Notice of Intent No.: DE-FOA-0003255

DISCLAIMER: The "Notice of Intent to Issue" is for informational purposes only; the Department of Energy is not seeking comments on the information in this notice and applications are not being accepted at this time. Any information contained in this notice is subject to change.

This is a Notice of Intent to issue
Funding Opportunity Announcement No.: DE-FOA-0003256

IRA: Methane Emissions Reduction Program
Oil and Gas Methane Monitoring and Mitigation (OGM^3)

The United States (U.S.) Department of Energy (DOE) National Energy Technology Laboratory (NETL) intends to issue a Funding Opportunity Announcement (FOA) on behalf of the DOE Office of Fossil Energy and Carbon Management (FECM) titled, "IRA: Methane Emissions Reduction Program, Oil and Gas Methane Monitoring and Mitigation (OGM^3)", in collaboration with the U.S. Environmental Protection Agency (EPA). NETL anticipates issuing the Methane Emissions Reduction Program (MERP), OGM^3 FOA, as part of the MERP, in February/March 2024 with an open application period of 60 days. The FOA will be funded by the Inflation Reduction Act (IRA).

BACKGROUND

On August 16, 2022, President Biden signed the Inflation Reduction Act, (Public Law 117-169), including Section 60113, which added Section 136 to the Clean Air Act (CAA) "Methane Emissions and Waste Reduction Incentive Program for Petroleum and Natural Gas Systems" (also referred to as the Methane Emissions Reduction Program) (codified at 42 U.S.C. 7436). CAA Section 136 gives EPA the authority to award grants, rebates, contracts, loans, and other activities for the purpose of providing financial and technical assistance to better monitor and reduce methane and other air pollution emissions from petroleum and natural gas systems.

The mission of the EPA is to protect human health and the environment. EPA works to ensure that:

- Americans have clean air, land and water;
- National efforts to reduce environmental risks are based on the best available scientific information;
- Federal laws protecting human health and the environment are administered and enforced fairly, effectively and as Congress intended;
- Environmental stewardship is integral to U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;
- All parts of society--communities, individuals, businesses, and state, local and Tribal governments--have access to accurate information sufficient to effectively participate in managing human health and environmental risks;
- Contaminated lands and toxic sites are cleaned up by potentially responsible parties and revitalized; and,
- Chemicals in the marketplace are reviewed for safety.

The Office of Air and Radiation (OAR) develops national programs, policies, and regulations for controlling air pollution and radiation exposure. OAR is responsible for administering the CAA and other applicable environmental laws.

The mission of the DOE is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions. DOE works to catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in energy technology as well as maintain a vibrant U.S. effort in science and engineering as a cornerstone of our clear leadership in strategic areas. Furthermore, the agency enhances nuclear security through defense, nonproliferation, and environmental efforts.

Within the DOE, FECM's mission is to minimize the environmental and climate impacts of fossil fuels and industrial processes while working to achieve net-zero emissions across the U.S economy. In particular, FECM's Methane Mitigation Technologies Division is working to reduce methane emissions from the oil and natural gas supply chain, including from upstream production to processing, transportation, storage, and downstream end use.

NETL's mission is to drive innovation and deliver solutions for an environmentally sustainable and prosperous energy future. This includes ensuring affordable, abundant, and reliable energy resources that drive a robust economy and national security, while developing technologies to manage carbon across the full life cycle and enabling environmental sustainability for all Americans. NETL implements national programs in fossil energy and carbon management and broader DOE programs in collaboration with partners through integrated technical and business teams. In addition, NETL, primarily through its Research and Innovation Center**,** exercises core technical competencies that enable NETL to be an international resource for fossil energy technology discovery, development, and deployment.

The two agencies (DOE and EPA), in fulfillment of their responsibilities as outlined above, are collaborating to develop a competitive solicitation for financial assistance to enable a variety of industry and other U.S.-based stakeholders to have an opportunity to better mitigate or reduce methane emissions to the atmosphere, accelerate cost reductions and market deployment of innovative methane emissions reduction technologies, and better characterize methane emissions from oil and natural gas operations.

TECHNICAL OBJECTIVES

The anticipated technical objectives are to make funds available to a variety of applicants for the purpose of monitoring and mitigating methane emissions, and legacy air pollution from oil and gas assets, including but not limited to marginal conventional wells (MCWs)[1]. These efforts are anticipated to accelerate cost reductions and commercial deployment of innovative methane emissions reduction technologies and advance the characterization and reduction of methane emissions through multi-scale, measurement-informed data collection and analysis that also support environmental justice. If released, this FOA may award up to $1 billion through financial assistance awards to a range of applicants under the three technical Areas of Interest (AOI) outlined below.

AOI 1: Methane Emissions Reduction for Existing Wells and Infrastructure

This anticipated AOI would be designed to mitigate methane emissions, and reduce and prevent pollution and other environmental impacts associated with operating MCWs and other oil and natural gas assets.

[1] Marginal conventional wells are defined as idle or producing onshore vertical or slightly deviated oil or natural gas well (excludes highly deviated or horizontal wells) with a known owner / operator producing less than or equal to 15 barrels of oil equivalent per day (BOED) and/or 90 thousand cubic feet (Mcf) natural gas per day (1 BOE = 6 Mcf) over the prior 12-month period.

Under AOI 1, it is anticipated that there will be three subtopics and that under each subtopic, funds would be provided directly to a single lead entity such as an organization that represents oil and natural gas producers, a non-governmental research institution, university, or a Tribal organization. The intent would be for these organizations to manage and optimize the effective distribution of funds within each subtopic to owners/operators with relevant oil and natural gas assets This would be accomplished through the application of DOE and EPA-defined measurement and mitigation implementation guidelines for a variety of technologies with the goal of accelerating the implementation of commercially available solutions. The three subtopics anticipated for AOI 1 are expected to address:

- Reduction of methane emissions from MCWs through the identification of wells requiring emissions mitigation beyond what is covered in DE-FOA-0003109 and the procurement and installation of retrofit technologies to reduce these emissions to the atmosphere;
- Reduction of methane emissions from other wells and upstream and midstream oil and natural gas assets, which are owned and/or operated by small operators, through the procurement and installation of retrofit technologies to reduce emissions to the atmosphere; and
- Reduction of methane emissions from oil and natural gas assets located on Tribal lands, through identification of wells and associated transport infrastructure requiring installation of retrofit technologies to reduce emissions to the atmosphere (from such wells and associated infrastructure).

This anticipated AOI is intended to further build upon the activities under DE-FOA-0003109, titled "IRA: Mitigating Emissions from Marginal Conventional Wells", which made funds available to States for the purpose of reducing emissions from MCWs on non-Federal lands.

AOI 2: Accelerating Deployment of Innovative Methane Reduction Solutions

This anticipated AOI may encompass several subtopics that will seek to leverage prior technology investments and advancements in this area to reduce costs and accelerate commercialization of technologies for reducing emissions from gas-fueled compressors and engines, flare stacks, and other methane emitting equipment and processes associated with petroleum and natural gas systems. It is anticipated that one set of subtopic areas would focus efforts toward the rapid deployment of innovative solutions to complex and difficult-to-mitigate emissions sources (e.g., compressor station blowdowns, engine slip, non-routine flaring). It is envisioned that awards under AOI 2 would support the field demonstration and commercialization of solutions that can effectively address emissions from these harder-to-mitigate sources on a large scale, and that also have the potential to help producers cost-effectively comply with ongoing regulatory efforts. It is anticipated that project teams under this AOI would include businesses that intend to commercialize the technologies and industry partners who would adopt those technologies, where applicable.

AOI 3: Regional Methane Emissions Reduction Consortia

This AOI would support the collection of empirical data to accurately characterize and quantify the total methane emissions from oil and natural gas operations across multiple, large geographical regions including key oil and natural gas producing basins and associated transport infrastructure over various time frames. This characterization would be accomplished through measurement-informed methane emissions data integration and analysis, including but not limited to, annual emissions estimates at equipment, facility, and basin-levels. The AOI will provide emissions and other data and/or methane detection technologies as well as training on the use of the data and/or technologies. These provisions may be used by disadvantaged communities with environmental justice concerns to enable these communities to engage in monitoring at the local level and reduce legacy air pollution. The objective would be to address the need for consistent, accurate, granular, and transparent multi-scale (e.g., optical, tower, aerial, satellite) methane emission measurement approaches that can be used to inform EPA's greenhouse gas emissions inventories and reporting programs and assist State, Tribal and industry mitigation efforts.

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

The intent of this AOI would be to develop region-specific collaborative partnerships among oil and natural gas owners and operators, universities, environmental justice organizations, community leaders, workers, unions, technology developers, Tribes, state regulatory agencies, non-governmental research organizations, and Federally Funded Research and Development Centers and National Laboratories. The geographic regions envisioned for this AOI are included in Figure 1.

It is anticipated that one award would be selected from each region to allow a single project team to lead the characterization and quantification of methane emissions related to oil and natural gas operations and guide deployment of emissions reduction technology across the entire region. Potential applicants are encouraged to collaborate with relevant organizations and interested parties to begin forming strong teaming arrangements that include a broad range of the relevant parties for their region.

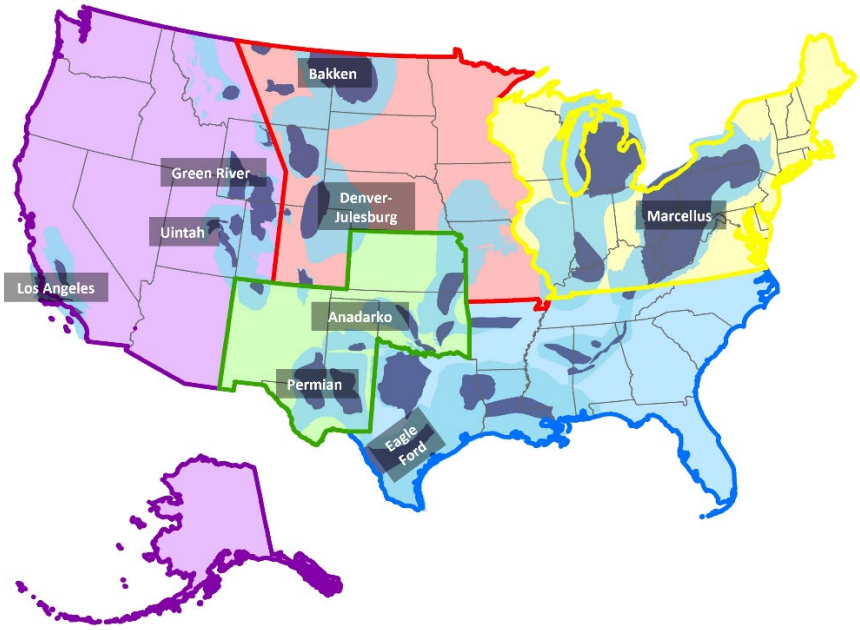


Figure 1: Regional Methane Characterization Project Regions
(Oil and Gas Basins Highlighted in Gray)

In keeping with the Administration's goals, this funding announcement will also support the Justice40 Initiative, which aims to provide 40 percent of the overall benefits of certain Federal investments to disadvantaged communities, and facilitate broader energy prosperity. DOE will require projects to track and report on outcomes and outputs related to benefits to disadvantaged communities, such as prevention or reductions in air pollution, public and community engagement, consent-based siting (as appropriate), high-quality job creation, and workforce development, along with any other potentially relevant benefits that may advance environmental justice. Guidance on specific application and reporting requirements will be included in the program FOA.

Further, to advance the Administration's goals to support American workers as part of the Invest in America agenda, if released, this FOA will also require projects to demonstrate how they will recruit, train, and retain a skilled workforce, use formal agreements to deliver benefits to workers and communities, utilize registered apprenticeships, protect workers' health and safety, and affirmatively support the free and fair chance to join a union. Teams should consider proactive community and labor engagement and how project workforce and Justice40 commitments can be included in community and labor agreements.

DOE and EPA will **not** accept questions at this time regarding issuance of the potential FOA. Details on how to submit questions and comments will be provided in the FOA, if issued.

Additional Information on the EPA's Methane Emissions Reduction Program may be accessed at: Methane Emissions Reduction Program | US EPA and DOE FECM's Methane Mitigation Technologies at Methane Mitigation Technologies | Department of Energy.

SUBMISSION AND REGISTRATION REQUIREMENTS FOR FULL APPLICATION

If the FOA is released, it is anticipated it will be posted at Grants.gov (http://www.grants.gov) and at FedConnect (http://www.fedconnect.net). Entities interested in applying for awards under the FOA are strongly encouraged to register at these sites to receive notification of announcements regarding the FOA. If DOE decides to issue the FOA, it is anticipated that applications can only be submitted through Grants.gov.

There are several one-time actions that must be completed before submitting an application in response to a Funding Opportunity Announcement (FOA) (e.g., obtain a Unique Entity Identifier (UEI), register with the System for Award Management (SAM), register with Grants.gov, and register with FedConnect.net to submit questions). It is vital that applicants address these items as soon as possible. Some may take several weeks, and failure to complete them could interfere with an applicant's ability to apply to this FOA. Applicants who are not registered should allow **at least 44 days to complete these requirements.**

- **UEI** - Applicants must obtain an UEI from the SAM to uniquely identify the entity. The UEI is already available in the SAM entity registration record.

  NOTE: Subawardees/subrecipients at all tiers must also obtain an UEI and provide the UEI to the Prime Recipient before the subaward can be issued.

- **SAM** - Applicants must register with the SAM at https://www.sam.gov/ prior to submitting an application in response to this FOA. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Failure to register with SAM will prevent your organization from applying through Grants.gov. The applicant must maintain an active SAM registration with current information at all times during which it has an active Federal award or an application under consideration. More information about SAM registration for applicants is found at: https://www.fsd.gov/gsafsd_sp?id=gsafsd_kb_articles&sys_id=650d493e1bab7c105465eaccac4bcbcb.

  NOTE: If clicking the SAM links do not work, please copy and paste the link into your browser.

- **Grants.gov** - Applicants must register with Grants.gov and set up your WorkSpace. You cannot submit an application through Grants.gov unless you are registered. Please read the registration requirements carefully and start the process immediately.

  1) The Authorized Organizational Representative (AOR) must register at: https://apply07.grants.gov/apply/OrcRegister
  2) An email is sent to the E-Business (E-Biz) POC listed in SAM. The E-Biz POC must approve the AOR registration using their MPIN from their SAM registration.

More information about the registration steps for Grants.gov is provided at:
https://www.grants.gov/web/grants/applicants/registration.html

In addition:

- Add a Profile to a Grants.gov Account: A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant. If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all of your grant applications. To add an organizational profile to your Grants.gov account, enter the UEI for the organization while adding a profile. For more detailed instructions about creating a profile on Grants.gov, refer to: https://www.grants.gov/web/grants/applicants/registration/add-profile.html

- *EBiz POC Authorized Profile Roles*: After you register with Grants.gov and create an Organization Applicant Profile, the organization applicant's request for Grants.gov roles and access is sent to the EBiz POC. The EBiz POC will then log in to Grants.gov and authorize the appropriate roles, which may include the AOR role, thereby giving you permission to complete and submit applications on behalf of the organization. You will be able to submit your application online any time after you have been assigned the AOR role.

  NOTE: When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the organization as a user with the AOR role; **this step is often missed, and it is crucial for valid and timely submissions.**

  For more detailed instructions about creating a profile on Grants.gov, refer to:
  https://www.grants.gov/web/grants/applicants/registration/authorize-roles.html

  To track your role request, refer to:
  https://www.grants.gov/web/grants/applicants/registration/track-role-status.html

Questions relating to the **registration process**, **system requirements, or how an application form works** must be directed to Grants.gov at 1-800-518-4726 or **support@grants.gov**.

- **FedConnect.net -** Applicants must register with FedConnect to submit questions. FedConnect website: www.fedconnect.net.

DISCLAIMER

This NOI is issued so that interested parties are aware of the DOE's intention to issue a FOA in the near term. Any information contained in this NOI is subject to change.

No Applications are being accepted at this time.