

## Notice of Intent No. DE-FOA-0002661

### Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0002632

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Geothermal Technologies Office, a Funding Opportunity Announcement (FOA) entitled, "Community Geothermal Heating and Cooling Design and Deployment". While geothermal district heating and cooling systems are more common outside the United States, an increasing number are under development domestically. These systems leverage commercially available geothermal direct use and geothermal heat pump components as well as new materials and systems.

The FOA is expected to support community-scale objectives in defined geographic areas. Such objectives include:

- 1) Deploying new or retrofitted geothermal, or geothermal-hybrid, district heating and cooling systems in districts, neighborhoods, and communities
- 2) Identifying solutions for environmental justice conditions, such as cumulative environmental pollution and other hazards; underserved and disadvantaged communities; and community members who have historically experienced vulnerability due to climate change impacts
- 3) Assisting communities to develop career and technical education and workforce transition initiatives to design, install, inspect, operate and maintain new energy systems such as geothermal heating and cooling
- 4) Developing case studies about projects, including technical and economic data, to illustrate how projects can be replicated by communities throughout the United States
- 5) Publishing data and information about geothermal district heating and cooling system deployment to demonstrate the success of such systems in a range of environments and geographies.

Applications that are not expected to be of interest are small-scale designs such as those for one individual residence or several individual residences or businesses; 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.

---

This is a Notice of Intent (NOI) only. EERE may issue a FOA as described herein, may issue a FOA that is significantly different than the FOA described herein, or EERE may not issue a FOA at all.

Target applicants are anticipated to be community coalitions that include the roles as described below. Coalitions should be from urban, suburban, rural, remote, or islanded communities where geothermal can reduce dependence on fossil fuels such as natural gas or heating oil.

Applications may include as many partners as the coalition would like to propose, but—at a minimum—must have the four roles described below represented in the coalition and one partner identified as the prime applicant. Applicants may hold more than one role if they have the background, skills, and interest to do so. The prime applicant is expected to oversee the coalition and its work and may also perform one or more of the following four roles.

Roles that each coalition should include in their application are:

- 1) **Community** team member(s) who understands and can communicate the energy, environmental, economic, social, or other relevant needs that the proposal would address, as well as local development and regulatory requirements. *Examples include local community leadership groups; local planning, zoning, and code officials; community-based organizations; local environmental justice organizations; state, local, and Tribal governments; building owners and developers.*
- 2) **Workforce** team member(s) who know the community labor market and are capable of helping the team with apprenticeship opportunities, job placement, and developing training or lesson plans for the applicable trades. *Examples include private companies, trade schools, universities, Minority-Serving Institutions (MSIs) and other institutions with expertise in HVAC or energy system development; local unions with relevant technical expertise; non-profits with experience in energy system workforce programs.*
- 3) **Analysis/Design** team member(s) who have experience designing geothermal systems as well as analyzing the economic and technical aspects of such systems. *Examples include geothermal and district energy subject matter experts certified in geothermal heat pump design and installation; national labs with technical and economic analysis capabilities related to geothermal systems; engineers, operations researchers, architects, energy modelers, district system design consultants, energy utilities, and site planners.*
- 4) **Deployment** team member(s) who have experience building new or retrofitting existing energy systems. *Examples include private or non-profit organizations with demonstrated experience deploying relevant geothermal heating and cooling technologies in similar settings.*

A major objective of the initiative is to support communities with the need to reduce energy burden and fuel poverty brought on by fossil fuel dependence, increase energy system resilience for secure and reliable heating and cooling, and reduce environmental pollutants. To

---

This is a Notice of Intent (NOI) only. EERE may issue a FOA as described herein, may issue a FOA that is significantly different than the FOA described herein, or EERE may not issue a FOA at all.

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

- 1) **Rural Communities:** Towns/unincorporated areas with populations of less than 10,000 that do not fall within a metropolitan statistical area and are not remote, island, or islanded (see #2).
- 2) **Remote/Island/Islanded Communities:** *Remote* communities are geographically isolated from reliable grid transmission or population centers, resulting in limited access to centralized energy systems. *Island* communities are isolated from the mainland by waterways. *Islanded* communities are not grid-tied to large transmission-scale power systems, resulting in frequent issues with power quality or consistency.
- 3) **Urban/Suburban Communities:** Cities/towns with populations of 10,000 or more and all communities located within a metropolitan statistical area as defined by OMB ([Urban and Rural](#)) that are not remote, island, or islanded.

If issued, the FOA is likely to comprise a “Planning and Design” phase and a “Deployment” phase, with a project down-selection occurring in between the two phases.

Planning and Design Phase: In the planning and design phase, coalitions will design a community-scale geothermal heating and cooling systems in a socio-economic and geographically diverse community where geothermal has high potential to reduce dependence on fossil fuels (e.g., natural gas, heating oil). Coalitions will work to: finalize site location and footprint; assess the geothermal resource; analyze environmental and permitting needs; assess planned usage; conduct techno-economic feasibility analysis and stakeholder engagement; and identify workforce and training development needs.

Deployment Phase: Following a competitive down-select that would be based on work completed in the first phase, selected coalitions will work to deploy community-scale geothermal heating and cooling system(s); conduct workforce training and development activities; and collect and disseminate site data to promote geothermal heating and cooling deployment in similar communities elsewhere in the United States.

GTO encourages collaboration and diverse partnerships to maximize the impact of work performed under this FOA. This FOA will encourage the participation of underserved communities and underrepresented groups. Applicants are highly encouraged to include individuals from groups historically underrepresented in science, technology, engineering, and mathematics fields (STEM) on their project teams.

GTO is providing a [Teaming Partner List](#) or spreadsheet where interested parties may include information about their expertise that can be used by potential applicants or entities interested

---

This is a Notice of Intent (NOI) only. EERE may issue a FOA as described herein, may issue a FOA that is significantly different than the FOA described herein, or EERE may not issue a FOA at all.

in partnering with other applicants for the intended FOA. Additional information regarding the Teaming Partner List can be found at the end of the NOI.

This Notice is issued so that interested parties are aware of the EERE's intention to issue this FOA in the near term. All of the information contained in this Notice is subject to change. EERE will not respond to questions concerning this Notice. Once the FOA has been released, EERE will provide an avenue for potential Applicants to submit questions.

EERE plans to issue the FOA on or about June 15, 2022 via the EERE Exchange website <https://eere-exchange.energy.gov/>. If Applicants wish to receive official notifications and information from EERE regarding this FOA, they should register in EERE Exchange. When the FOA is released, applications will be accepted only through EERE Exchange.

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

- Register and create an account in EERE Exchange at <https://eere-exchange.energy.gov/>. This account will allow the user to register for any open EERE FOAs that are currently in EERE Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission.

Questions related to the registration process and use of the EERE Exchange website should be submitted to: [EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov)

- Register with the System for Award Management (SAM) at <https://www.sam.gov>. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually. Upon registration, SAM will automatically assign a Unique Entity ID (UEI).
- Register in FedConnect at <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)
- Register in Grants.gov to receive automatic updates when Amendments to a FOA are posted. However, please note that applications will not be accepted through Grants.gov <http://www.grants.gov/>. All applications must be submitted through EERE Exchange.

Applicants may also choose to complete the following **optional** steps:

- Optional: The Teaming Partner List and instructions will be available at <https://energy.gov/eere/geothermal/community-geothermal-design-and-deployment->

---

This is a Notice of Intent (NOI) only. EERE may issue a FOA as described herein, may issue a FOA that is significantly different than the FOA described herein, or EERE may not issue a FOA at all.

[teaming-list](#) during the FOA application period. The list will be updated at least biweekly until the close of the full application period, to reflect new teaming partners who have provided their information.

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.

#### RESOURCES:

- 1) [Geothermal District Heating and Cooling](#) (U.S. Environmental Protection Agency)
- 2) [GeoVision: Harnessing the Heat Beneath Our Feet](#) (U.S. Department of Energy, Geothermal Technologies Office)
- 3) [2021 U.S. Geothermal Power Production and District Heating Market Report](#) (National Renewable Energy Laboratory)
- 4) [Database of State Incentives for Renewables and Efficiency](#) (North Carolina State University)

---

This is a Notice of Intent (NOI) only. EERE may issue a FOA as described herein, may issue a FOA that is significantly different than the FOA described herein, or EERE may not issue a FOA at all.