

Community Geothermal Heating and Cooling Design and Deployment

communitygeo@ee.doe.gov

FOA Webinar DE-FOA-0002632 July 26, 2022

- NO NEW INFORMATION OTHER THAN THAT PROVIDED IN THE FOA WILL BE DISCUSSED IN THE WEBINAR.
- This webinar was pre-recorded prior to being published on the EERE Exchange website.
- There are no particular advantages or disadvantages to the application evaluation process with respect to participating on the webinar today.
- Your participation is completely <u>voluntary</u>.



Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE-FOA-0002632 ("FOA") and adhere to the stated submission requirements.
- This presentation summarizes the contents of the FOA. If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document and applicants should rely on the FOA language and seek clarification by submitting a question to communitygeo@ee.doe.gov.



DE-FOA-0002632

Community Geothermal Heating and Cooling Design and Deployment

Anticipated Schedule:

FOA Issue Date:	July 12, 2022
Submission Deadline for Full Applications:	October 11, 2022, 5:00 PM ET
Submission Deadline for Replies to Reviewer Comments:	December 7, 2022, 5:00 PM ET
Expected Date for EERE Selection Notifications:	March 2023
Expected Timeframe for Award Negotiations:	Spring 2023



Agenda

- 1) FOA Description
- 2) Sub-topic Areas
- 3) Award Information
- 4) Statement of Substantial Involvement
- 5) Cost Sharing
- 6) FOA Timeline
- 7) Full Applications
- 8) Merit Review and Selection Process
- 9) Registration Requirements
- 10) Additional Cost Sharing Information



FOA Description

The overall FOA objective is to support the formation of U.S. community coalitions that will develop, design, and install community geothermal heating and cooling systems that supply at least 25% of the overall community heating or heating and cooling demand in communities where current fuel use to heat or heat and cool homes and/or businesses results in increased greenhouse gas emissions.

Additional FOA objectives include:

- Supporting U.S. communities by reducing energy costs brought on by fossil fuel dependence
- Increasing U.S. community energy system resilience for secure and reliable heating and cooling
- Reducing environmental pollutants
- Supporting U.S. communities in developing a strategy to train and employ community members in system design and trades necessary to build, operate, and maintain community geothermal systems.



FOA Description





Energy Efficiency & Renewable Energy

Teaming Partner List

- To assist coalition formation, GTO is providing a Teaming Partner List at: https://www.energy.gov/eere/geothermal/communitygeothermal-design-and-deployment-teaming-list.
- Parties interested in being included on this list should submit the following information (preferably in Excel format) to: CommunityGeo@ee.doe.gov:
 - Subject line "Teaming Partner Information":
 - (1) Organization Name;
 - (2) Contact Name;
 - (3) Contact Information (phone, email, address);
 - (4) Organization Type;
 - (5) Website Contact-Us URL, Social Media URL, or Social Media Handles;
 - (6) Area of Technical Expertise;
 - (7) Brief Description of Capabilities (1-4 sentences);
 - (8) Brief Description of Needs in a Teaming Partner.



Teaming Partner List

- Disclaimer: By submitting a request to be included on the Teaming Partner List, the requesting organization consents to the publication of its contact information. By enabling and publishing the Teaming Partner List, EERE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations that are identifying themselves for placement on this Teaming Partner List. EERE will not pay for the provision of any information, nor will it compensate any applicants or requesting organizations for the development of such information.
- EERE is not using the Teaming Partner List to identify potential applicants and will not connect any partners. The list is provided solely for the use of interested parties.



To ensure diversity of community applications and maximize the range of test beds and case studies achieved through the FOA, coalitions should apply under one of the following three geographic sub-topic areas:

- 1) Rural Communities
- 2) Remote/Island/Islanded Communities
- 3) Urban/Suburban Communities

All work under EERE funding agreements must be performed in the United States.



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 Section I.A. and I.B. of the FOA.
- Applications for proposed technologies that are not based on sound scientific principles (e.g., violates the laws of thermodynamics).
- Applications that include small-scale designs such as those for one or several individual residences or one commercial business; designs for systems that supply less than 25% of the overall community heating or heating and cooling demand; and systems that do not include geothermal heating or cooling.
- Applications for community geothermal heating and cooling systems located outside of the United States of America.



Total Amount to be Awarded	Approximately \$3,000,000*
Average Award Amount	EERE anticipates making awards that range from \$300,000 to \$750,000.
Types of Funding Agreements	 Cooperative Agreements Funding Agreements with Federally Funded Research and Development Center (FFRDCs)
Period of Performance	12 months
Cost Share Requirement	0% of Total Project Costs

*Subject to the availability of appropriated funds



Award Information – Budget Period 2

Upon completion of the down-selection process, EERE will select which projects will receive federal funding beyond Budget Period 1.

Total Amount to be Awarded	Approximately \$10,000,000*	
Average Award Amount	EERE anticipates making awards that range from \$2,500,000 to \$10,000,000.	
Types of Funding Agreements	 Cooperative Agreements Funding Agreements with Federally Funded Research and Development Center (FFRDCs) 	
Period of Performance	30 months	
Cost Share Requirement	10% of Total Project Costs	

*Subject to the availability of appropriated funds



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

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



For **Budget Period** <u>1</u> of projects funded under this award, cost sharing is not required.

For **Budget Period** <u>2</u> of projects funded under this award:

- The Assistant Secretary for EERE has issued a Cost Share Reduction determination pursuant to Section 988(c)(2) of the Energy Policy Act of 2005 that is applicable to entities applying under this FOA. Specifically, recipient cost share requirement for demonstration projects is reduced from 50% to 10%.
- The cost share must be at least 10% of the total allowable costs for demonstration projects (i.e., the sum of the government share, including FFRDC costs if applicable, 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. (See 2 CFR 200.306 and 2 CFR 910.130 for the applicable cost sharing requirements.)





EERE anticipates making awards by Spring 2023



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The Full Application includes:

- **Project Narrative**: Project overview, technical concepts, coalition qualifications, etc.
- Statement of Project Objectives (SOPO): Applicants are required to complete a SOPO but encouraged to use the provided Community Geothermal Heating and Cooling Design and Deployment SOPO example.
- **SF-424 Application for Federal Assistance:** Formal application signed by the authorized representative of the applicant.
- SF-424A Budget & Budget Justification: A detailed budget and spend plan for the project.
- Summary/Abstract for Public Release
- Administrative Documents: Disclosure of Lobbying Activities, Diversity, Equity and Inclusion Plan, Current and Pending Support, etc.

Renewable Energy

Full Applications: Project Narrative Content

Project Narrative: Project Overview, Technical Concepts, Coalition Qualification etc.

Content of Project Narrative	Suggested % of Project Narrative
Cover Page	
Project Overview	10%
Preliminary Technical and Economic Concept Description	30%
Workplan	20%
Coalition Qualifications and Resources	40%



Full Application Eligibility Requirements

- Applicants must submit a Full Application by October 11, 2022
- Full Applications are eligible for review if:
 - The Applicant is an eligible entity Section III.A of FOA;
 - The Cost Share requirement is satisfied Section III.B of FOA;
 - $\circ~$ The Full Application is compliant Section III.C of FOA; and
 - $\circ~$ The proposed project is responsive to the FOA Section III.D of FOA
 - An entity may only submit one Full Application to this FOA. The Full Application must address no more than one geographic subtopic area identified in Section I.B. of the FOA. If an entity submits more than one Full Application, EERE will request a determination from the applicant's authorizing representative as to which application should be reviewed.
 - The Full Application meets any other eligibility requirements listed in Section III of the FOA.



Who is Eligible to Apply?

Eligible applicants for this FOA include:

- 1. U.S. citizens and lawful U.S. permanent residents
- 2. For-profit entities
- 3. Educational institutions
- 4. Nonprofits
- 5. State, local, and tribal government entities
- 6. DOE/NNSA FFRDCs (Federally Funded Research and Development Centers)

For more detail about eligible applicants, please see Section III.A of the FOA

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

Prime Recipients must be in must be incorporated (or otherwise formed) under the laws of a State or territory of the United States and have a physical location for business operations in the United States. See Section III.A.iii for requirements applicable to foreign entities applying under this FOA.



Energy Efficiency & Renewable Energy An entity may only submit one Full Application to this FOA. The Full Application must address no more than one geographic sub-topic area identified in Section I.B. of the FOA. If an entity submits more than one Full Application, EERE will request a determination from the applicant's authorizing representative as to which application should be reviewed.

Any other submissions received listing the same entity as the applicant will not be eligible for further consideration. This limitation does not prohibit an applicant from collaborating on other applications (e.g., as a potential subrecipient or partner) so long as the entity is only listed as the applicant on one Full Application submitted under this FOA.



Merit Review and Selection Process (Full Applications)

- The Merit Review process consists of multiple phases that each include an eligibility review and a thorough technical review.
- Rigorous technical reviews are conducted by reviewers that are experts in the subject matter of the FOA.
- Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors, and the amount of available funds in arriving at selections for this FOA.



Technical Merit Review Criteria

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

- Criterion 1: Technical Merit, Innovation, and Impact (20%)
- Criterion 2: Project Planning, Community Research, and Data Availability (20%)
- Criterion 3: Coalition and Resources (40%)
- Criterion 4: Diversity, Equity, and Inclusion (20%)



Program Policy Factors

The Selection Official may consider the following program policy factors in making his/her selection decisions:

- The degree to which communities that rely on fossil fuels for heating and cooling can, by deploying community geothermal heating and cooling, reduce their long-term energy costs and improve the environmental quality in their community or region.
- 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 optimizes the use of available EERE funding to achieve programmatic objectives.
- The demonstrated expertise and ability of one or more coalition partners to accelerate commercialization and overcome key market barriers.
- The degree to which the proposed project is likely to lead to increased employment and manufacturing in the United States.
- The degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty.
- The degree to which the proposed project, or group of projects, represent a desired geographic distribution.
- The degree to which the proposed project incorporates diversity, equity, and inclusion elements, including but not limited to coalition members from Minority Serving Institutions (e.g. Historically Black Colleges and Universities (HBCUs)/Other Minority Institutions), Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or members within underserved communities.



Energy Efficiency & Renewable Energy

- EERE provides applicants with reviewer comments.
- Applicants are <u>not</u> required to submit a reply—it's optional.
- To be considered by EERE, a reply must be submitted by December 7, 2022, 5:00 PM and submitted through EERE Exchange.
- Content and form requirements:

Section	Page Limit	Description
Text	2 pages max	Applicants may respond to one or more reviewer comments or supplement their Full Application.
Optional	1 page max	Applicants may use this page however they wish; text, graphs, charts, or other data to respond to reviewer comments or supplement their Full Application are acceptable.



Registration Requirements

- To apply to this FOA, Applicants must register with and submit application materials through EERE Exchange: https://eere-Exchange.energy.gov/
- Obtain a Control Number at least 24 hours before the first submission deadline
- Although not required to submit an Application, the following registrations must be complete to receive an award under this FOA:

Registration Requirement	Website
UEI and SAM	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

• After August 5, 2022, applicants will be required to have a login.gov account to access EERE Exchange. The email address in Exchange must match the Login.gov account



Means of Submission

- Full Applications and Replies to Reviewer Comments must be submitted through EERE Exchange at https://eere-Exchange.energy.gov/.
 - EERE will not review or consider applications submitted through other means.
- The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found at https://eere-Exchange.energy.gov/Manuals.aspx.



Key Submission Points

- Check entries in EERE Exchange
 - Submissions could be deemed ineligible due to an incorrect entry
- EERE strongly encourages Applicants to submit 1-2 days prior to the deadline to allow for full upload of application documents and to avoid any potential technical glitches with EERE Exchange.
- Make sure you hit the submit button.
 - Any changes made after you hit submit will un-submit your application and you will need to hit the submit button again.
- For your records, print out the EERE Exchange page at each step, which contains the application's Control Number.



Applicant Points-of-Contact

- Applicants must designate primary and backup points-ofcontact in EERE Exchange with whom EERE will communicate to conduct award negotiations.
- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines.
 - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection.



As reviewed earlier in the "Award Information" Slides 12 and 13, for Budget Period 1 zero cost share is required, and following a down selection, for Budget Period 2, ONLY 10% of the total project cost is required to be provided by the applicant or what is referred to as "shared costs".

For this FOA the share is reduced to 10% when normally for demonstration and deployment 50% is required.

The following 5 slides on cost share pertain to Budget Period 2 which will only apply to projects awarded under BP 1 that are selected to continue to BP 2.



- Contributions must be:
 - $\circ~\mbox{Specified}$ in the project budget
 - Verifiable from the Prime Recipient's records
 - Necessary and reasonable for proper and efficient accomplishment of the project.
- If you are selected for award negotiations, every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred.
- Please note, vendors/contractors may NOT provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.



- Cost Share must be allowable and must be verifiable upon submission of the Full Application.
- Refer to the following applicable Federal cost principles:

Entity	Cost Principles	
For-profit entities	FAR Part 31 http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/fardfars/far/31.htm	
All other non- federal entities	2 CFR Part 200 Subpart E - Cost Principles https://www.ecfr.gov/cgi-bin/text-idx?node=2:1.1.2.2.1.5&rgn=div6	



- Cash Contributions
 - May be provided by the Prime Recipient, Subrecipients, or a Third Party (may not be provided by vendors/contractors).
- In-Kind Contributions
 - Can include, but are not limited to: the donation of volunteer time or the donation of space or use of equipment.

For more information, see the Cost Share Appendix A in the FOA.



The Prime Recipient may **NOT** use the following sources to meet its cost share obligations, including but not limited to:

- Revenues or royalties from the prospective operation of an activity beyond the project period
- Proceeds from the prospective sale of an asset of an activity
- Federal funding or property
- Expenditures reimbursed under a separate Federal Technology Office
- The same cash or in-kind contributions for more than one project or program
- Vendor/contractor contributions.



Cost Share Payment

- Recipients must provide documentation of the cost share contribution, incrementally over the life of the award.
- The cumulative cost share percentage provided on <u>each</u> <u>invoice</u> must reflect, at a minimum, the cost sharing percentage negotiated.
- In limited circumstances, and where it is in the government's interest, the EERE Contracting Officer may approve a request by the Prime Recipient to meet its cost share requirements on a less frequent basis, such as monthly or quarterly. See Section III.B.6 of the FOA.



Questions

- Questions about this FOA? Email communitygeo@ee.doe.gov.
 - All Q&As related to this FOA will be posted on EERE Exchange.
 - You must select this specific FOA Number in order to view the Q&As.
 - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A has already been posted on the website.
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? Email EERE-ExchangeSupport@hq.doe.gov.

○ Include FOA name and number in subject line.

