Energy Improvements in Rural or Remote Areas Application Guide

(updated 12/02/2024)

Guide purpose: This document provides an overview of the requirements, deadlines, categories, and application materials for the Department of Energy (DOE) Energy Improvements in Rural or Remote Areas grant opportunity (DE-FOA-0003428).

Grant goals: This grant program supports rural and remote communities with populations of 10,000 or fewer with building clean energy projects that benefit their communities. The goals of this program are to deliver measurable and sustained benefits to people who live in rural or remote areas, demonstrate effective rural or remote energy system approaches, and build clean energy knowledge, experience, capacity, and self-reliance in rural and remote parts of America.

Required concept papers due: February 27, 2025 at 5:00pm ET
Full applications due: August 28, 2025 at 5:00pm ET
Determination: Upon concept paper review, DOE will encourage/discourage a full application submission
Anticipated selection announcement: Spring 2026

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Introduction to DOE Energy Improvements in Rural or Remote Areas Grant Program

The Department of Energy (DOE) Energy Improvements in Rural or Remote Areas grant program provides approximately $400 million of federal funding to communities of 10,000 people or fewer to support rural and remote communities with building clean energy projects. These projects can provide a range of benefits including local energy independence, tax revenue, economic development and diversification, local jobs, and reduce environmental and health burdens.

The DOE Office of Clean Energy Demonstrations (OCED) is soliciting applications to build community capacity to plan, build, and operate clean energy systems and anticipates making approximately 20 to 50 awards. Each award period varies and can last up to 7 years.

Applicants must propose projects that support at least one of these eligible activities:

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

Projects fall into four categories: Open, dual use and co-location, smaller-scale community-centered, isolated microgrids & unelectrified buildings (see 'Topic Area Activities' below for more details).

Projects NOT of interest: Large transmission projects, single-campus projects, Electric Vehicles, projects solely focused on EV charging, or projects that only include weatherization.

Key Links and Resources

- Energy Improvements in Rural or Remote Areas main website
- Notice of Funding Opportunity
- Fact Sheet
- Up-to-date FAQs can be found under "Documents" Q&A Log on the NOFO page
- Informational webinar
- Contact DOE: ERA2024@hq.doe.gov

National Renewable Energy Laboratory (NREL) Free Technical Assistance

Apply for up to 8 hours of free technical assistance by Feb. 13, 2025. Additional TA will be available 2025 to support the development of applications. Possible topics include:

- Describing the technology and/or systems to be developed, construction activities, and infrastructure development
- Describing a preliminary development plan and timeline
- Detailing the qualifications, experience, and capabilities of proposed project team
- Developing the community benefits plan

TCTAC Resources

- The TCTAC can provide concept paper review and help navigating federal grants systems. We suggest reaching out to NREL for project development support.
- Fact Sheet
- Slide Deck

Non-technical Barriers to Adoption

Projects are encouraged to address at least one of these non-technical barriers.

- **Community perception**: Working with community members to choose appropriate technologies, locations, and ownership structures of clean energy projects in order to reduce concerns about land and water use conflict, economic development opportunities, and changes to community character.

- **Permitting & siting**: Rural and remote communities face challenges for deploying clean energy infrastructure because of policies that limit where new projects can go. Applicants can build local experience on these topics with communities, and plan for ecosystem-wide impacts.

- **Downstream value chain**: Ensuring that a clean energy project provides direct benefits such as reduced energy costs, increased clean energy reliability and access, improved environmental quality, or increased economic opportunities to the people who pay the financial, environmental, and social costs of that project.

Topic Area Activities

Table 1: Topic area summary

Topic Area	Topic Area Title	Minimum Amount of DOE Funding per Individual Award	Maximum Amount of DOE Funding per Individual Award	Cost Share from Applicant	Cost Share Eligible for Lower Amount
1	Open Category	$10M	$50M	50%	20%
2	Dual use and co-location	$10M	$50M	50%	20%
3	Smaller-scale community-centered	$2M	$10M	20%	5%
4	Isolated microgrids & unelectrified buildings	$2M	$10M	20%	5%

Topic Area 1 - Open Category

Projects selected under this topic area are intended to support clean energy infrastructure for many different project types that also address one or more of the adoption barriers mentioned.

Eligible planning activities under Topic Area 1, may include, but are not limited to:

(1) Installation of microgrids to provide power regulation or backup electricity to the grid.
(2) Siting or upgrading less than 30 miles of subtransmission or distribution lines (<69kV), grid stability and resilience with substation improvements, or other electrical infrastructure improvements (hardware or software).
(3) Use of biogas from agricultural waste, either from biogas capturing or biogas generation through anaerobic digestion, to fuel onsite equipment and/or for pipeline injection.
(4) Replacement of a non-clean backup energy generation system, such as a diesel generator, with a clean energy generation backup system and/or energy storage system, at a water treatment plant or pump station, or other critical facility.

(5) Replacement of fossil fuel–powered heating with heat pumps in community buildings or in a residential neighborhood.
(6) Upgrades to distribution systems to reduce outages and improve resilience.
(7) Installation of a geothermal heating and cooling system, including geothermal heat pumps, as part of a networked, community-scale geothermal system.

Topic Area 2 - Dual use and co-location

Projects in this category provide co-benefits beyond supplying energy and reducing pollution. These projects could address potential conflicts between clean energy and other land and water uses.

For agrivoltaic projects, dual use is defined as agricultural production, such as crop or livestock production that is underneath or adjacent to solar panels. Solar on barn rooftops is **not** considered dual use.

Examples of projects include, but are not limited to:

1) Deployment of small hydropower in existing conduits to generate recurring revenue that enables reinvestment in other community infrastructure.
2) Innovative siting of solar panels, such as on agricultural land (agrivoltaics) or over canals, to reduce local siting constraints, preserve undisturbed land where possible, and enable new ownership structures.
3) Distributed wind for farmers or farm groups.
4) Conduit hydro in irrigation systems.
5) Community geothermal heating and cooling systems.
6) Use of business structures that promote economic and electric system resilience, accessible and appropriate financing mechanisms, and/or best practices in community leadership, community ownership, capacity building, and engagement with rural and remote farmers, small businesses, communities, and electric utilities.

Topic Area 3 - Smaller-scale community-centered

These projects are smaller-scale clean energy projects that are initiated, driven, and/or broadly supported by residents of host communities. This includes technologies and project types that are similar to topic area 1: Solar, battery energy storage systems, wind, water power, geothermal, biomass/biofuels, microgrids, distribution, converting fossil fuel-powered equipment to electric, and repowering existing renewable energy infrastructure.

Project examples include:

1) Installation of a community-owned solar and battery project to reduce electricity cost and increase energy resilience.
2) Installation of a distributed wind, solar, and battery storage microgrid system to reduce electricity costs and increase energy resilience.
3) Installation of standalone microgrids in community-serving locations to ensure continuation of services during natural disasters.

Topic Area 4: Isolated microgrids and unelectrified buildings

This topic area supports two main project types

1) Isolated microgrids that are usually located in ultra-remote areas and served primarily by diesel generators
2) Unelectrified homes or community buildings not served by an electrical grid

Project should address one or more relevant adoption barriers.

Example Projects

1) Installation of a distributed wind plus battery storage and/or solar plus battery storage microgrid to reduce electricity cost and increase energy resilience through reducing demand on diesel in a remote community.
2) Connecting homes to the grid previously not served by local power lines.

Cost-share requirement and potential reduction request

Applicants must project a certain percentage of the total project costs to meet the cost share requirement, as described in Table 1: Topic area summary. To request a reduced cost share, an applicant must provide verification that they are an entity identified as eligible for the reduced cost share. For all topic areas, Indian Tribe, state and local government, institution of higher education, and nonprofit primary applicants are eligible for the lower cost share amount.

Cost share may be provided in the form of cash or cash equivalents, or in-kind contributions. It must come from non-Federal sources. Cost share may come from project recipients, subrecipients, state or local governments, or other third-party financing. Generally, realized tax credits may be used as cost share. In general, deferred or avoided costs may not be used as cost share. Applicants may not leverage Federal financing, such as DOE Loan Guarantees, to provide the required cost share or to otherwise support the same scope that is proposed under the Energy Improvements in Rural or Remote Areas program.

Funding Priorities

Communities and populations with at least one of these characteristics (page 13-14 of NOFO):

- Disadvantaged communities as defined by the Justice40 Initiative and identified in the Climate and Economic Justice Screening Tool
- Energy communities defined by the Inflation Reduction Act or are likely to become energy communities in the near future.
    - Brownfield sites, as defined in CERCLA
    - Census tracts or adjacent tracts in which a coal mine has closed after 1999; or in which a coal-fired electric generating unit has been retired after 2009
    - A community where a certain percentage of employment or local tax revenues are related to coal, oil, or natural gas; and has an above-average unemployment rate
- Low-income communities and populations
- Communities or populations, including workers, that have been underrepresented (e.g., have faced barriers, underinvestment, lack of opportunity)
- High energy burden communities and populations
- Frontline communities and populations, i.e., those hit first and worst by climate change

Teams that include members who are:

- Highly familiar with local community priorities and dynamics
- Members of (or who represent) priority communities or populations
- Part of labor unions or other local workforce development organizations
- Credible with and trusted by community members
- Residents of proposed host community(ies)
- Experienced in project development with proposed technologies in similar geographic and cultural contexts
- Capable of efficiently and effectively administering government funding
- Projects that demonstrate learnings which are applicable to other rural or remote communities across the United States and territories

DOE Energy Improvements in Rural or Remote Areas Concept Paper Checklist + Requirements

Deadline: February 27, 2025 at 5:00pm ET
Grant period: Up to 7 years
Funding Opportunity Announcement (FOA) here

TASKS	EXAMPLE DUE DATE
Register for SAM.gov, OCED eXCHANGE, FedConnect, and Grants.gov	Monday, 12/16/2024
Create concept paper outline + request NREL technical assistance	Monday, 01/06/2025
Complete first draft + submit for technical assistance feedback	Monday, 02/03/2025
Incorporate edits	Monday, 02/10/2025
All final documents emailed to proposal submitter for final review and assembly	Monday, 02/24/2025
Submit application by	Wednesday, 02/27/2025 5:00pm ET

Formatting requirements and reminders:

- Each document must be submitted in Adobe PDF format unless otherwise stated (e.g., budget in Excel)
- All pages must be formatted to fit on 8.5 x 11-inch paper with margins not less than one inch on all sides.
- 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).
- Page numbers must be included in the footer of every page
- Must not exceed the specified page limit for each section, only the authorized number of pages will be reviewed
- All documents must be written in English
- 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.
- The Control Number assigned by IE-Exchange during the registration process must be prominently displayed on the upper right corner of the header of every page along with the file name. Page numbers must be included in the footer of every page.
- The maximum file size is 50 megabytes (MB), any size larger will not be allowed to upload to OCED eXCHANGE
    - If your file is larger than 50 MB but under the page limit you will need to break the file into parts

Pre-Application Steps

1. Register for SAM.gov (this can take several weeks).
This includes having a Unique Entity Identifier (UEI). If you already have an account, log in to make sure everything is up to date. If you need help applying, see a webinar put together by our partner, Environmental Protection Network, or sign up for their office hours.

2. OCED eXCHANGE (takes up to 48-72 hours)
You must register with OCED eXCHANGE. A Login.gov or ID.me account is necessary to register.

3. FedConnect (takes up to 48-72 hours)
You must register with FedConnect. Only individuals who are designated as Points of Contact in SAM.gov can create a new company account.

4. Grants.gov registration (Can take several days)
You must have an active Grants.gov registration. Doing so requires a Login.gov registration as well. See this Quick Start Guide for help registering.

Concept Paper Instructions

Please note: Only applicants who have submitted an eligible concept paper will be eligible to submit an application.

- Applicants can still submit an application even if they receive a notification discouraging them. By discouraging an application, the DOE is conveying a lack of programmatic interest in the proposed project. The purpose of the concept paper is to save applicants the considerable time and expense of preparing an application that is unlikely to be selected for award negotiations.

Concept Paper Cover Page(s): Applicants are encouraged to use the cover page format shown at the end Step 2 on page 47 of the NOFO. The cover page must include all of the following:

- The project title.
- Topic area team is applying for.
- A short sentence describing the key attributes of the project (technology type, size, and location). DOE and reviewers may use this as a standalone summary of the application.
- The project team, including:
    - Name of the recipient (i.e., applicant),
    - Entity type and an explanation of eligibility as described in Step 1,
    - Technical and business points of contact, and
    - Names of all team members and their organizations.

- Clearly identify the location and population of the communities identified for energy improvements (as defined by the Census Bureau or other legal boundary). Provide a link(s) to Census Bureau figures confirming the populations of the community(ies) where the project is located and that will directly benefit from the project and state the type of area benefitted (e.g., city, town, borough, parish, census county division, or census-designated place). The Applicant Eligibility Guidance located on the Apply for Funding Opportunities page provides more information on how to use the census website.

- Provide up to 20 census tracts and 9-digit zip codes (i.e., zip+4 code) of project location(s) and benefiting community(ies).

- The total project cost, proposed Federal funding amount, cost share from applicant, and period of performance.

- Any statements regarding confidentiality as described in the Treatment of Application Information section (Page 54 of the NOFO).

In the remainder of the concept paper (**seven pages total**, including the cover page(s)), applicants must address the following questions in each section. You do not need to respond to each question separately, but you should address each of the prompts within each section.

Technical Solution:

- What are your community's current energy challenges and priorities? Are there any particular challenges or barriers that are faced by members of priority communities and populations as described in the Funding priorities section?

- Tell us about your proposed project, including project and technology type, size, and location.

- Why is this technology or project type a good fit for your community?

- Which barriers to adoption will this project address, and how? (See "Barriers to adoption on page 12 of the NOFO).

Business Case:

- How do you expect energy costs and energy burden to change for community members because of this project?

- What local economic impacts do you anticipate from this project, including e.g., local tax revenue, workforce development, and other economic development?

- Why is this project worth the cost for you?

- How do you plan to provide the cost share for this project?

- How do you plan to pay for the project's operations and maintenance?

Team:

- Tell us about your team and their experience, including partners involved in the project, their role(s) in the project, and how you have worked together and plan to work together for this project and in the future.
- How does your team represent the priority communities and populations as described in the Funding priorities section? (Page 13 of the NOFO).

Project Plan:

- Tell us about your approach to plan and complete this project.
- How do you plan to check on progress and adjust your approach along the way?
- What are the top 1–5 risks for completing this project, and how do you plan to mitigate those risks?
- What is your plan to ensure you have enough qualified people to plan, develop, build, and operate the project?

Community and Workers:

- How will this project benefit your community and local workers, including any priority communities and populations as described in the Funding priorities section?
- How have you worked with, and how will you continue to work with, community members and local workers on this project, and how have you included or will you include them as part of the decision-making process?
- What are the potential negative impacts of this project and how do you plan to mitigate them?
- The concept paper does not require a Community Benefits Plan, but the full application will. See About Community Benefits Plans for helpful examples of what to include in a community benefits plan. Please note that the Office of Clean Energy Demonstrations does not use the DOE Community Benefits Plan template.

Concept Paper Scoring

Concept Paper Criterion: Overall Funding Opportunity Responsiveness and Viability of the Project

This criterion involves consideration of the following factors. Note that percentages listed below are approximate weights for each bullet:

- (25%) Applicant clearly describes how the proposed project aligns with the goals of this funding opportunity; is suited to the needs of the community; and is likely to function as designed.
- (20%) Applicant proposes a budget which is reasonable for the project and community.
- (20%) Applicant and proposed team have the qualifications, experience, capabilities, and other resources necessary to design, develop, build, and operate the proposed project.
- (15%) Applicant proposes a preliminary project plan and timeline that is likely to result in successful operation of the project within five years.
- (20%) Applicant has and will meaningfully collaborate with the local community, labor organizations, tribal entities, and other stakeholders as relevant for the local context. The project will provide meaningful and relevant benefits to local residents.

Full Application Process Overview

Once they review concept papers, the Department of Energy will make a determination of whether to encourage or discourage full applications. An applicant may still apply, but are unlikely to score well, given the funding priorities.

Full applications will require significantly more work than the concept papers. Below is a summary of what will be required for the application. The guidelines begin on page 31 of the Notice of Funding Opportunity. The National Renewable Energy Laboratory (NREL) will have additional technical assistance available to help applicants with the full application. Request NREL assistance here.

Full Application

- Technical Volume Content (20 pages)
  - Cover Page
  - Project Overview
  - Technical Approach
  - Financial and Market Viability
  - Management and Organization
  - Workplan
- Community Benefits Plan (5 pages)
- Community Partnership Documentation
- Resumes
- Letters of Commitment (2 pages per)
- Budget
- Compliance Documents

Application Contents and Format

Component and Subcomponent	File Naming Convention	Page Limit	Format
Concept Paper	ControlNumber_LeadOrganization_ConceptPaper.pdf	7	PDF
Application			
Application For Federal Assistance	Standard Form SF-424 ControlNumber_LeadOrganization_App424.pdf	N/A	PDF
Technical Volume	ControlNumber_LeadOrganization_TechVol.pdf	20	PDF
Community Benefits Plan	ControlNumber_LeadOrganization_CBP.pdf	5	PDF
Community Partnership Documentation	ControlNumber_LeadOrganization_Partner_Doc.pdf	2	PDF
Impacting Indian Tribe Documentation	ControlNumber_LeadOrganization_IMT_Doc.pdf	N/A	PDF
Resumes or Equivalent	ControlNumber_LeadOrganization_Resumes.pdf	2	PDF
Letters of Commitment	ControlNumber_LeadOrganization_LOCs.pdf	2 per letter	PDF
Budget	Standard Form SF-424-A ControlNumber_LeadOrganization_App424A.pdf	N/A	PDF
Budget Justification Workbook	ControlNumber_LeadOrganization_Budget_Justification.xlsx	N/A	Excel
Subrecipient Justification Workbook	ControlNumber_LeadOrganization_Subrecipient_Budget_Justification.xlsx	N/A	Excel
Transparency of Foreign Connections	ControlNumber_LeadOrganization_TransparencyFC.pdf	N/A	PDF
Potentially Duplicative Funding	ControlNumber_LeadOrganization_DupFund.pdf	N/A	PDF
Verification of Cost Share Eligibility	ControlNumber_Cost_Share_Eligibility.pdf	N/A	PDF