U.S. Department of Energy

Request for Information

"Remote Alaskan Communities Energy Efficiency Competition"

DATE: September 29, 2015

SUBJECT: Request for Information (DE-FOA-0001421)

DESCRIPTION: This RFI pertains to the Remote Alaskan Communities Energy Efficiency Competition, announced September 2, 2015,[1] a proposed initiative to accelerate deployment of clean and energy efficiency strategies. The RFI seeks to gather information related to community energy needs, implementation challenges, partnership needs, competition design and data collection.

BACKGROUND: Remote Alaskan communities face a number of unique energy challenges. The combination of harsh climate with the remoteness of communities accessible only by boat or plane contributes to high energy costs. In Alaska, the unsubsidized cost of heating oil in July 2015 averaged $5.27 per gallon, and in some regions, up to $9 per gallon.[2] The average electricity cost is more than $0.50 per kilowatt hour (kWh), reaching as high as $1.50 per kWh in some villages.[3] Energy use in rural Alaska is dominated by use of liquid fuels for space heating and transportation. In rural communities, more than 80% of energy may be used for heating.[4] Energy efficiency improvements can impact both heating and electricity end-uses, and can help Alaskans reduce their energy costs, and increase energy reliability.

The U.S. Department of Energy (DOE) is proposing a new initiative to significantly accelerate adoption of sustainable clean and energy efficiency strategies in remote rural Alaskan communities. For the purposes of this initiative, "remote or rural areas" include communities with a population of 5,500 or less that are not connected by an all-weather road or rail to Anchorage or Fairbanks, or with a population of 1,500 or less that are connected by road or rail to Anchorage or Fairbanks. Through the proposed competitive process, the Remote Alaskan Communities Energy Efficiency Competition is being designed to empower Alaskan communities to develop solutions for effectively advancing the use of reliable, affordable, and energy efficient solutions that are applicable throughout rural communities in Alaska and potentially in other Arctic regions. It is anticipated that DOE may have up to $4 million in technical assistance and other support through this initiative.

---

[1] FACT SHEET: President Obama Announces New Investments to Combat Climate Change and Assist Remote Alaskan Communities, https://www.whitehouse.gov/the-press-office/2015/09/02/fact-sheet-president-obama-announces-new-investments-combat-climate

[2] Alaska Fuel Price Report - July 2015 Update, https://www.commerce.alaska.gov/web/Portals/4/pub/FuelPriceReport_July2015.pdf

[3] 2014 Power Cost Equalization Program report, http://www.akenergyauthority.org/Content/Programs/PCE/Documents/FY14PCEStatisticalRptByComtAmended.pdf

[4] Alaska Energy Authority End Use Study: 2012, http://www.akenergyauthority.org/Content/Efficiency/EndUse/Documents/AlaskaEndUseStudy2012.pdf

Goals
The proposed initiative is intended to address the following goals:

1) Reliability: Remote Alaskan communities need reliable and readily available sources of energy that can be operated and maintained using local resources and expertise. A goal of the proposed initiative is to identify and implement effective, reliable energy efficiency solutions, and use baseline and ongoing energy usage data to demonstrate the performance of the implemented measures in remote arctic conditions. Improving energy reliability can be achieved through multiple methods, such as enhanced system and end-use efficiencies that reduce fuel demand, increased power and heat generation efficiency, better system reliability to reduce downtimes, integration and optimization of energy storage, and distributed energy resources such as combined heat and power, heat recovery, and other clean energy technologies.
2) Affordability: Remote Alaskan communities face steep energy costs. A goal of this initiative is to reduce the total cost of energy through energy efficiency. Identifying and implementing cost-effective, energy efficiency solutions could reduce total energy costs to utility customers by reducing the use of high-cost fuel for electricity and heat.
3) Broad Applicability: While each community has its own set of challenges that may require a unique combination of energy efficiency strategies, many of those potentially implemented under this initiative will be widely applicable to other remote region Alaskan and Arctic communities. For some remote Alaskan or Arctic communities without broad deployment of energy efficiency technologies, this effort may provide an opportunity to demonstrate technology performance in the Arctic.

Proposed Plans
The proposed initiative anticipates providing support to community efforts to adopt cultural and climate appropriate energy efficiency and resiliency measures. It is hoped that communities will develop long-term, sustainable energy efficiency plans based on an evaluation of their energy use and needs, and take steps to successfully implement those plans. The initiative seeks to advance solutions that are applicable to rural Alaskan communities and Arctic communities broadly.

The competition proposes to include three phases:

1) Alaska communities pledge to improve their energy efficiency, and may create or join a peer network with other communities and/or organizations in Alaska working to improve their energy efficiency.
2) Through a competitive process, a subset of the enrolled communities will be provided technical and financial assistance to perform baseline data collection and develop energy efficiency plans.
3) Through a competitive process, the energy efficiency plans will be evaluated, and a subset will be selected to each receive funding and technical assistance to implement their energy efficiency plans.

To ensure the goals and activities of the proposed initiative are relevant to remote rural Alaskan communities and will result in proven, sustainable solutions that are applicable to other Arctic communities, this RFI is seeking input from Alaska communities, community and regional organizations, and other interested parties, including industry, academia, research laboratories, government agencies, and other stakeholders. Respondents do not need to reply to all questions.

Target Communities

The proposed initiative targets remote Alaskan communities, either individually or in partnership with other organizations or groups. Communities are defined as Alaskan local and tribal governments,[5] or consortia thereof, located in remote or rural areas of Alaska. For the purposes of this initiative, local governments may include a village, borough, municipality, town, township, local public authority (including any public and Indian housing agency), school district, special district, intrastate district, council of governments, any other regional or interstate government entity, or any agency or instrumentality of a local government. Remote or rural areas include communities with a population of 5,500 or less that are not connected by an all-weather road or rail to Anchorage or Fairbanks or with a population of 1,500 or less that are connected by road or rail to Anchorage or Fairbanks.

PURPOSE: The purpose of this RFI is to solicit feedback from Alaskan remote rural community leaders, village councils, community organizations, energy utilities/suppliers/cooperatives, and other Alaskan government and non-government organizations and stakeholders to help shape the design of an energy efficiency competition targeted at remote rural Alaskan communities. DOE is seeking feedback more broadly from industry, academia, research laboratories, government agencies, and other stakeholders on issues related to competition design, technical assistance and expertise needed to support these communities in development and implementation of energy efficiency and clean distributed generation strategies. DOE is specifically interested in information on the challenges and opportunities for implementing energy efficiency improvements and clean distributed generation technologies in remote Alaska communities. DOE is also interested in developing a better understanding of community energy needs, interest in participation, energy consumption data, energy efficiency implementation, and partnerships. Specific questions are listed below. This is solely a request for information and not a Funding Opportunity Announcement (FOA). DOE is not accepting applications.

DISCLAIMER AND IMPORTANT NOTES: This RFI is <u>not</u> a Funding Opportunity Announcement (FOA); therefore, DOE is <u>not</u> accepting applications at this time. DOE may issue a FOA in the future based on or related to the content and responses to this RFI; however, DOE may also elect not to issue a FOA. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if DOE chooses to issue a FOA regarding the subject matter. Final details,

[5] To be considered as a tribal government for purposes of this Announcement, the entity must be any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688) [43 U.S.C. 1601 et seq.], which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

including the anticipated award size, quantity, and timing of DOE funded awards, will be subject to Congressional appropriations and direction.

Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development; this RFI does not constitute a formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. DOE will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. DOE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that DOE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind DOE to any further actions related to this topic.

PROPRIETARY INFORMATION: Because information received in response to this RFI may be used to structure future programs and FOAs and/or otherwise be made available to the public, **respondents are strongly advised to NOT include any information in their responses that might be considered business sensitive, proprietary, or otherwise confidential.** If, however, a respondent chooses to submit business sensitive, proprietary, or otherwise confidential information, it must be clearly and conspicuously marked as such in the response.

Responses containing confidential, proprietary, or privileged information must be conspicuously 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. Federal Government is not liable for the disclosure or use of unmarked information, and may use or disclose such information for any purpose.

If your response contains confidential, proprietary, or privileged information, you must include a cover sheet marked as follows identifying the specific pages containing confidential, proprietary, or privileged information:

> **Notice of Restriction on Disclosure and Use of Data:**
> Pages [list applicable pages] of this response may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for the purposes described in this RFI [DE-FOA-0001421]. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

In addition, (1) the header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: “Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure” and (2) every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

EVALUATION AND ADMINISTRATION BY FEDERAL AND NON-FEDERAL PERSONNEL: Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response,

consent to DOE providing their response to non-Federal parties. Non-Federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

REQUEST FOR INFORMATION CATEGORIES AND QUESTIONS:
Respondents may respond to any or all questions or sections, and do not need to address all the questions or sections.

CATEGORY 1: Community Energy Needs

1. What are remote rural Alaska communities' greatest needs related to energy? What role does energy efficiency and clean distributed generation play in meeting those needs?
2. In addition to energy reliability and cost reduction, how can this competition create positive impacts for rural communities, including jobs, training, environmental and health impacts from adoption of clean and efficient energy technologies?
3. What are some key characteristics of communities that would be most interested and motivated to adopt energy efficiency technologies and measures, and why? Who are the decision-makers and individuals most likely to serve as energy champions in these communities?
4. What are the technical assistance needs of communities related to delivering efficient energy services and energy efficiency planning and implementation? What type of technical assistance would be most valuable? (e.g., information sharing and collaboration through peer exchange, access to local or national energy efficiency experts, or other methods).

CATEGORY 2: Energy Efficiency and Clean Distributed Generation Implementation

1. What type of energy-consuming infrastructure (buildings, equipment, water and wastewater facilities and/or other infrastructure) are communities most interested in targeting for energy efficiency improvements, and for what reasons (e.g., buildings with the largest energy loads, aging equipment or infrastructure in need of upgrades, etc.)?
2. What are the opportunities and challenges to implementing energy efficiency measures in public properties? In residential properties? In commercial properties? Please provide a description of energy efficiency projects that have been successful and could be replicated, as well as challenges to such projects. Do you have any recommended solutions?
3. What other programs, funding and technical assistance are available to remote communities for (a) potential energy efficiency planning or (b) the deployment of energy efficiency measures (public and private)?
4. What types of incentives (e.g., recognition, technical assistance, mentoring, specific financial incentive structures) would be effective to support or incentivize the deployment of energy efficiency measures within remote Alaskan communities?

CATEGORY 3: Partnerships

1. It is anticipated that DOE would work with one or more partner(s) to assist with outreach, community engagement, technical assistance, and energy efficiency implementation. What types of groups or partners are well positioned to work with communities and/or provide assistance in helping remote communities successfully plan and implement energy efficiency improvements? (e.g., local utilities, peer communities). How should they be involved in the competition? Please provide potential partners and opportunities for external support, such as support from foundations and/or other public or private parties, etc.
2. What are important areas of expertise and qualifications needed for effectively supporting communities?
3. What role can local utilities play in partnering and assisting in implementation of energy efficiency projects and/or tracking results of energy efficiency improvements?

CATEGORY 4: Competition Design

1. How could DOE define remote rural Alaskan communities for eligibility requirements? Please indicate population size, region, and other relevant characteristics.
2. What are specific, measurable, and relevant energy efficiency targets that are achievable and would have a significant impact on reducing energy costs and consumption (e.g., a percentage reduction in total energy use or fuel imports, etc.)?
3. What outreach strategies may be most effective for engaging remote Alaska communities to engage in a competition with other peer communities and partners? Which groups and stakeholders should be involved?
4. What aspects of this proposed competition can make it a success and why? What aspects may be problematic?
5. How could funds be distributed across the three phases of the competition to create the greatest long-term impact?

CATEGORY 5: Energy Consumption Data

1. What measures and data are most relevant for communities to be able to assess their energy use and inform decisions about energy efficiency improvements?
2. What existing data sources can be used to evaluate energy use at a community-wide, local government, and individual end-user level? What data formats are available? Are local utilities willing and able to provide community-wide energy consumption data? Include information on common energy use tracking methods and data sharing practices that energy suppliers and local utilities use with their commercial and residential customers.
3. How do communities/local governments or relevant stakeholders currently track their energy use and expenditures? How can such tracking be further facilitated efficiently and economically?

REQUEST FOR INFORMATION RESPONSE GUIDELINES: Responses to this RFI must be submitted electronically to AlaskaCompetition@hq.doe.gov no later than 5:00 pm (ET) on October 30, 2015. Responses must be provided as attachments to an email. It is recommended that attachments with file sizes exceeding 25MB be compressed (i.e., zipped) to ensure message delivery. Only electronic responses will be accepted.

Please identify your answers by responding to a specific question or topic if possible. Respondents may answer as many or as few questions as they wish.

DOE will not respond to individual submissions or publicly share a compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.