

## Notice of Intent No. DE-FOA-0001209

### Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0001181

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Wind and Water Power Technologies Office, a Funding Opportunity Announcement (FOA) entitled “Wind Energy Bat Impact Minimization Technologies and Field Testing Opportunities.”

To address and minimize the regulatory and financial risks associated with wind power development in locations with sensitive bat species, the Department of Energy’s Wind and Water Power Technologies Office (WWPTO) seeks through this FOA to fund projects that advance the technical and commercial readiness of bat impact mitigation and minimization technologies including, but not limited to, bat deterrents and operational changes that have a high likelihood of reducing bat mortality at a facility. This FOA will also support the demonstration and evaluation of near-commercial bat impact mitigation technologies at operational wind facilities. These technologies, once successfully demonstrated, will provide regulators and wind facility owner-operators with viable and cost effective tools to reduce bat mortality at wind facilities and ease the regulatory and financial uncertainty related to the development and long-term operation of wind farms in bat habitat.

It is anticipated that the FOA may include the following Areas of Interest:

#### **Area of Interest 1: Proof of concept and prototype advancement through laboratory and small scale field testing**

Awards made under Topic Area 1 will support: the development of technology designs, initial prototypes/systems, and laboratory-scale testing in a controlled setting to demonstrate the potential effectiveness of a minimization technology concept, or to ready them for full system testing in an operational environment. For example, an awardee may test different auditory or visual stimuli on bats in a laboratory setting to determine relative effectiveness in deterring particular species or group of species and develop an initial prototype deterrent device based on the results.

For technologies beyond the proof-of-concept phase, work could include establishing the effectiveness of a prototype in a controlled, laboratory or small-scale setting and iterative design improvements based on initial performance. For example, an awardee could conduct field tests of a prototype bat deterrent in a setting outside of a wind facility, such as at a field or pond, to establish its ability to reduce bat activity without habituation.

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## Area of Interest 2: Operational demonstration and validation

Awards made under Topic Area 2 will support the demonstration and evaluation of a proposed minimization technology at an operational wind facility, at a scale sufficient to determine a statistically significant reduction in bat mortality at a demonstrated reasonable cost.

Study designs to assess the effectiveness of the proposed technology will be evaluated based on the robustness of the methodology proposed. Consideration should be given to variables such as randomization of treatments, establishment of appropriate controls, power analyses to demonstrate that efficacy can be statistically demonstrated over the course of the study given anticipated rates of mortality, estimated effect size and proposed survey duration. Applicants should also consider the use of appropriate statistical estimators that account for sources of potential bias such as searcher efficiency and carcass removal to translate raw count data into robust estimates of mortality.<sup>1</sup>

It will be essential that applicant teams conduct their technology demonstration at an operational wind facility and have the active participation and support of the facility operator to ensure safe and effective integration of the impact minimization technology being evaluated, as well as to allow for a full evaluation of the costs associated with implementing the technology. EERE therefore strongly encourages teams to include the following entities: 1) a wind facility operator, 2) a mitigation technology provider, and 3) independent evaluators of the effectiveness of the impact minimization technology. These evaluators should have appropriate biological expertise, including well-demonstrated experience with designing and conducting successful relevant environmental monitoring or research at wind farms, expertise regarding the species of interest, and expertise in relevant statistical methodology for wind farm environmental impact study design and data analysis.

EERE anticipates requiring applicants under this Topic Area to provide assurances that evaluators of minimization technologies will be independent to design and will execute their assessments of the effects of the deployed mitigation technologies, free from the influence of the facility operator or mitigation technology provider except as necessary to ensure safe and efficient operation of the mitigation technology and the wind facility.

Under this FOA, EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. For Topic Area 1, EERE anticipates making two to four awards of approximately \$250,000 per award, and requiring 20% non-federal cost-share. For Topic Area 2, EERE anticipates making one to three awards of approximately \$500,000 per award, and requiring 50% non-federal cost share. The estimated period of performance for each award will be approximately 12 to 24 months.

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<sup>1</sup> See, for example, Huso, M. M. P. (2011), An estimator of wildlife fatality from observed carcasses. *Environmetrics*, 22: 318–329.

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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 in the first Quarter of Fiscal Year 2015 (by December 31, 2014) 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)

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>
- 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.
- 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/PublicPages/FedConnect\\_Ready\\_Set\\_Go.pdf](https://www.fedconnect.net/FedConnect/PublicPages/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.

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