and service models that enable cost-competitive deployment to a broad set of rural or remote communities; small hydropower systems providing community benefits; hybrid configurations of distributed energy resources that are operable during extreme weather events; and demonstrating operation of existing technologies to new climates.

Applicants to Topic Area 1 must propose to only use commercially available technologies. Proposals must demonstrate the technology is commercially available and identify a plan to procure the proposed technology.

Applicants must propose to demonstrate at least one project installation that benefits at least one rural or remote area. The applicant must clearly articulate benefits of the project to the rural or remote areas and the metrics for assessing these benefits.

### 2.2.2.2 Topic Area 2: Large-Scale Demonstrations

Topic Area 2 solicits proposals to implement clean energy projects with a federal cost share of **at least \$10 million and at most \$100 million**.

Large-scale demonstrations should benefit multiple communities, either through a single installation that benefits multiple rural or remote communities, or through a series of installations with similar or complementary characteristics across multiple communities. For multiple site proposals, the applicant must explain metrics to assess direct benefit to multiple communities.

There are two Areas of Interest (AOIs) for this Topic Area. Proposals may address only one of the two AOIs, but not both, in the same proposal.

#### Area of Interest 1: Aggregation

Aggregation refers to conducting “similar” projects at multiple locations in a manner that leads to a demonstratable benefit relative to conducting that project at only one location. In this context “similar” implies that by virtue of conducting the projects as a portfolio, the proposal addresses one or more of the following:

- Constraints to expanding clean energy, such as limited workforce and supply chain issues.
- Common barriers to rural or remote community energy investments.
- Achievement of lower capital investment costs, economies of scale in purchased equipment or materials, ability to leverage transportation of materials for multiple projects in very remote areas, or other measurable investment improvements.

Example proposals under this AOI include: an aggregation of solar and/or wind farms, with or without energy storage, in multiple locations that share a common administrative and support staff; or grid hardening and resilience efforts to multiple substations. In these scenarios, the applicant must demonstrate benefits to all indicated communities from the energy generation and related economic activity.

### Area of Interest 2: Single-Site Projects

This AOI includes projects that involve a single installation site that can enable replication of a solution and/or benefit multiple rural or remote communities.

Replication can be achieved many ways; for example, projects may propose investments that can unlock a previously unavailable capability for multiple rural or remote areas that spur follow-on investment in those areas.

Replicability also could be demonstrated by proposing demonstration-ready technologies that are not widely commercially available but leverage unique regional resources. In this latter case, the proposed project might include technology with competitive advantage when deployed in the region, or leverage existing energy assets that have ceased operation, or may soon cease operation, due to the renewable energy transition.

Examples of projects proposed under this topic area include:

- A utility-scale solar, wind farm and/or hydrogen or battery storage facility.
- A bioreactor that uses locally available biomass to replace fossil fuel generation.
- A renewables project that delivers significant additional benefits to a local community.
- A transmission investment that reduces reliance on fossil fuels.
- Clean energy generation in an area having had trouble attracting investment due to geographic isolation.

### **2.2.3 Regions of Interest**

The ERA program encourages applicants to propose technologies that improve one or more rural or remote community's resilience to climate impacts, while inviting all ideas that meet the Topic Area requirements. The Regional Areas of Interest described below outline example regional energy challenges, as well as technologies that could address the impacts.

This FOA divides the United States into Regions of Interest as shown below. The regional breakdown closely resembles those of other federal agencies and is meant to reflect a diversity of regional energy supply and demand, access, and/or climate resilience issues identified by national laboratory experts. The regional breakdown and issues identified in [Table 2](#) are not all inclusive.



Figure 1. Regions of Interest Map

[Table 2](#) below includes potential energy and climate challenges by region, and corresponding example energy technology solutions. Applicants should consider the energy challenges and technologies in this table, but this table is not exhaustive. OCED also welcomes proposals on risks, challenges, and energy technology solutions outside these lists which meet the topic area requirements outlined in [Section 2.2.2](#). The Region(s) of Interest should be the location of the rural or remote area(s) that will benefit from the project.

- Applicants should first identify the Topic Area specific to their proposal (see [Section 2.2.2](#)). Then, applicants must specify all Region(s) of Interest that will benefit from the proposed energy improvement(s).
- Concept Papers and Applications must identify at least one Topic Area and all Region(s) of Interest.
- If the project will cover more than one Region of Interest, the project must address at least one energy challenge per Region of Interest. Projects must propose installation(s) in one or more U.S. states or territories within the Region of Interest or improve rural or remote area(s) in one or more U.S. state or territory within the Region of Interest.

Table 2. Potential Regional Energy Challenges and Technologies

| Region Name   | States/Territories                                       | Common Regional Energy Challenges                                                                                                                                                                                                                                                                             | Example Regional Technology Solutions                                                                                                                                                                    |
|---------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Northeast     | CT, D.C., DE, MA, ME, MD, NH, NJ, NY, PA, RI, WV, VA, VT | <ul style="list-style-type: none"> <li>• Coastal and grid infrastructure resilience</li> <li>• Aging infrastructure</li> <li>• Reliance on fuel oil</li> </ul>                                                                                                                                                | <ul style="list-style-type: none"> <li>• Utility-scale storage</li> <li>• Coal to renewable energy conversion</li> <li>• District heating, including geothermal</li> </ul>                               |
| Southeast     | AL, FL, GA, KY, MS, NC, SC, TN                           | <ul style="list-style-type: none"> <li>• Coastal resilience of renewable power and grid infrastructure</li> <li>• Aging infrastructure</li> <li>• Energy systems integration</li> </ul>                                                                                                                       | <ul style="list-style-type: none"> <li>• Utility-scale solar and wind</li> <li>• Utility-scale energy storage</li> <li>• Grid modernization</li> </ul>                                                   |
| Midwest       | IA, IL, IN, MI, MN, MO, OH, WI                           | <ul style="list-style-type: none"> <li>• Aging infrastructure</li> <li>• Wind energy integration</li> <li>• Reliance on coal</li> </ul>                                                                                                                                                                       | <ul style="list-style-type: none"> <li>• Utility-scale solar and wind</li> <li>• Biorefineries</li> <li>• Decarbonizing the industrial and agricultural sectors</li> <li>• Grid modernization</li> </ul> |
| South-Central | AR, LA, NM, OK, TX                                       | <ul style="list-style-type: none"> <li>• Wind energy integration</li> <li>• Climate impacts</li> <li>• Grid expansion, integration, and modernization</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>• Utility-scale solar and wind</li> <li>• Hydrogen infrastructure</li> <li>• Utility-scale energy storage</li> </ul>                                              |
| North Central | CO, KS, ND, NE, MT, SD, UT, WY                           | <ul style="list-style-type: none"> <li>• Reliance on coal</li> <li>• Grid expansion, integration, and modernization</li> <li>• Working with tribal governments to support next-generation clean energy and efficient water use</li> <li>• Limited transmission access and capacity</li> </ul>                 | <ul style="list-style-type: none"> <li>• Utility-scale solar and wind</li> <li>• Biorefineries</li> <li>• Grid modernization</li> <li>• Carbon-free agriculture</li> </ul>                               |
| Southwest     | AZ, CA, NV                                               | <ul style="list-style-type: none"> <li>• Water constraints</li> <li>• Increasing energy demand</li> <li>• Climate impacts, especially fires</li> <li>• Limited transmission capacity</li> <li>• Utilities</li> </ul>                                                                                          | <ul style="list-style-type: none"> <li>• Energy-water nexus efficiency</li> <li>• Geothermal</li> <li>• Biomass</li> <li>• Distributed storage and microgrids</li> </ul>                                 |
| Northwest     | ID, OR, WA                                               | <ul style="list-style-type: none"> <li>• Climate change impacts on energy reliability and energy demand</li> <li>• Balancing multiple resource interests and protecting the environment</li> <li>• Working with tribal governments to support next-generation clean energy and efficient water use</li> </ul> | <ul style="list-style-type: none"> <li>• Microgrids</li> <li>• Hydro and marine hydrokinetic power</li> <li>• Geothermal for generation and district heating</li> </ul>                                  |
| Alaska        | AK                                                       | <ul style="list-style-type: none"> <li>• Providing affordable, reliable, resilient energy for small, isolated populations</li> <li>• Reliance on costly diesel fuel</li> </ul>                                                                                                                                | <ul style="list-style-type: none"> <li>• Microgrids</li> <li>• Small-, large-scale, and long-duration storage</li> </ul>                                                                                 |

| Region Name             | States/Territories           | Common Regional Energy Challenges                                                                                                                                                          | Example Regional Technology Solutions                                                                                                                              |
|-------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         |                              | <ul style="list-style-type: none"> <li>• Opportunities to apply available hydropower and wind resource baseload power in Railbelt electric grid (as well as other technologies)</li> </ul> | <ul style="list-style-type: none"> <li>• System hardening and redundancy</li> </ul>                                                                                |
| Islands and Territories | AS, GU, HI, PR, USVI, and MP | <ul style="list-style-type: none"> <li>• Reliance on relatively high-cost fuel oil and diesel generation</li> <li>• Power quality and reliability</li> <li>• Climate impacts</li> </ul>    | <ul style="list-style-type: none"> <li>• Utility and microgrid solar/wind</li> <li>• Long-duration energy storage</li> <li>• Small-scale green hydrogen</li> </ul> |

## 2.3 Project Management Structure

OCED projects follow a structured, phased management approach. The application should describe how the project will be managed in accordance with these phases. The approach includes the following five phases:

- Phase 0 – Application
- Phase 1 – Detailed Project Planning
- Phase 2 – Project Development, Permitting, and Financing
- Phase 3 – Installation, Integration, or Construction
- Phase 4 – Ramp-Up and Sustained Operations

Each phase includes specific activities and associated requirements, which will be tailored during award and phase negotiations to the size and complexity of the proposed project. Please refer to the OCED ERA Project Management Structure (PMS) section in the Guidance Document available on OCED eXCHANGE under this FOA’s posting for details on each of the phases mentioned above.

## 2.4 Pre-award Technical Assistance, Related Prize Competition, Related Programming

The ERA program is providing resources to assist communities in building successful teams, developing necessary technical analysis, tracking metrics, and sharing experiences. For this FOA, the Energizing Rural Communities Prize competition, and subsequent ERA FOAs, technical assistance is available to communities to support the initial development of project concepts. Options for technical assistance and other ERA activities are illustrated below, in [Figure 2](#). Applicants can access the technical assistance through the [ERA website](#). Experts from the DOE national laboratories are available to meet with communities in an “Office Hour” format, as well as being available for limited individual sessions.

By mid-2023, regional technical assistance also will be available through a partnership with the [EPA's Environmental Justice Thriving Community Technical Assistance Centers \(EJ TCTAC\)](#). Finally, a Grant Program to support small projects less than \$5 million in size will be announced later this spring. This programming will include reduced application requirements for community-based clean energy project proposals requiring less than \$5 million in federal support.

The ERA program will coordinate with established federal and non-profit entities that can facilitate connections, including the whole-of-government [Rural Partners Network \(RPN\)](#), led by the U.S. Department of Agriculture (USDA). RPN Community Liaisons are full-time federal staff members that help enhance connections between rural communities and Federal resources and provide technical assistance tailored to the community's unique needs and objectives. ERA also will coordinate with USDA's Rural Utilities Service, which can provide loan financing with debt forgiveness to rural communities for renewable energy.

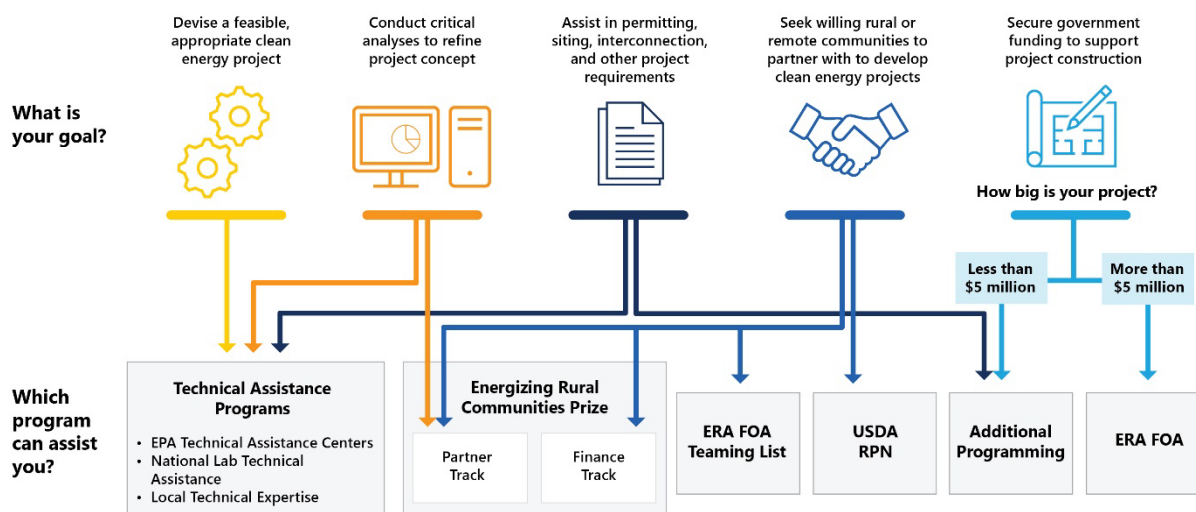


Figure 2: Pre-award technical assistance, prize competition and related programming

## 3.0 Award Information

|                                    |                                                                                                                                                              |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Anticipated Type of Award:</b>  | Cooperative Agreement                                                                                                                                        |
| <b>Application Types Allowed:</b>  | New                                                                                                                                                          |
| <b>Estimated Number of Awards:</b> | 7 - 28                                                                                                                                                       |
| <b>Anticipated Funding Amount:</b> | \$300,000,000                                                                                                                                                |
| <b>Award Budget:</b>               | Application budgets are limited to amounts noted on <a href="#">Table 1</a> per award.<br>Anticipated maximum federal funding for this FOA: \$300 M          |
| <b>Award Project Period:</b>       | The maximum project period is 7 years, and the scope of the proposed project would determine that specific project period within the maximum project period. |

A Cooperative Agreement is an award funding type where there will be substantial federal scientific or programmatic involvement. See [Appendix A](#) of this FOA for additional award information, and the Guidance Document available on OCED eXCHANGE under the FOA's posting for additional award guidance and information about Substantial Involvement.

The applicant will establish four phases for the proposed project. DOE will initially fund Phase 1. Subsequent funding for Phase 2–4 is dependent on Go/No-Go determinations and recipient performance.

## 4.0 Eligibility Information

Section 40103(c) of the BIL defines rural or remote areas as a “city, town, or unincorporated area that has a population of not more than 10,000 inhabitants.” Applications must identify at least one area in the United States (including U.S. territories) with a population of not more than 10,000 (using the 2020 Census Bureau figures) that will benefit from the proposal. The identified area must be either: (a) a city, town or other unincorporated municipality or (b) a Census Designated Place (CDP) or similarly discreet and identifiable community that is not located within an incorporated municipality. Applications that do not satisfy this requirement will be considered ineligible and removed from further evaluation. See the Guidance Document for this FOA available on OCED eXCHANGE under this FOA's posting for information on how to use the U.S. Census Bureau Data to determine a community's population.

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.

## 4.1 Eligible Applicants

### 4.1.1 Domestic Entities

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

1. Institutions of higher education
2. Non-profit entities
3. For-profit entities
4. Tribal Nations
5. State and local governmental entities
6. Incorporated Consortia
7. Unincorporated Consortia

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. [Appendix B](#) 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.

Federal agencies and instrumentalities (other than DOE) are not eligible to participate in projects funded under this FOA under any capacity. DOE/National Nuclear Security Administration (NNSA) Federally Funded Research and Development Center (FFRDC) and non-DOE/NNSA FFRDC are not eligible to participate as prime or subrecipients under this FOA.

Please refer to the Applicant Eligibility Guidance section on the Guidance Document for this FOA available on OCED eXCHANGE under this FOA's posting for descriptions on the types of entities listed above and requirements.

Please note that DOE will not assess an organization's eligibility prior to the application deadline.

## 4.2 Cost Sharing

Applicants are bound by the cost share proposed in their applications if selected for award negotiations. 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 third-party financing. Federal financing, such as DOE Loan Guarantees, cannot be leveraged by applicants to provide the required cost share or otherwise cover the same scope that is proposed in the application. A contingency reserve will also be required for all Phase 3 and 4 activities.

A minimum of 50% non-federal cost share is required for projects in this FOA, unless the entity applying is eligible for the Special Cost Share described below. This 50% cost share is based on total allowable costs (i.e., the sum of the government share and the recipient share of allowable costs equals the total allowable cost of the project) and must come from non-federal sources unless otherwise allowed by law.

**Special Cost Share for Domestic Institutions of Higher Education, Domestic Nonprofit Entities, and U.S. State, Local, or Tribal Government Entities:** The recipient cost share requirement for the non-federal share of projects is reduced from 50% to 20% where the prime recipient is a domestic institution of higher education; domestic nonprofit entity; or U.S. state, local, or tribal government entity (including Alaska Native Corporations and Alaska Native Village Corporations).

Applicants who believe their project qualifies for the reduced recipient cost share must be able to provide verification that the above requirements are satisfied.

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 if the cost share requirement for the project as a whole is met. Although the non-federal cost share requirement applies to the project as a whole, including work performed by members of the project team other than the applicant, the applicant is legally responsible for paying the entire cost share.

If the funding agreement is terminated prior to the end of the project period, the applicant is required to contribute at least the cost share percentage of total expenditures incurred through the date of termination.

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

### 4.3 Responsiveness Criteria

The following types of applications will be deemed nonresponsive and will not be reviewed or considered:

- Applications that fall outside the technical parameters specified in Sections [2.1](#) and [2.2](#).
- Applications that do not benefit at least one rural or remote area as described throughout [Section 2.2.1.1](#).
- Applications for proposed technologies that are not based on sound scientific principles (e.g., violates the laws of thermodynamics).
- Applications including research, development, and pilot-scale activities.

## 4.4 Limitation on Number of Concept Papers and Applications Eligible for Review

An entity may submit more than one Concept Paper and Application to this FOA provided that each Concept Paper and subsequent Application describes a unique, distinct concept and provided that an eligible Concept Paper was submitted for each Application. There are no limits to submissions by topic area by the prime applicant. DOE will notify applicants of its determination to encourage or discourage the submission of an Application, potentially including reviewer comments. DOE will post these notifications to OCED eXCHANGE.

## 5.0 Application and Submission Information

### 5.1 Application Package

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

- 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- by 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). 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 OCED 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\_Application*).
- Page numbers must be included in the footer of every page.
- 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.

Note: The maximum file size that can be uploaded to the OCED eXCHANGE website is 50 megabytes (MB). Files in excess of 50 MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 50 MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect.

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

## 5.2 Application Submission

There are several one-time actions required 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:

### 5.2.1 OCED eXCHANGE

To apply to this FOA, applicants must register with and submit application materials through OCED eXCHANGE at <https://oced-exchange.energy.gov>, OCED's online application portal. See detailed instructions at [Financial Opportunities: Manuals \(energy.gov\)](#). OCED eXCHANGE is designed to enforce the deadlines specified in this FOA. The "Apply" and "Submit" buttons will automatically disable at the defined submission deadlines. If an applicant experiences technical difficulties with a submission, the applicant should contact the OCED eXCHANGE helpdesk for assistance ([OCED-exchangeSupport@hq.doe.gov](mailto:OCED-exchangeSupport@hq.doe.gov)).

### 5.2.2 Unique Entity Identifier and System for Award Management

Each applicant (unless the applicant is excepted from those requirements under 2 CFR 25.110) is required to: (1) be registered in the System for Award Management (SAM) at <https://www.sam.gov> before submitting its Application; (2) provide a valid unique entity identifier (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. Designating an Electronic Business Point of Contact and obtaining a special password called a Marketing Partner ID Number (MPIN) are important steps in SAM registration.

**NOTE: 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. Additional entity validation resources can be found here: [GSAFSD Tier 0 Knowledge Base - Validating your Entity](#).**

### 5.2.3 FedConnect

Register in FedConnect at <https://www.fedconnect.net>. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at [https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect\\_Ready\\_Set\\_Go.pdf](https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf).

### 5.2.4 Grants.gov

Register in Grants.gov (<http://www.grants.gov>) to receive automatic updates when modifications to this FOA are posted. However, please note that Concept Papers and Applications will not be accepted through Grants.gov. As applicable, modifications to this FOA will be posted on the OCED eXCHANGE website and the Grants.gov system. However, you will only receive an email when a modification is posted if you register for email notifications for this FOA in Grants.gov. OCED 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.

### 5.2.5 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 OCED eXCHANGE and FedConnect.net, constitutes the authorized representative's approval and electronic signature.

## 5.3 Application Forms

The Application forms and instructions are available on OCED eXCHANGE. To access these materials, go to <https://OCED-exchange.energy.gov> and select the appropriate funding opportunity number.

## 5.4 Submission Dates and Times

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

## 5.5 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.
- Civil and/or criminal penalties.

## 5.6 Proposal Content

This application process includes two phases: Concept Paper and Application.

### 5.6.1 Concept Paper

|       |                                                                            |
|-------|----------------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_ConceptPaper |
|-------|----------------------------------------------------------------------------|

Each Concept Paper must be limited to a single concept corresponding to one of the topic areas. The Concept Paper must conform to the requirements listed below, including the stated page limits. Each Concept Paper must be submitted as a single file in OCED eXCHANGE.

The Concept Paper must address all the requirements described in this subsection. DOE will review only the authorized number of pages. Please note that all statements of expertise provided will need to be substantiated in the Application submission, see [Section 5.6.2](#). DOE makes an independent assessment of each Concept Paper based on the criterion in [Section 6.1.1](#). DOE will encourage a subset of applicants to submit Applications and other applicants will be discouraged from submitting an Application, see [Section 7.1.1](#).

The following are the Concept Paper components and their requirements. Each potential applicant must provide the following information as part of the Concept Paper.

| Section and Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Topic Area 1 | Topic Area 2 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| <b>Cover Page</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1 page       | 1 page       |
| <p>The cover page must include the project title, the specific announcement Topic Area and Region of Interest being addressed, both the technical and business points of contact, names of all team member organizations, the project location(s), the <b>rural or remote area(s) that will be receiving technical or community benefits through the proposed project</b>, and any statements regarding confidentiality.</p> <ul style="list-style-type: none"> <li>If the applicant qualifies for a reduced cost share, please indicate that conditions of the special cost share waiver will be met and state the prime recipient's classification based on eligible types (see <a href="#">Section 4.2</a>).</li> <li>See <a href="#">Section 4.0</a> for detail on how to define rural or remote areas of the United States. The applicant must clearly identify the location and population of the communities identified for energy improvements (as defined by the Census Bureau or other legal boundary). Any submission that cannot be easily verified by the definitions set forth by law will not be considered eligible.</li> <li>Describe how the community or communities receiving the benefits of the proposed project are rural or remote. Specific metrics of interest are distance from an urban area or urban cluster and rural-urban commuting area (RUCA) codes (counties with designations from 4-10 are considered rural by USDA). Resources that may be helpful in defining how the community is rural include: <ul style="list-style-type: none"> <li>Miles to an Urbanized Area or Urbanized Cluster: <a href="https://nces.ed.gov/surveys/annualreports/topical-studies/locale/definitions">https://nces.ed.gov/surveys/annualreports/topical-studies/locale/definitions</a></li> <li>RUCA codes: <a href="https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/">https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/</a></li> <li>County maps: <a href="https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural.aspx">https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural.aspx</a></li> </ul> </li> </ul> |              |              |
| <b>Mission &amp; Objective</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1 page       | 2 pages      |

| Section and Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Topic Area 1   | Topic Area 2    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|
| <p>Applicants are required to describe:</p> <ul style="list-style-type: none"> <li>The proposed project, including the technology and/or systems to be developed, construction activities, and infrastructure development.</li> <li>A description of the rural or remote area(s) that will benefit from the project, including: <ul style="list-style-type: none"> <li>An outline of the current energy challenges facing rural or remote areas of the region and the sources of these challenges, and a description of how the proposed project will help overcome one or more of the outlined current energy challenges.</li> <li>To the extent possible, outline any specific energy impacts on the rural or remote communities, and, as applicable, describe how the proposed project will improve resilience.</li> <li><i>(If the project is not located in the rural or remote area of benefit)</i> A description of how of the project will deliver a benefit to one or more rural or remote areas as defined in <a href="#">Section 4.0</a>.</li> </ul> </li> </ul> |                |                 |
| <b>Demonstration Plan</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3 pages        | 4 pages         |
| <p>Applicants are required to describe:</p> <ul style="list-style-type: none"> <li>A preliminary development plan and timeline, including identifying some key risks and challenges to achieve deployment of the proposed project.</li> <li>The impact that DOE funding would have on the proposed project.</li> <li>Briefly explain the plan to sustain the project after federal funds are expended. Describe how the project team will be prepared to operate and maintain the project once constructed. Provide the projected project revenue stream or other income to ensure cash flow for operations and maintenance for the life of the project. State the long-term vision to sustain and maintain the project after completing construction and achieving full operations.</li> </ul>                                                                                                                                                                                                                                                                             |                |                 |
| <b>Management and Organization</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 page         | 2 pages         |
| <p>Applicants must describe the qualifications, experience, and capabilities of the proposed Project Team.</p> <ul style="list-style-type: none"> <li>Describe the skills and expertise that the Lead Project Manager (LPM) and Project Team have to successfully design, develop, and operate the proposed plan. Specific details substantiating claims of expertise will be required in the application.</li> <li>Describe any relevant prior experience which demonstrates an ability to perform tasks of similar risk and complexity. If applicable, provide details on the applicant team's prior work together on projects.</li> <li>A summary organization chart of the team must be provided.</li> <li>Applicants may provide other graphs, charts, or data to supplement their Demonstration plan and Project Team Descriptions.</li> </ul>                                                                                                                                                                                                                        |                |                 |
| <b>Community Benefits Plan</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2 pages        | 3 pages         |
| <p>Applicants are required to clearly illustrate how the proposal benefits a rural or remote community. Briefly explain these four core elements:</p> <ul style="list-style-type: none"> <li>Supporting meaningful community and labor engagement.</li> <li>Investing in the American workforce by creating good local jobs and supporting a skilled workforce.</li> <li>Advancing diversity, equity, inclusion, and accessibility.</li> <li>Contributing to the Justice40 Initiative goal that 40% of the overall climate and clean energy investments flow to Disadvantaged Communities.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                 |
| <b>Total Concept Paper Maximum Page Limit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>8 pages</b> | <b>12 pages</b> |

## 5.6.2 Application

### **Only applicants who have submitted an eligible Concept Paper will be eligible to submit an Application.**

Applicants will have approximately 60 days from DOE's posting of the Concept Paper Encourage/Discourage notification on OCED eXCHANGE to prepare and submit an Application. Regardless of the date the applicant receives the Encourage/Discourage notification, the submission deadline for the Application remains the date and time stated on the FOA cover page.

Each Application must be limited to a single proposal. Applications must conform to the content and form requirements listed below and must not exceed the stated page limits. Applicants must provide sufficient citations and references to justify the claims and approaches made to DOE. However, DOE and reviewers are under no obligation to review cited sources.

#### 5.6.2.1 Application for Federal Assistance (SF-424)

|       |                                                                      |
|-------|----------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_App424 |
|-------|----------------------------------------------------------------------|

The Standard Form ([SF-424](#)) represents the government-wide standard form for grant application packages, and requires basic information about the applicant (name, address, telephone number, type of applicant, etc.), including a list of sources of proposed funding and a description of the proposed project. Complete all required fields in accordance with the instructions on the form.

In Field 21 of the SF-424, the authorized representative must certify and agree with the Certification and Assurances found at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>.

Note: The dates and dollar amount on the SF-424 are for the complete project.

#### 5.6.2.2 Technical Volume

|       |                                                                       |
|-------|-----------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_TechVol |
|-------|-----------------------------------------------------------------------|

The Technical Volume must include the table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all the components listed above. The Applicant should consider the weighting of each of the technical review criterion (see [Section 6.1.2](#) of the FOA) when preparing the Technical Volume.

The maximum page length for the Technical Volume is 25 pages for Topic Area 1, and 50 pages for Topic Area 2. **All elements of the Technical Volume must be addressed; however, it is expected the applicant will tailor the information provided in the Technical Volume to the size and complexity of the proposed project.**

## TOPIC AREA 1

This section provides guidance for Topic Area 1 applicants.

| Section and Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Approximate length |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>a) Cover Page</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                  |
| <p>The project summary must include the project title, the specific FOA Topic Area and Region of Interest being addressed, the technical and business points of contact, senior/key personnel and their organizations (including collaborating organizations), the project location(s) by the city, state, and zip code + 4 for each location where project work will be performed by the prime recipient or subrecipient(s), any statements regarding confidentiality as described in <a href="#">Appendix Section A.5.1</a>.</p> <ul style="list-style-type: none"> <li>For each proposed prime recipient and subrecipient(s) that meets the criteria for domestic entity as stated in <a href="#">Section 4.1.1</a>, the applicant must state and certify that entity's domestic entity status.</li> <li>For each proposed prime recipient and subrecipient(s) that does not meet the criteria for domestic entity stated in <a href="#">Section 4.1.1</a>, the applicant must state the entity's status as a foreign entity and submit a foreign entity waiver request as specified in <a href="#">Appendix B</a>.</li> </ul> |                    |
| <b>b) Project Overview</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2                  |
| <p>This section is a description of the overall scope and objectives of the project. It must include:</p> <ul style="list-style-type: none"> <li>A description of the energy and climate challenges that the rural or remote area(s) being targeted face, and why the proposed solution appropriately addresses these challenges.</li> <li>The impact of DOE funding and how the DOE funding, relative to prior, current, or anticipated funding from other public and private sources, is necessary to achieve the project objectives.</li> <li>An explanation of the technology being proposed, integration with the power distribution network or "grid" including any necessary infrastructure, and selected geographic region(s) and site(s). The project summary may include schematics such as process flow diagrams and a high-level schedule.</li> <li>The ways in which the proposed project location and related infrastructure, skilled workforce, community engagement, etc. will contribute to the overall project viability and long-term success.</li> </ul>                                                      |                    |
| <b>c) Business Development and Management</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4                  |
| <p>This section must include preliminary versions of:</p> <ul style="list-style-type: none"> <li>Business Plan, including viability assessment, key contracts, permits and agreements, preliminary site selection and considerations, customer/community impact assessment, and similar.</li> <li>Management Plan, including key organizational members and structure, roles and responsibilities, and relevant prior experience.</li> <li>Financial Plan, including total project funding requirements, financial relationship between project members, plan and ability to meet cost share, including other sources of project funding or finance.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>d) Engineering, Procurement, Construction, and Operations (EPC&amp;O)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>4</b>  |
| This section must include: <ul style="list-style-type: none"> <li>• A description of the technologies intended to be utilized for the project.</li> <li>• A description of existing infrastructure, equipment and facilities that will be impacted.</li> <li>• Any preliminary engineering evaluations and designs and associated cost estimates.</li> <li>• Plans for completion of engineering, design and procurement activities.</li> <li>• Plans for operations and maintenance of the system.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |
| <b>e) Safety and Occupational Health, Cybersecurity, Permitting and Regulatory Requirements</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1</b>  |
| This section should include: <ul style="list-style-type: none"> <li>• Safety and Occupational Health Plans (SOHPs): Applications should include a brief description of safety culture, including safety and occupational health plan, and available performance history (such as an OSHA 300A form or Experience Modification Rating) of the entities and management involved in the award.</li> <li>• Cybersecurity: While a detailed plan is not required, applicants should specify any potential threats or vulnerabilities that they have identified.</li> <li>• Permitting: Applications should include a permitting workflow overview that identifies the anticipated federal, state, and local codes, regulations, and permitting requirements applicable to siting, construction, and operation of the proposed project. If an application is selected for negotiation of award, applicants will be required to complete an Environmental Considerations Summary in support of NEPA compliance.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    |           |
| <b>f) Risk Analysis and Mitigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>2</b>  |
| This section must include an initial Risk Management Plan (RMP), including: <ul style="list-style-type: none"> <li>• Identification of the commercial, technical, construction, schedule, regulatory, permitting, safety, scale-up, infrastructure, financial, management, organizational, and market related risks.</li> <li>• Assessment of the probability of occurrence of realization and potential impacts.</li> <li>• Proposed mitigations.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |
| <b>g) Workplan</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>4</b>  |
| The Workplan must include: <ul style="list-style-type: none"> <li>• Project Objectives <ul style="list-style-type: none"> <li>○ Buy America Requirement for Infrastructure Projects: Within the first 2 pages of the proposed workplan or project description, include a short statement on whether the project will involve the construction, alteration, maintenance and/or repair of public infrastructure in the United States. See <a href="#">Appendix Section A.2.3</a> for more information on Buy America Requirements for Infrastructure Projects.</li> </ul> </li> <li>• Technical Scope Summary, divided by performance periods in alignment with the four Project Phases described in Figure 2 and separated by discrete decision points.</li> <li>• Work Breakdown Structure (WBS) and Task Description Summary, with a concise description of the specific activities to be conducted over the life of the project (including project construction and operations) for each task/subtask.</li> <li>• Go/No-Go Decision Points for each project phase.</li> <li>• A summary of the End of Project Goal.</li> <li>• Integrated Project Schedule (IPS) for the entire project, including task and subtask durations, milestones, Community Benefits Plan, and Go/No-Go decision.</li> </ul> <p>The Workplan will be utilized as the basis for the cooperative agreement that will be negotiated if selected for award.</p> |           |
| <b>Total Technical Volume Maximum Page Limit (TA1 only)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>20</b> |

## TOPIC AREA 2

This section provides guidance for Topic Area 2 applicants.

| Section and Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Approximate length |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>a) Cover Page</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                  |
| <p>The project summary must include the project title, the specific FOA Topic Area and Region of Interest being addressed, the technical and business points of contact, senior/key personnel and their organizations (including collaborating organizations), the project location(s) by the city, state, and zip code + 4 for each location where project work will be performed by the prime recipient or subrecipient(s), any statements regarding confidentiality as described in <a href="#">Appendix Section A.5.1</a>.</p> <ul style="list-style-type: none"> <li>For each proposed prime recipient and subrecipient(s) that meets the criteria for domestic entity as stated in <a href="#">Section 4.1.1</a>, the applicant must state and certify that entity's domestic entity status.</li> <li>For each proposed prime recipient and subrecipient(s) that does not meet the criteria for domestic entity stated in <a href="#">Section 4.1.1</a>, the applicant must state the entity's status as a foreign entity and submit a foreign entity waiver request as specified in <a href="#">Appendix B</a>.</li> </ul> |                    |
| <b>b) Project Overview</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3                  |
| <p>This section is a description of the overall scope and objectives of the project. It must include:</p> <ul style="list-style-type: none"> <li>A description of the energy and climate challenges that the rural or remote area(s) being targeted face, and why the proposed solution appropriately addresses these challenges.</li> <li>The impact of DOE funding and how the DOE funding, relative to prior, current, or anticipated funding from other public and private sources, is necessary to achieve the project objectives.</li> <li>An explanation of the technology being proposed, integration with the power distribution network or "grid" including any necessary infrastructure, and selected geographic region(s) and site(s). The project summary may include schematics such as process flow diagrams and a high-level schedule.</li> <li>The ways in which the proposed project location and related infrastructure, skilled workforce, community engagement, etc. will contribute to overall project viability and long-term success.</li> </ul>                                                          |                    |
| <b>c) Business Development and Management</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 12                 |
| <p>This section must include a Business Plan, Management Plan, and Financial Plan as necessary elements detailed below. The project's level of development and level of detail within these plans will evolve over the life of the project.</p> <p><b>Business Plan:</b></p> <p>The plan must include key success metrics and high-level milestones to be completed throughout the project, such as signing key contracts and agreements, securing permits, completing National Environmental Policy Act (NEPA) reviews, executing financial close, commencing site preparation and construction, achieving commercial operations (i.e., near or full design capacity), and evaluating/analyzing potential markets.</p> <p><b>Feasibility and Replication:</b> The plan must describe how the project will benefit the communities, its economic feasibility, and its ability to continue to operate and be maintained after Federal funds are expended. Describe an approach to replicating this project to benefit similar rural or remote areas.</p>                                                                           |                    |

**Key Contracts, Permits, and Agreements:** The plan must provide a top-level description, schedule, and status, of all critical path contracts and agreements relevant to the project, encompassing permits, NEPA, design, engineering, technology licensing, financing, construction, startup, commissioning, operation, and maintenance. For projects which will be supplying power or any other product on a commercial basis, a description and status of any off-take agreements must be presented.

**Preliminary Site Selection:** The plan must describe the rationale for selection of the project site(s) and contain evidence of control over the site(s) or the plan to establish control over the site(s) as well as community feedback. Site selection considers regional specific resources, supply chains, as well as climate and physical risks (e.g., fire, flood) to ensure resilience/sustainability of the project.

**Market Analysis:** The plan must include the projected customer base and offer metrics to support proposed benefits to the identified rural or remote area, such as the \$/kWh a customer currently pays, identify any energy challenges faced by that area, and forecast how the energy improvements may address some of these challenges. For large-scale projects intended to produce commercial revenue a justification of the benefits of this project over existing and other competing approaches. Applicant must identify competing approaches which might exist. The plan must also discuss dependencies on tax benefits or other government policies and incentives, and how the proposal will leverage any benefits to/for the success of the project.

**Replication and Additional Benefits:** The plan should briefly offer a long-term vision beyond the award performance period. One goal of this FOA is to eliminate barriers to rural or remote areas, and the applicant should consider if the proposed project may be used as an example for other, similar rural or remote communities within the region.

#### **Management Plan:**

This plan must include the project organizational structure, organization capabilities, and operations plan; the financial strength of the project lead and any major project partners; and the prior experience of the senior/key personnel in similar or related undertakings. The plan includes:

**Organizational Structure:** As part of the plan, the applicant must provide an organizational chart of key entities and senior/key personnel. The organizational chart and related description should show the prime recipient and any major project partners, subsidiaries, affiliates, parent organizations, or joint ventures associated with the project as well as an explanation of the legal structure (e.g., corporation, partnership, LLC). The application must describe the prime recipient and any major project partners' business relationship(s) and the various roles and responsibilities held by each organization. Applicants are required to propose project teams that demonstrate the capability to complete the proposed work. Applicants must submit a letter of commitment from each team organization that agrees to participate in the proposed project (see [Section 5.6.2.6](#)). The letter is required and must be signed by the person authorized to commit resources on behalf of that team member's organization.

**Management:** The applicant must provide a description of the management and operations strategies to be employed in executing on the proposed plan. The application must list the names of senior/key personnel as well as their responsibilities, positions or titles and the percentage of their time dedicated to executing on the project. If any key management and staff are not expected to spend 100 percent of their time executing on the project, the plan must provide a brief description of their other responsibilities or other activities outside of the award.

**Experience:** The plan must describe in detail the unique capabilities and expertise of the prime recipient and any major project partners or subrecipients, debt or equity sponsors, contractors/vendors (if known), and any other counterparty that the prime recipient believes will enable the project to be successful. In addition, the plan must summarize the prior experience of the prime recipient and any major project partners in similar undertakings (in both technical scope and financial size) and current or previous energy infrastructure projects, both in terms of construction, operations and maintenance, and community engagement.

**Note:** Experience with energy infrastructure projects is preferred; however, experience with similar infrastructure projects will be considered if the applicant, its partners or sub-participants do not have energy infrastructure experience.

**Pending Investigations:** The plan must provide a summary of any pending or threatened (in writing) action, suit, proceeding, or investigation, including any action or proceeding by or before any governmental authority, that relates to the senior/key personnel, and the status of any appeals.

#### **Financial Plan:**

**Funding requirements:** Evaluation of the total required funding for the entire project. The plan must include funding for procurement and construction including medium-term financing for machinery and equipment; longer-term financing for the site and facility including sources and uses; and any required funding beyond internal cash flow, including working capital financing for project long term operation. This should include a detailed plan and schedule for achieving long-term financial viability, beyond DOE and other federal funding; the amount of expected traditional equity investments (identify participants and level of participation, if applicable); the timing of expected equity contributions and/or debt funding; and the timing of repayment of expected debt funding.

**Prime Applicant and Project Partners:** The plan must describe the financial relationship of the project lead to major project partners, including any Foreign Owned Entities, who are contributing cost share and/or performing work. This includes clearly identifying the name of the organization or entity expected to contribute debt or equity financing and any person, organization, or entity who owns or will own five percent (5%) or more of the project entity.

**Financial Strength:** The plan must describe the prime recipient's and major project partner's financial strengths, as well as the project's strategic significance to the prime recipient and major project partner involved.

**Other Federal Support:** Unless allowed by law, federal financing, such as grants or loan guarantees from federal agencies, cannot be leveraged by applicants to provide the required cost share or to otherwise support the same scope of the award. However, other federal support may be used for activities that fall outside of the award scope/budget. The plan must identify whether the award will benefit directly or indirectly from other forms of federal support, such as grants, loan guarantees, tax credits, having federal agencies or entities as a customer or off-taker of the project's products or services, or other federal contracts, including acquisitions, leases, and other arrangements, that may indirectly support the award.

**Non-Federal Support:** The plan must identify other non-federal governmental (including state or local) incentives or other assistance on which the proposed project relies, including grants, tax credits and loan guarantees to support the financing, construction, and operation.

| d) Engineering, Procurement, Construction, and Operations (EPC&O)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12 |
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| <p>The Application should describe high-level engineering (which includes design), procurement, construction, and operation (EPC&amp;O) data, information, and related documents covering technology; performance projections; engineering, design, and procurement; cost estimates; execution schedules; and operating and disposition plans for the project. It is expected that the initial plans submitted as part of the Application will be further developed as the project move through each phase.</p> <p><b>Technology Descriptions</b></p> <p>As part of the Application and throughout the award, the awardee will assess and evaluate the project’s technology maturity or commercial readiness, including level of system integration and infrastructure, which DOE will in turn verify and validate. This assessment will form DOE’s technical risk analysis basis. DOE expects the awardee to actively manage outstanding technology risks, including those driven by technology maturation, level of system integration, and infrastructure needs. While DOE may consider innovative approaches and unique solutions to achieve energy improvements, non-commercially available technologies will be considered higher risk deployments and will require corresponding mitigations which may require development activities outside of the award scope and funding. Award funding may not be used for pilot-scale or earlier activities, such as research and development. If the technology proposed under this topic area is not yet commercially available, a Technology Plan, including a development and technology-based risk management strategy, must be provided in the Application. Note that all technologies must be considered Technology Readiness Level (TRL) 7 before the initiation of Construction.</p> <p><b>Performance Projections</b></p> <p>The Application should include detailed information about performance projections and supporting information including performance assumptions, risks, uncertainties, and variabilities. These performance projections correspond to the technical, risk and cost data, information, and assumptions. Applications must include information about project output performance projections (i.e., power generation) and supporting information.</p> <p><b>Engineering, Design, and Procurement</b></p> <p>Initial engineering, design, and procurement information must be provided as part of the Application. DOE expects Applications will reflect a spectrum of project maturities. Applicants are encouraged to consider that, if their proposal is awarded, the project Planning Phase will require a comprehensive conceptual design that reflects initial accredited engineering studies. At a minimum, the engineering and design should be at least approximately 5% complete at the application stage. Designs should be consistent with information provided in response to requirements described in other sections of the Application.</p> <p>Engineering information submitted with the Application must provide a conceptual description of the type of technology, system integration, and connective infrastructure needed in each step. Key facilities, systems, and technically complex components should be described in detail. Where applicable, proposals should also cite prior successful utilization of the proposed technologies, systems, and infrastructure in like environments.</p> <p>To the extent information is available, Applications must include a detailed description of the project infrastructure in terms of major subsystems and their interconnection(s) and a description of how the project is intended to operate. If available, high-level schematic, technical specifications, equipment supplier and vendor information for all technologies, systems, and connective infrastructure should be included in the Application.</p> |    |

Needs for and plans to balance variable supply and demand signals, as well as resiliency aspects necessary to handle maintenance outages and external system shocks should also be described. Applications must include a description of the proposed procurement plan in accordance with 2 CFR 200.317-327 as available including, but not limited to, the following:

- a) Long lead items and critical equipment and connective infrastructure.
- b) Potential or planned major equipment providers.
- c) Procurement timelines and/or critical path procurements.
- d) Third-party contracting plans.

The applicant is encouraged to describe a strategy to leverage existing U.S. manufacturing and supply chains and support the growth of these domestic capabilities consistent with U.S. job creation goals, the Build America, Buy America (BABA) language in BIL, and related executive orders. Applications should identify any known supply chain risks and plans for timely procurement of supplies from underdeveloped supply chains. For additional information, visit DOE's [Build America, Buy America](#) webpage.

#### **Cost Estimates**

Applicants will be expected to develop detailed cost estimates that meet industry standards, such as the [Association for the Advancement of Cost Engineering \(AACE\) International's](#) standards, for the size and complexity of the proposed project. Cost estimates should be consistent with other financial data and analysis provided as part of the Application. Cost estimates should correspond to the project design maturity and reflect appropriate uncertainties. While DOE is not requiring its use, applicants are encouraged to review [DOE's Cost Estimating Guide](#) which provides examples of industry standard cost estimating approaches and use cases.

Applications must include a current total project cost (TPC) estimate that covers the entirety of the project, including construction and 3–5 years of operations. All project costs falling within the project must be included, including capital, labor, finance, and other cost categories as appropriate for individual plans. Any costs associated with Community Benefits Plan activities should also be included in the TPC estimate. Narratives accompanying cost estimates should include an explanation of the estimate class and/or maturity, a description of the methodology employed, and the uncertainty or accuracy range. While DOE is not requiring specific escalation assumptions be used for the estimated TPC, narratives should identify potential areas of risk due to cost escalation. The cost estimate should consider supply chain dynamics based on their location, potential inflation of material or labor prices, and any region or project specific challenges that may influence cost escalation for the given proposal. Cost estimates should state what assumptions were used and why they were deemed appropriate.

#### **Operating & Maintenance Plans**

A high-level description of Operating & Maintenance (O&M) plans must be included with the Application. The plan must describe the project's concept of operations throughout the four phases. The plan must include estimates of operational costs and revenues beyond the period of DOE funding. It is expected that this conceptual plan will be developed into a fully implementable O&M plan prior to completion of construction.

#### **d) Safety and Occupational Health, Cybersecurity, Permitting and Regulatory Requirements**

6

The Safety and Occupational Health, Cybersecurity, Permitting and Regulatory Requirements document must include these mentioned requirements, NEPA requirements, and other considerations described in detailed below. For guidance and additional information on post-selection safety, security, and regulatory requirements (including NEPA and permitting) refer to the Guidance Document for this FOA available on OCED eXCHANGE under this FOA's posting.

### **Safety and Occupational Health Plans**

Applications should include a brief description of safety culture, including safety and occupational health plan, and available performance history (such as an OSHA 300A form or Experience Modification Rating) of the entities and management involved in the award.

### **Cybersecurity**

Applications should include an assessment of potential cybersecurity threats or vulnerabilities and address cybersecurity challenges in their work scope. If selected for award negotiations, recipients must submit an initial cybersecurity plan during the award negotiations phase. Recipients must develop tailored cybersecurity plans outlining the specific plan to secure the project according to the unique needs of the proposed plan and its associated technologies as applicable. Further development/refinement of the cybersecurity plan will be a required component of Phase 1 activities. Recipients must deliver a final plan to DOE by the end of Phase 2 for review as part of the advancement to Phase 3:

- Cybersecurity plans should be commensurate to the threats and vulnerabilities associated with the proposed efforts and demonstrate the cybersecurity maturity of the project.
- Cybersecurity plans may cover a range of topics relevant to the proposed project, e.g., software development lifecycle, third-party risks, and incident reporting.
- At a minimum, cybersecurity plans should address questions noted in BIL Section 40126 (b) 'Contents of Cybersecurity Plan'.<sup>[3]</sup>

### **Permitting**

Applications should include a permitting workflow overview that identifies the anticipated federal, state, and local codes, regulations, and permitting requirements applicable to siting, construction, and operation of the proposed project. If selected for award, recipients will be required to update the permitting workflow overview during each of the first 3 phases. The Integrated Project Schedule should clearly identify and incorporate timelines for application and expected completion or receipt of all required federal, state, or local permits, approvals, or reviews. Frequent communication with Authorities Having Jurisdiction through the life of the project is encouraged as a means of mitigating permitting delays.

### **National Environmental Policy Act**

DOE's decision of whether and how to distribute federal funds under this FOA is subject to the National Environmental Policy Act (NEPA); 42 U.S.C. § 4321, et seq., which requires federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional information, visit the [DOE NEPA website](#).

While NEPA compliance is a federal agency responsibility and the ultimate decisions remain with the federal agency, all recipients selected for negotiation of an award will be required to assist in the timely and effective completion of the NEPA process. NEPA compliance activities should be accounted for in the project scope, schedule, and budget.

**If an Application is selected for negotiation of award, applicants will be required to complete an Environmental Considerations Summary.**

<sup>[3]</sup> 42 U.S.C. § 18725

### Other Considerations

Local statutory and regulatory authorities. Knowledge of these authorities and associated processes will aid applicants in developing their proposed projects both in the application and award phases. Relevant federal statutes and authorities could include, but are not limited to: Clean Air Act, Clean Water Act, Endangered Species Act (ESA), and National Historical Preservation Act (NHPA).

DOE strongly encourages applicants to include in their proposals frequent and extensive consultation with local community and labor stakeholders with a potential interest in the proposed site(s), aligned with activities in the Community Benefits Plan. Applications should also include plans for monitoring their sites and the environmental effects of their projects from site assessment through commissioning and throughout the entire life of the project.

### f) Risk Analysis and Mitigation

6

The application requires the development of an initial Risk Management Plan (RMP) by the applicant that is accompanied by a corresponding risk register to be used for ongoing risk management.

The RMP provides a narrative that analyzes the commercial, technical, construction, schedule, regulatory, permitting, safety, scale-up, infrastructure, financial, management, organizational, and market related risks. Each identified risk in the RMP should be clearly described, including its probability of realization, potential impacts, and proposed mitigations. As appropriate, identified risks are incorporated into other project documentation, such as execution schedules, cost estimate maturity, and contingency.

### g) Workplan

10

The Workplan must include the Project Objectives, Technical Scope Summary, Work Breakdown Structure (WBS) and Task Description Summary, Go/No-Go Decision Points, End of Project Goal and Integrated Project Schedule (IPS) as necessary elements. **Note on Buy America Requirement for Infrastructure Projects:** Within the first 2 pages of the proposed workplan or project description, include a short statement on whether the project will involve the construction, alteration, maintenance and/or repair of public infrastructure in the United States. See [Appendix Section A.2.3](#) for more information on Buy America Requirements for Infrastructure Projects.

### Project Objectives

The applicant must provide a clear and concise (high-level) statement of the goals and objectives of the project as well as the expected outcomes.

### Technical Scope Summary

The applicant must provide a summary description of the overall work scope and approach to achieve the objective(s). The overall work scope is to be divided by performance periods in alignment with the four Project Phases described in Figure 2 and separated by discrete decision points (see below for more information on Go/No-Go Decision Points). The applicant should describe the specific expected result of each performance period, including milestones detailed in the Community Benefits Plan.

### WBS and Task Description Summary

The Workplan must describe the work to be accomplished and how the applicant will achieve the project schedule, will accomplish the final project goal(s), and will produce all deliverables. The plan is to be structured with a hierarchy of performance period, task and subtasks, which is typical of a standard WBS for any project. Tasks/subtasks described in the plan shall contain a concise description of the specific activities to be conducted over the life of the project (including project construction and operations).

The description shall be a full explanation and disclosure of the project being proposed (i.e., a statement such as “we will then complete a proprietary process” is unacceptable). It is the applicant’s responsibility to prepare an adequately detailed task plan to describe the proposed project and the plan for addressing the objectives of this FOA. The IPS should be based on the identified tasks/subtasks.

#### **Go/No-Go Decision Points**

Provide a summary of project-wide Go/No-Go Decision Points at appropriate points in the project schedule. The applicant should also provide the specific technical criteria to be used to evaluate the project at the Go/No-Go Decision Point.

#### **End of Project Goal**

The applicant must provide a summary of the project’s end of project goal(s), including successfully demonstrating commercial operations and financial viability, contributing to the improvement of the energy resilience and region climate challenges of one or more rural communities, providing positive community benefits, and catalyze follow-on investments beyond the award.

#### **Integrated Project Schedule**

An IPS that reflects all overall project elements is required. The initial IPS must include all major project activities and milestones including engineering, design, procurement construction, and CBP activities. The schedules submitted include and clearly identify the project critical path and near critical paths; the anticipated project baseline schedule; the major project milestones and deliverables associated with all project areas, including but not limited to, technology maturation, business development, engineering, procurement, construction, societal considerations and impacts activities, permitting, safety, and regulatory; and activities supporting completion of those milestones and deliverables.

|                                                             |
|-------------------------------------------------------------|
| <b>Total Technical Volume Maximum Page Limit (TA2 only)</b> |
|-------------------------------------------------------------|

|           |
|-----------|
| <b>50</b> |
|-----------|

### **5.6.2.3 Community Benefits Plan: Job Quality and Equity**

|       |                                                                             |
|-------|-----------------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_Comm_Benefits |
|-------|-----------------------------------------------------------------------------|

BIL-funded projects are expected to support meaningful community and labor engagement; invest in the American workforce; advance diversity, equity, inclusion, and accessibility; and contribute to the President’s goal that 40% of overall benefits of certain federal investments flow to disadvantaged communities (the Justice40 Initiative).

Applications must include a Community Benefits Plan (CBP) describing how the project will incorporate these four objectives. CBP milestones and workplan descriptions should be incorporated into the project schedule, workplan, budget, and other key documents. For projects impacting multiple communities, CBPs should address all four objectives across all communities. CBPs must address the technical review criterion titled, “Community Benefits Plan: Job Quality & Equity” (see [Section 6.1.2](#)). Applicants are encouraged to provide Community and Labor Partnership Documentation (submitted under the Community Partnership Documentation, [Section 5.6.2.4](#)) from organizations reflecting engagement and feedback on the applicant’s CBP.

CBP requirements, described below, are flexible to allow project teams to respond to communities, workers, and impacted groups. In case of incomplete information, applicants should explain the reason and provide plans to address gaps.

The CBP should provide the most details for Phase 1 and offer a high-level summary of proposed goals, deliverables, outcomes, and implementation strategies for Phases 2–4. DOE will provide feedback to awardees and require updates to CBPs during award negotiations. DOE will provide guidance to awardees on updating the CBP across project phases and incorporating outcomes and findings in final reports. DOE or its representative(s) expect to independently evaluate recipients' implementation status and effectiveness and incorporate independent findings into Go/No-Go reviews.

Detailed guidance on creating the CBP will be provided under the application documents section on the OCED Exchange website at <https://oced-Exchange.energy.gov>. Applicants are encouraged to read this guidance and leverage information generated in other portions of this FOA to support CBP development.

**Community and Labor Engagement:** This section should describe the applicant's plans to engage with community stakeholders in all impacted communities. Engagement should be responsive to the priorities of impacted groups, ensure community and labor input can affect project decisions, and support transparency and accountability.

If awarded and in conjunction with DOE, awardees will also identify federally recognized Indian tribes, including Alaska Native village or regional or village corporations (who are not project partners) whom the proposed project may impact. The awardee will provide information to support DOE's development of a tribal engagement plan that acknowledges each tribe's consultation policies, traditions, and expectations, and adheres to DOE Order 144.1 on tribal consultation, so appropriate mitigation can be identified through government-to-government consultation to off-set potentially adverse impacts. DOE is and remains responsible for government-to-government consultation with federally recognized Indian tribes, including Alaska Native village or regional or village corporations.

This section should include the following elements:

- **Background and Experience.** Summarize the project team's prior and ongoing efforts to engage community stakeholders, tribes, workforce organizations, and labor unions.
- **Community History, Dynamics, and Stakeholders.** Describe the community/communities that will be impacted by the project, including their current and historical social, cultural, economic, labor, and environmental landscape(s), decision-making structures, and other relevant information. Identify key stakeholder groups and describe existing labor and community support for and/or concerns with the project. For projects impacting multiple communities, cover all impacted communities.

- **Strategies, Methods, and Timeline.** Describe high-level objectives, approaches, and timelines for engaging stakeholders (including traditionally excluded stakeholders), workforce organizations, labor unions, and other impacted communities, matching engagement methods to project phases and goals. Describe how the project will incorporate input from community stakeholders impacted by the project and how engagement can impact project decisions, characteristics, or site selection.
- **Workforce and Community Agreements Statement.** Describe plans to negotiate a Community Benefits Agreement, Good Neighbor Agreement, Project Labor Agreement, Community Workforce Agreement, and/or other collective bargaining agreements. Applicants should consider pursuing multiple agreements. Projects impacting multiple communities should strongly consider developing such agreements with each community.
- **Resource Summary.** Summarize the resources dedicated to implementing the plan including staff with relevant expertise, facilities, and budget. This could include an indication of how DOE funding would support resources for engagement.

**Investing in the American Workforce:** This section should describe plans to create and retain high-paying quality jobs and develop a skilled local workforce, which can support project stability, continuity, and success, and help meet program goals.

This section should include the following elements\*:

- **Background and Experience.** Summarize previous or ongoing efforts to invest in the local workforce and create quality jobs, invest in workforce development, and protect worker rights.
- **Quality Jobs.** Describe plans to attract and retain a skilled, local, and diverse workforce for construction and ongoing operations. Describe the anticipated quality of jobs benchmarking wages and benefits against local prevailing wage or average wages for the industry and occupations.<sup>1</sup>
- **Workforce Development.** Describe plans for investing in workforce development, including workforce education and training for local workers and support for workers' skill acquisition and opportunities for advancement.
- **Worker Rights.** Describe how you will encourage worker organizing and collective bargaining, so that workers can form and join unions of their choosing, and how they will have the opportunity to organize with the purposes of exercising collective voice in the workplace in both construction and ongoing operations.
- **Milestones and Timelines.** List milestones and timelines for the proposed activities.
- **Resource Summary.** Describe the resources including staff with relevant expertise, facilities, and budget dedicated to these activities. This could include an indication of how DOE funding would support these resources.

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<sup>1</sup>[Community Benefits Plan Frequently Asked Questions \(FAQs\) | Department of Energy](#): See heading "What is a good job?" for indicators of quality jobs.

*\* Applicants who will not directly employ a workforce should demonstrate how they will work with anticipated employers to ensure project jobs align with the above goals.*

**Diversity, Equity, Inclusion, and Accessibility (DEIA):** This section should detail how DEIA objectives will be incorporated into the project and describe how the applicant will partner with underrepresented businesses, educational institutions, and training organizations that serve workers facing barriers to quality jobs, and/or other partners to help support DEIA.

Minority Serving Institutions; Minority Business Enterprises; Minority-, Woman-, or Veteran-Owned Businesses; Tribal Colleges and Universities; community- or faith-based organizations, or entities in underserved communities that meet eligibility requirements (see [Section 4.0](#)) are encouraged to participate on application teams. Selection Officials may consider the inclusion of these types of entities as part of the selection decision (See [Section 6.2.1](#)).

Elements of the DEIA plan should include the following:

- **Background and Experience.** Describe the team’s prior and ongoing DEIA efforts.
- **Strategies, Milestones, and Timelines.** Describe DEIA outcomes and implementation strategies, aligned with project phases and workplans. This may include plans to provide comprehensive supportive services (to improve representation and access to jobs) and partner with Minority-, Woman-, or Veteran-Owned Businesses and/or organizations serving under-represented communities and those facing barriers to employment.
- **Resource Summary.** Describe project resources dedicated to implementing DEIA activities including staff with relevant expertise, facilities, and budget. This could include an indication of how DOE funding would support resources for DEIA activities.

**Justice40 Initiative:** This section should describe the team’s plans to advance energy and environmental justice (EEJ) through the project. It should include an assessment of project impacts and where they flow, and an implementation strategy describing actions to maximize benefits and minimize negative impacts and measure, track, and report impacts.

Specifically, the Justice40 Initiative section must include:

- **Assessment of impacted communities and groups.** Describe all communities or groups that could experience impacts from the proposed project and characterize the existing burdens they face using EJSCREEN,<sup>2</sup> disadvantaged community definition tools, or other analytic tools. Identify which of these are considered disadvantaged communities.<sup>3</sup>

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<sup>2</sup> <https://www.epa.gov/ejscreen>

<sup>3</sup> Pursuant to E.O. 14008 and the Office of Management and Budget’s Interim Justice40 Implementation Guidance M-21-28, DOE has developed a definition and tools to locate and identify disadvantaged communities. These resources can be located at <https://energyjustice.egs.anl.gov/>. DOE will also recognize disadvantaged communities as defined and identified by the White House Council on Environmental Quality’s Climate and Economic Justice Screening Tool (CEJST), which can be located at <https://screeningtool.geoplatform.gov/>.

- **Assessment of project benefits.** Describe all anticipated project benefits,<sup>4</sup> enumerating:
  - a) Project benefits and metrics that will be used to track each benefit.
  - b) Where/to whom project benefits are expected to flow and the extent to which they flow to disadvantaged communities or overburdened, underserved groups.
  - c) How benefits align with community priorities identified through engagement.
- **Assessment of project negative impacts.** Describe all anticipated project negative impacts (including direct, indirect, and cumulative impacts),<sup>5</sup> enumerating:
  - a) Project negative impacts and metrics that could be used to track each impact.
  - b) Where/to whom impacts are expected to flow and the extent to which these impacts flow to disadvantaged communities or overburdened, underserved groups.
  - c) How project negative impacts will interact with existing cumulative burdens.
- **Implementation Plan, Milestones, and Timelines.** Describe strategies, methods, and milestones aligned with project phases to maximize benefit; minimize negative impacts; measure, track, and report impacts; and fill information gaps. Describe accountability, feedback, and transparency mechanisms (e.g., Workforce and Community Agreements and public access to project data).
- **Addressing barriers.** Describe potential barriers to realizing benefits and minimizing negative impacts and plans for mitigating those barriers.
- **Resource Summary.** Describe resources dedicated to implementing the plan including staff with relevant expertise, facilities, and budget. This could include an indication of how DOE funding would support resources for Justice40 activities.

#### 5.6.2.4 Community Partnership Documentation

|       |                                                                           |
|-------|---------------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_Partner_Doc |
|-------|---------------------------------------------------------------------------|

In support of the Community Benefits Plan, applicants may submit letters, Memoranda of Understanding, or other similar agreements from partnering tribes, labor unions, and/or community entities specifically describing the nature of existing or planned partnerships. If the applicant intends to enter into a Workforce and Community Agreement, please include letters from proposed partners.

<sup>4</sup> Benefits may include direct or indirect investments or positive outcomes that contribute to DOE Justice40 policy priorities in disadvantaged communities: decreased energy burden; decreased environmental exposure and burdens; increased access to low-cost capital; increased job creation and training; increased clean energy enterprise creation and contracting; increased energy democracy and community ownership; increased parity in clean energy access and adoption; and increased energy resilience.

<sup>5</sup> Negative impacts may include ecological (e.g., effects on natural resources and on components, structures, and functioning of ecosystems), aesthetic, historic, cultural, economic, social, or health impacts.

### 5.6.2.5 Resumes

|       |                                                                       |
|-------|-----------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_Resumes |
|-------|-----------------------------------------------------------------------|

A resume must be provided for all senior and key personnel. A resume provides information that can be used by reviewers to evaluate the individual's relevant skills and experience of the personnel. Resumes may be up to two pages in length.

### 5.6.2.6 Letters of Commitment

|       |                                                                    |
|-------|--------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_LOCs |
|-------|--------------------------------------------------------------------|

Submit letters of commitment from all subrecipient and third-party cost share providers. If applicable, the letter must state that the third-party cost share provider 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 one page.

For Energy Partnerships and Offtake Arrangements: The plan must provide letters of commitment for the project partners. If letters of commitment are not signed at the time of application, the plan must clearly identify the intended partners and outline clear and concise steps to engage with and secure the intended partnerships and identify when (what project phase) commitments must be finalized. If there is an intention to sell power, identify the general terms of the power purchase agreement, and when these agreements must be finalized. The applicant must also provide letters of commitment or similar from the rural or remote area(s) identified. The letters of commitment should be submitted as a separate attachment through OCED eXCHANGE.

### 5.6.2.7 Budget and Budget Justification

|         |                                                                                                                                                           |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Excel) | <b>File Naming Convention:</b><br>ControlNumber_LeadOrganization_Budget_Justification<br>ControlNumber_LeadOrganization_Subrecipient_Budget_Justification |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|

The Budget and Budget Justification must include the Budget Justification Workbook, Subrecipient budget justification (if applicable), and Contract budget justification (if applicable).

#### Budget Information

Applicants must provide their Budget Information in a form available on OCED eXCHANGE at <https://OCED-exchange.energy.gov/>. Applicants must complete each tab of this "Budget Justification Workbook" for the project, including all work to be performed by the prime recipient and its subrecipients and contractors.

Applicants must include costs associated with implementing the various BIL-specific requirements (e.g., Buy America requirements for infrastructure projects, Davis-Bacon, reporting, oversight) and the Community Benefits Plan, and with required annual audits, and with incurred cost proposals in their proposed budget documents. Such costs may be reimbursed as a direct or indirect cost.

#### 5.6.2.8 Summary Slide

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| (MS Power Point) | <b>File Naming Convention:</b> ControlNumber_LeadOrganization_Slide |
|------------------|---------------------------------------------------------------------|

Applicants must provide a single slide summarizing the proposed project. The Summary Slide template must include the following information:

- A technology summary.
- A description of the energy improvement in a rural or remote area of the United States.
- 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.
- Total project costs, including DOE funds and proposed applicant cost share.

#### 5.6.2.9 Verification of Special Cost Share Waiver Eligibility

|       |                                                                             |
|-------|-----------------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b> ControlNumber_Special_Cost_Share_Eligibility |
|-------|-----------------------------------------------------------------------------|

If seeking reduced cost share based on the Special Cost Share Waiver for this FOA, please include documentation verifying status of the prime recipient as an eligible entity type (see details in [Section 4.2](#)).

#### 5.6.2.10 Transparency of Foreign Connections

|       |                                                                                     |
|-------|-------------------------------------------------------------------------------------|
| (PDF) | <b>File Naming Convention:</b><br>ControlNumber_LeadOrganization_TransparencyFC.pdf |
|-------|-------------------------------------------------------------------------------------|

Applicants must identify the following as they relate to the proposed recipient and subrecipients:

1. The identity of all owners, Principal Investigator/Lead Project Manager, and senior/key personnel, at the recipient and subrecipient level, 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).
2. 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.

3. 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.
4. Percentage, if any, that the proposed recipient or subrecipient has foreign ownership or control.
5. Percentage, if any, that the proposed recipient or subrecipient is wholly or partially owned by an entity in a foreign country of risk.
6. The 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.
7. Any technology licensing or intellectual property sales to a foreign country of risk, during the 5-year period preceding submission of the proposal.
8. Any foreign business entity, offshore entity, or entity outside the United States related to the proposed recipient or subrecipient.

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

#### 5.6.2.11 Potentially Duplicative Federal Funding

|       |                                         |
|-------|-----------------------------------------|
| (PDF) | ControlNumber_LeadOrganization_PDFN.pdf |
|-------|-----------------------------------------|

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 under 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.

If a recipient or project team member receives any other award of federal funds for activities that potentially overlap with the activities funded under 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.

#### 5.6.2.12 Disclosure of Lobbying Activities

|       |                                        |
|-------|----------------------------------------|
| (PDF) | ControlNumber_LeadOrganization_LLL.pdf |
|-------|----------------------------------------|

Prime recipients and subrecipients may not use any federal funds to influence or attempt to influence, directly or indirectly, congressional action in connection with awarding, extending, or modifying any federal contract, grant, loan, or cooperative agreement. Recipients and subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (<https://www.grants.gov/web/grants/forms/sf-424-individual-family.html>).

## 6.0 Application Review Information

### 6.1 Technical Review Criteria

#### 6.1.1 Concept Papers

Concept Papers are evaluated based on consideration of the following factors. All sub-criteria are of equal weight. To be deemed eligible, the applicant must demonstrate clearly defined activities to improve energy in rural or remote areas of the United States. The applicant must generally identify the types of activities and clearly define the remote or rural area that will benefit from these activities, using U.S. Census Bureau data or other (legal) boundary. [Section 4.0](#) has provided more detail on these definitions and should be reviewed.

#### **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 significant energy cost, resilience, or reliability challenges facing the rural or remote area(s) targeted by the proposed project, as well as the applicability of this challenge to other similar rural or remote communities in the region.
- The applicant clearly describes the proposed scope of the demonstration project including the key technologies and systems, total cost of the project, and how the proposed project will improve or overcome one or more of the energy challenges identified for the rural or remote area(s) targeted by the proposed project, and how similar solutions could be applicable to other similar communities in the region.

- The applicant clearly describes how the project can help mitigate environmental impacts of existing generation.
- The applicant has identified a preliminary project development plan and timeline, including a finance plan, any key risks, challenges, and possible mitigation strategies, and has shown the impact of DOE funding. Applicants should provide measures for improving resilience, safety, reliability, and availability of energy and environmental protection from adverse impacts of energy generation.
- The applicant and proposed team have the qualifications, experience, capabilities, and other resources necessary to design, develop, build, and operate the proposed project.
- A description of strategies to ensure meaningful community and labor engagement; quality jobs and workforce development; EEJ and the Justice40 Initiative; and diversity, equity, inclusion, and accessibility—including methods to ensure accountability.

## 6.1.2 Applications

Applications will be evaluated against the technical review criteria shown below:

### **Criterion 1: Technical Merit, Innovation, and Impact (30%)**

This criterion involves consideration of the following factors:

- Extent to which the application specifically and convincingly demonstrates how the proposed project will meet the FOA technical objectives.
- The degree to which the proposed project reduces the emissions of greenhouse gas and criteria pollutants across the full life cycle that result from the generation, transmission, and/or distribution of energy to the targeted rural or remote area(s) as compared to today's baseline.
- Extent to which the proposed technology or technologies are described in sufficient detail to achieve commercial viability if the technology or technologies described are not already commercially available.
- Extent to which the applicant demonstrates understanding of the key technical, construction, regulatory, permitting, safety and occupational health, scale-up and infrastructure integration risks involved in the proposed work, and the quality of the mitigation strategies to address them.

### **Criterion 2: Financial and Market Viability (20%)**

This criterion involves consideration of the following factors:

- The degree to which the proposed project reduces energy burden and/or energy costs for consumers in the targeted rural or remote area(s).
- The degree to which the application justifies the proposed project's economic viability, sustainability, and potential growth beyond DOE funding, including the potential for the proposed project type to be replicated in other rural or remote areas with similar needs.
- The degree to which the proposed project meets the required FOA financial and market objectives.
- The adequacy and justification of the proposed budget and spend plan covering both DOE funding and non-federal cost share.

- The availability, credibility, and risk/terms of non-federal cost share sources and funds necessary to meet ongoing cost share needs. This includes the ability to leverage DOE financial assistance funding from this FOA with federal, state, and local incentives as well as private financing, as well as incentives to serve rural or remote communities.
- The degree to which the applicant addresses each key participating organization's financial commitment to the proposed project including overall financial strength and financial capability to implement the proposed plan.

**Criterion 3: Workplan (15%)**

This criterion involves consideration of the following factors:

- The overall reasonableness of the Integrated Project Schedule based on the associated complexity of the proposal.
- The degree to which the proposed Workplan and critical path have been clearly and thoroughly described and thoughtfully considered.
- The degree to which the task descriptions are clear, detailed, timely, and reasonable, resulting in a high likelihood that the proposed Workplan will succeed in meeting the project goals.
- The strength and level of clarity in the definition of the project phases, metrics, Integrated Project Schedule, and Go/No-Go criteria.
- The strength of the deliverables as defined in the application, such that DOE and independent experts will be able to review key technical, financial, regulatory, permitting, and community benefit milestones at appropriate project Go/No Go Decision Points to mitigate project risk and enable the successful design, procurement, construction, and operation of the proposed project.

**Criterion 4: Management Team and Project Partners (15%)**

This criterion involves consideration of the following factors:

- The capability of the prime recipient, the proposed team, and key personnel to manage and address all aspects of the proposed work with a high probability of success.
- The qualifications and relevant experience, including number of years, demonstrated safety performance history, occupational health history, and specific project experience, of the key project participants in performing similar projects and the allocation of responsibility commensurate with this experience.

**Criterion 5: Community Benefits Plan (20%)**

This criterion involves consideration of the following factors:

**Community and Labor Engagement**

- Extent to which the project demonstrates a clear and appropriately robust plan to meaningfully engage local stakeholders, including labor unions, community-based organizations that support or work with disadvantaged communities and/or underserved and overburdened groups, and tribes, in a manner that can impact project decisions, for example through the use of Workforce and Community Agreements.
- Extent to which impacted communities and workforce organizations including labor unions are appropriately included as core partners in the project and/or affirm support.

### Job Quality and Workforce Continuity

- Extent to which the Community Benefits Plan demonstrates that the jobs supported by the proposed project will be quality jobs and provides robust and credible plan to attract, train, and retain skilled local workers (e.g., through a Workforce and Community Agreements; pledges to remain neutral in the face of an organizing effort; commitments to wages above prevailing wage requirements, benefits, or other worker support) extending beyond the award period of performance.
- Extent to which the Community Benefits Plan demonstrates plans to invest in workforce education and training for local workers, support workers' skill acquisition and opportunities for advancement, and utilize an appropriately credentialed workforce.

### 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.
- 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.

### Justice40 Initiative

- Extent to which the Community Benefits Plan identifies specific and measurable project benefits, how the benefits will flow, and how negative impacts would be mitigated—and specifically describes these impacts on disadvantaged communities; 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.

## **6.2 Other Selection Factors**

### **6.2.1 Program Policy Factors**

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

- The degree to which the proposed project exhibits technological diversity when compared to the existing DOE project portfolio and other projects selected from the subject FOA.
- The degree to which the proposed project exhibits a diversity of regional solutions when compared to the existing DOE project portfolio and other projects selected from the subject FOA.

- The degree to which the proposed project supports disadvantaged communities, communities with a high energy burden, or communities with an urgent energy challenge.
- The degree in which the communities are reasonably determined to be rural or remote.
- The degree to which the proposed project, including proposed cost share, optimizes the use of available DOE funding to achieve programmatic objectives.
- The degree to which the proposed project is likely to lead to increased high-quality employment in rural and remote communities.
- 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 incorporates applicant or team members from Minority Serving Institutions (e.g., Historically Black Colleges and Universities (HBCUs)/Other Minority Serving Institutions); and partnerships with Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or tribal nations.
- The degree to which the proposed project incorporates some form of community and/or tribal ownership.
- The degree to which the proposed project collectively represents diverse types and sizes of applicant organizations.
- The degree to which the project may produce additional benefits to communities, such as drinking water production or use of waste heat for home heating.

## 6.3 Evaluation and Selection Process

### 6.3.1 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 the program policy factors, in determining which applications to select.

### 6.3.2 Pre-Selection Interviews

As part of the evaluation and selection process, DOE may invite one or more applicants to participate in pre-selection interviews or pre-selection site visits. Pre-selection interviews are distinct from and more formal than pre-selection clarifications (See [Section 6.3.3](#)). The invited applicant(s) will meet with DOE representatives to provide clarification on the contents of the Applications and to provide DOE an opportunity to ask questions regarding the proposed project. The information provided by applicants to DOE through pre-selection interviews contributes to DOE's selection decisions. DOE will not reimburse applicants for travel and other expenses relating to the pre-selection interviews or site visits, nor will these costs be eligible for reimbursement as pre-award costs.

Any pre-selection interviews and site visits may also include discussions with affected stakeholders or communities potentially impacted to understand their concerns/risks.

### **6.3.3 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 response 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.

### **6.3.4 Recipient Integrity and Performance Matters**

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 information about the applicant that is in the designated integrity and performance system accessible through SAM (see 41 U.S.C. § 2313).

### **6.3.5 Selection**

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

## **6.4 Anticipated Notice of Selection and Award Negotiation Dates**

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

## **7.0 Award Administration Information**

### **7.1 Notifications**

#### **7.1.1 Concept Paper Notifications**

DOE will notify applicants of its determination to encourage or discourage the submission of an Application. DOE will post these notifications to OCED eXCHANGE. DOE may include general comments provided from reviewers on an applicant's Concept Paper in the encourage/discourage notifications.

Applicants may submit an Application even if they receive a notification discouraging them from doing so. By discouraging the submission of an 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 an Application that is unlikely to be selected for award negotiations.

#### **7.1.2 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 OCED eXCHANGE. The notification letter will inform the applicant whether or not its Application was selected for award negotiations. Alternatively, DOE may notify one or more applicants that a final selection determination on particular Applications will be made at a later date, subject to the availability of funds or other factors.

#### **7.1.3 Successful Applicants**

Receipt of a notification letter selecting an 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. Applicants do not receive an award until award negotiations are complete and the Grants and Agreements Officer executes the funding agreement, accessible by the prime recipient in FedConnect.

The award negotiation process will take approximately 60 days. Applicants must designate a primary and a backup point-of-contact in OCED eXCHANGE with whom DOE will communicate to conduct award negotiations. The applicant must be responsive during award negotiations by providing requested documentation, including Just-In-Time documentation (see [Appendix Section A.3.1](#)) 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.

### 7.1.4 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 Application for federal funding in the future. A notification letter stating the 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 Application for award negotiations.

### 7.1.5 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.

## 7.2 Award Conditions and Reporting

Recipients of an award made under this FOA must comply with requirements of all applicable federal, state, and local laws, regulations, DOE policy and guidance, instructions in this FOA, and the award terms and conditions. Recipients must require subrecipients' compliance with all applicable requirements. Reporting requirements are identified on the Federal Assistance Reporting Checklist, attached to the award agreement.

## 8.0 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 (Q&A) process as described below. Specifically, questions regarding this FOA must be submitted to: [ERAFOA1@hq.doe.gov](mailto:ERAFOA1@hq.doe.gov). Questions must be submitted not later than 3 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 OCED eXCHANGE at: <https://OCED-exchange.energy.gov>. **You must first select this specific FOA Number to view the questions and answers specific to this FOA.** OCED will attempt to respond to a question within 3 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 OCED eXCHANGE website should be submitted to: [OCED-ExchangeSupport@hq.doe.gov](mailto:OCED-ExchangeSupport@hq.doe.gov). Include FOA name and number in subject line.

## APPENDIX A – ADDITIONAL INFORMATION

### A.1 Guidance Document

Refer to the Guidance Document for this FOA available on OCED eXCHANGE under this FOA’s posting for the definition of used terms and additional information related to the requirements in this appendix, and additional post-application submission information.

### A.2 Funding Restrictions

#### A.2.1 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.

#### A.2.2 Pre-Award Costs

Applicants selected for award negotiations (selectees) must request prior written approval to charge pre-award costs. Pre-award costs cannot be incurred prior to the Selection Official signing the Selection Statement and Analysis.

Pre-award expenditures are made at the applicant’s risk. OCED is not obligated to reimburse costs as outlined in the Guidance Document.

#### A.2.3 Buy America Requirements for Infrastructure Projects

Pursuant to the Build America, Buy America Act (referred to here as “Buy America”) in Title IX of Division G of the BIL, federally assisted projects that involve infrastructure work, undertaken by applicable recipient types, require that:

- All iron, steel, and manufactured products used in the infrastructure work are produced in the United States; and
- All construction materials used in the infrastructure work 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 70912 of the BIL, and whether the infrastructure in question is publicly owned or serves a public function.

Applicants are strongly encouraged to assess 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.

For additional information on Buy America requirements, visit DOE's [Build America, Buy America](#) webpage.

#### **A.2.4 Davis-Bacon Act Requirements**

Projects awarded under this FOA will be funded under Division D of the BIL. Accordingly, per Section 41101 of the BIL, 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). There are weekly reporting requirements.

Recipients of funding under this FOA will also be required to undergo DBA compliance training and to maintain competency in DBA compliance. The Contracting Officer will notify the recipient of any DOE sponsored DBA compliance trainings. The Department of Labor 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 DBA 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>.

#### **A.2.5 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 Part 200](#) as amended and adopted by [2 CFR Part 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.

The Community Benefits Plan is DOE's approach to identify and mitigate social risks associated with project implementation. Risk assessment should include assessment of community opposition, potential labor disputes, availability of a skilled workforce, public and worker health and safety considerations, etc.

The applicant should consider that for large construction projects, DOE may require a Project Labor Agreement (PLA), an agreement between a private entity (or entities) and a labor organization (or organizations) representing individuals who will be working on a construction project. Assessment of applicability will be conducted on a case-by-case basis.

Further, as DOE invests in critical infrastructure and funds critical and emerging technology areas, DOE also considers possible vectors of undue foreign influence in evaluating risk. If high risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the award.

#### **A.2.6 Human Subjects**

No funding will be provided under this FOA for any activities involving human subjects.

#### **A.2.7 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 recipient must flow down this requirement to its subrecipients.

##### **2. Failure to Comply**

If the 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 recipient is responsible should any work be performed outside the United States, absent a waiver, regardless of whether the work is performed by the 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 B](#) lists the information that must be included in a request for a foreign work waiver.

### **A.2.8 Prohibition related to Foreign Government-Sponsored Talent Recruitment Programs**

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-sponsored 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.

### **A.2.9 Affirmative Action and Pay Transparency Requirements**

All federally assisted construction contracts exceeding \$10,000 annually will be subject to the requirements of [Executive Order 11246](#), as amended, Equal Employment Opportunity.

The Department of Labor's (DOL) Office of Federal Contractor Compliance Programs (OFCCP) uses a neutral process to schedule contractors for compliance evaluations. OFCCP's [Technical Assistance Guide](#) should be consulted to gain an understanding of the requirements and possible 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 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.

## **A.3 Other Submission Requirements**

### **A.3.1 Post Submission Materials and Just-In-Time Documents**

Some materials will be required as post submission materials that are due after the merit review is complete. The applicant will be notified on what documents and materials to submit, the format required and where and when to submit.

#### **A.3.1.1 Applicant Disclosure of Existing Work or Relationship with National Labs**

Applicant shall disclose pre-existing work or relationship with national lab(s) that is prior to this FOA's application and that is or may be relevant to the FOA application.

### **A.3.2 Administrative and National Policy Requirements**

To receive a federal award under this FOA, all applicants must follow applicable cross-cutting administrative and national policy requirements. The policies are requirements based on social, economic, or other objectives or considerations that may be attached to the expenditure of federal funds by award recipients, consortium participants, and contractors, in general, or may relate to the expenditure of federal funds for other specified activities.

- Clean Air Act
- Clean Water Act
- National Flood Insurance Act of 1968 and Flood Disaster Prevention Act of 1973 and EO 13690
- Title VI of the Civil Rights Act of 1964
- Section 504 of the Rehabilitation Act of 1973
- Age Discrimination Act of 1975 .

#### **A.3.2.1 Requirement to Report Potentially Duplicative Funding**

If a recipient or project team member receives any other award of federal funds for activities that potentially overlap with the activities funded under 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.

### **A.4 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 the 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 2021, which is available at: [Department of Energy Guide to Financial Assistance October 2021](#).

### **A.5 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 and non-disclosure acknowledgements (NDA) prior to reviewing an application. Non-federal personnel conducting administrative activities must sign an NDA.

### A.5.1 Treatment of Application Information

Applicants should not include business sensitive (e.g., commercial or financial information that is privileged or confidential), trade secrets, 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 business sensitive, trade secrets, proprietary, or otherwise confidential information, it is furnished to the federal government (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.

Applications, and other submissions containing confidential, proprietary, or privileged information 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 U.S. Government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose.

The cover sheet of the Application, and other submissions must be marked as follows and identify the specific pages containing trade secrets, confidential, proprietary, or privileged information:

**Notice of Restriction on Disclosure and Use of Data:**

Pages [list applicable pages] of this document may contain trade secrets, confidential, proprietary, or privileged 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 or loan agreement 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]

The header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains Trade Secrets, Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure." In addition, each line or paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

## A.6 Retention of Submissions

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

## A.7 Personally Identifiable Information

All information provided by the applicant must to the greatest extent possible exclude Personally Identifiable Information (PII), which is 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, or 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](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 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).

## A.8 Informational Webinar

DOE will conduct one or more informational webinars during the FOA process. It will be held after the initial FOA release but before the due date for Concept Papers.

Attendance is not mandatory and will not positively or negatively impact the overall review of any applicant submissions. As the webinar will be open to all applicants who wish to participate, applicants should refrain from asking questions or communicating information that would reveal confidential and/or proprietary information specific to their project. Specific dates for the webinar can be found on the cover page of the FOA.

## A.9 Teaming Partner List

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

Updates to the Teaming Partner List will be available in the OCED eXCHANGE website. The Teaming Partner List will be regularly updated to reflect new teaming partners who provide their organization's information.

**SUBMISSION INSTRUCTIONS:** Any organization that would like to be included on this list should submit the following information: Organization Name, Contact Name, Contact Address, Contact Email, Contact Phone, Organization Type, Area of Technical Expertise, Brief Description of Capabilities, and Area of Interest. Interested parties should email the information to [ERAFOA1@hq.doe.gov](mailto:ERAFOA1@hq.doe.gov) with the subject line “Teaming Partner Information.”

**DISCLAIMER:** By submitting a request to be included on the Teaming Partner List, the requesting organization consents to the publication of the above-referenced information. By facilitating the Teaming Partner List, DOE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations that are self-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.

## **A.10 Uniform Commercial Code 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, Uniform Commercial Code (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 Grants and Agreements 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 Grants and Agreements 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 Grants and Agreements Officer may direct.

## **A.11 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.

## **A.12 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.

## **A.13 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 normally retains unlimited rights in technical data produced under government financial assistance awards, including the right to distribute to the public. However, pursuant to special statutory authority, certain categories of data generated under DOE awards may be protected from public disclosure for up to five years after the data is generated (“Protected Data”). For awards permitting Protected Data, the protected data must be marked as set forth in the award’s intellectual property terms and conditions and a listing of unlimited rights data (i.e., non-protected data) must be inserted into the data clause in the award. In addition, invention disclosures may be protected from public disclosure for a reasonable time in order to allow for filing a patent application.

## **A.14 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.

## **A.15 Fraud, Waste, and Abuse**

The DOE Office of Inspector General (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>.

Recipients of DOE awards must be cognizant of the requirements of [2 CFR 200.113 Mandatory disclosures](#). See the Guidance Document for additional information.

## **A.16 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.

## **A.17 U.S. Manufacturing Commitments**

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.

See the Guidance Document for award terms, modification request or waiver, title to subject inventions, government rights in subject inventions, Determination of Exceptional Circumstances (DEC) and DOE Patent Waivers, and additional information.

## **A.18 Interim Conflicts of Interest Policy for Financial Assistance**

The recipient is subject to the requirements of the DOE interim Conflict of Interest Policy for Financial Assistance (COI Policy), and the recipient must certify that it is compliant with all the requirements in the DOE interim COI Policy. The recipient must flow down the requirements of the DOE interim COI Policy to any subrecipient non-federal entities. The DOE interim COI Policy can be found [here](#). See the Guidance Document for additional information.

## **APPENDIX B – WAIVER REQUESTS FOR FOREIGN ENTITY PARTICIPATION AND FOREIGN WORK**

### **Waiver for Foreign Entity Participation as Subrecipient**

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 an application to this FOA, but the 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 application for each proposed foreign subrecipient.

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.<sup>6</sup> 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 Application.

### **Waiver Criteria**

Foreign entities seeking to participate in a project 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 Provisions (see [Appendix Section A.17 U.S. Manufacturing Commitments](#), and the Guidance Document for this FOA available on OCED eXCHANGE under this FOA's posting for additional information); and
- e. The foreign entity will satisfy other conditions that may be deemed necessary by DOE to protect United States government interests.

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<sup>6</sup> See [Critical and Emerging Technologies List Update \(whitehouse.gov\)](#).

## **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 of 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(s) or foreign individual(s);
- c. The rationale for proposing that a foreign entity participate (must address the criteria above);
- d. A description of the project's anticipated contributions to the United States economy;
- e. A description of how the foreign entity's participation is essential to the project, including:
  - 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;
- 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 foreign work waiver request).

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 may be added to any agreement or subagreement to protect IP, mitigate risk, or other related purposes.
- DOE may require additional information before considering a waiver request.

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

## **Waiver for Performance of Work in the United States (Foreign Work Waiver)**

As set forth in [Appendix Section A.2.7](#), all work funded 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 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 of the United States (“foreign work”);
2. A description of the work proposed to be performed outside the United States;
3. An explanation of 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 country(ies) 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 (e.g., the entity seeking a waiver and the entity(ies) that will conduct the foreign work).

DOE may require additional information before considering a waiver request.

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

## APPENDIX C – LIST OF ACRONYMS

|       |                                                  |
|-------|--------------------------------------------------|
| BIL   | Bipartisan Infrastructure Law                    |
| CBP   | Community Benefits Plan                          |
| CEJST | Climate and Economic Justice Screening Tool      |
| CETs  | Critical and Emerging Technologies               |
| COI   | Conflict of Interest                             |
| DEC   | Determination of Exceptional Circumstances       |
| DEIA  | Diversity, Equity, Inclusion, and Accessibility  |
| DOE   | Department of Energy                             |
| DOL   | Department of Labor                              |
| ERA   | Energy Improvements in Rural or Remote Areas     |
| FFRDC | Federally Funded Research and Development Center |
| FOA   | Funding Opportunity Announcement                 |
| FOIA  | Freedom of Information Act                       |
| HBCUs | Historically Black Colleges and Universities     |
| LLC   | Limited Liability Company                        |
| MPIN  | Marketing Partner ID Number                      |
| NDA   | Non-Disclosure Acknowledgement                   |
| NEPA  | National Environmental Policy Act                |
| OCED  | Office of Clean Energy Demonstrations            |
| OFCCP | Office of Federal Contractor Compliance Programs |
| OIG   | Office of Inspector General                      |
| OMB   | Office of Management and Budget                  |
| OSHA  | Occupational Safety and Health Administration    |
| SAM   | System for Award Management                      |
| SOHP  | Safety and Occupational Health Plan              |
| UCC   | Uniform Commercial Code                          |
| UEI   | Unique Entity Identifier                         |
| WBS   | Work Breakdown Structure                         |