Safer Offshore Energy Grants 2 & Thriving Communities Grants 1

Grant Type: Exploratory

Grant Type Description

Exploratory Grants: These grants will support projects that seek to break new ground to address an old or a new problem through innovation. By innovation, we mean the development of new approaches, technologies, or methods and/or the application of new expertise through the engagement of novel, non-traditional disciplinary or cross-sectoral perspectives. Responsive grants could include research, methods development, or approaches for translating or applying scientific evidence to decision making. These grants are modeled on the National Science Foundation's EArly concept Grants for Exploratory Research (EAGER). They are not intended for incremental research in well-studied areas.

A Letter of Intent is required for this funding opportunity.

Key Dates

Letter of Intent

December 15, 2015: Online Submission of Letter of Intent Opens (CLOSED)
February 17, 2016, 5:00pm ET: Letter of Intent Due (CLOSED)

Full Proposal

February 18, 2016: Online Submission of Full Proposal Opens (ONLY to Applicants Who Submitted a Letter of Intent) (CLOSED)
April 13, 2016, 5:00pm ET: Full Proposal Due (CLOSED)

Request for Applications Topics for Exploratory Grants – Award Year 2016

The Gulf Research Program welcomes proposals from non-federal organizations on behalf of all qualified scientists, engineers, health professionals, and educators on one of the following topics:

- Scenario Planning to Advance Safety Culture and Minimize Risk in Offshore Oil and Gas Operations (Safer Offshore Energy Grants 2)
- Informing Coastal Community Planning and Response to Environmental Change in Regions with Offshore Oil and Gas Operations (Thriving Communities Grants 1)

Safer Offshore Energy Grants 2
Topic: Scenario Planning to Advance Safety Culture and Minimize Risk in Offshore Oil and Gas Operations

Opportunity

This funding opportunity seeks proposals for innovative projects that explore the development and testing of new approaches, strategies, technologies, and/or methods that improve the use of scenario planning to advance the development of a safety culture that can prevent and mitigate risks related to offshore oil and gas operations (drilling, production, well integrity, transportation) on the U.S. Outer Continental Shelf. Projects should seek to identify scenarios that could lead to high consequence, process-safety related incidents and to inform efforts to prevent and respond to these incidents, and/or mitigate potential harms to people and the environment.

Challenge

Scenario planning (also known as scenario assessment, scenario thinking, or strategic forecasting) is an element of risk assessment that involves exploring scenarios where potentially dangerous incidents might occur, considering risks to be mitigated and possible actions that could be taken, and identifying weaknesses in response planning. Scenario planning is commonly used in risk assessments of oil and gas operations, but innovation is needed in the use of this tool to identify aspects of risk associated with human and organizational factors.

This RFA challenges applicants to conduct exploratory research that develops and tests ways to improve the use of scenario planning as a tool to explore risks related to high consequence, process-safety related incidents in offshore oil and gas operations (see below in What we are looking for), and to identify opportunities to prevent these incidents or minimize related harms. Of particular interest are

scenarios that lead to a better understanding of how the actions of organizations and individuals influence safety culture. Developing a strong safety culture was identified as a critical opportunity in the 2011 Report to the President from the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling.

What we are looking for:

Below are examples of the types of innovations that may be needed to advance this work. This list is not comprehensive but illustrative. It is intended to challenge proposers to consider the range of opportunities that could be supported through these grants:

- Strategies and methods for ensuring that the experience and insights of operators, drilling contractors, and/or service providers are factored into the process of scenario planning.
- Decision support systems that include explanations for the choice of scenarios as the basis for identifying effective responses.
- Scenarios that help identify, from a human and organizational factors standpoint, strategies for preventing and preparing for the next major offshore spill, fire, or explosion, and how to mitigate the consequences.
- New approaches, tools, or technologies to integrate human factors into scenario planning to decrease the frequency and severity of loss of containment incidents in offshore operations.
- New approaches, tools, or technologies that use scenario planning to support education and training activities to prevent incidents and improve preparedness for oil-spill containment and or fires and explosions on offshore installations, response, and harm mitigation.
- Scenarios that help explore how a common set of values and behaviors among stakeholders (e.g., industry, operators, regulators) can contribute to the prevention of high consequence, process-safety related offshore incidents.

To be considered responsive to this RFA, proposed projects must:

- Clearly describe the logic and context for scenario planning.
- Clearly describe how plausible scenarios for high consequence, process-safety disasters that are representative of the kinds of risks encountered in offshore operations along the U.S. Outer Continental Shelf will be developed or used. While not required, cross-sector and cross-disciplinary approaches, particularly those that include human factors, are encouraged.

- Clearly articulate how systems approaches are used to identify scenarios (i.e., scenarios should not focus on one specific aspect of oil and gas operations).
- Clearly describe how scenario outputs may be used to identify opportunities to improve prevention, response, and harm mitigation efforts that could be addressed through research, education, or training
- Clearly describe why the proposed project is appropriate for Exploratory Grant funding (i.e., what is innovative about the proposed project?)

We will not consider funding for:

- Activities or programs that are simply a continuation of efforts already underway.
- Scenario planning for personal-safety related events (e.g., slips, trips, and falls)

Thriving Communities Grants 1

Topic: Informing Coastal Community Planning and Response to Environmental Change in Regions with Offshore Oil and Gas Operations

Opportunity

This funding opportunity seeks proposals for projects that break new ground in improving the capabilities of communities in coastal regions adjacent to the U.S. Outer Continental Shelf to successfully plan for, mitigate, and adapt to environmental change–specifically in the context of how these changes may affect or be affected by offshore oil and gas operations. Grants will support exploratory activities that develop and test new approaches, technologies, and methods, or bring novel or non-traditional perspectives to relevant research and its application. Applicants are strongly encouraged to engage end-users—including decision makers, community leaders, and organizations that work at the interface between science and policy—in activities to move research findings into practice.

Challenge

In many regions adjacent to the U.S. Outer Continental Shelf, the social and economic well-being and the health of human communities are tightly linked to the integrity and functioning of natural systems. Coastal communities face a variety of social, economic, and environmental stressors, and as environmental change and impacts from related stressors both continue and emerge, communities need better

information, tools, and methods to guide planning for, mitigation of, and adaptation to these challenges. Offshore oil and gas infrastructure and operations influence interactions between social, economic, and environmental systems in important ways. Characterizing these interactions, and how they are affected by oil and gas operations, provides a holistic basis for understanding and addressing local and regional environmental changes. Insights from this research are expected to benefit coastal communities in offshore oil and gas producing regions such as the Gulf of Mexico, as well as those in other regions where offshore oil and gas development is occurring or could occur.

This RFA challenges proposers to develop and test innovative approaches, technologies, and methods that can advance understanding of the interactions between social, economic, and environmental systems in coastal communities and how they may be influenced by offshore oil and gas operations. Projects must also seek to demonstrate how such understanding can improve how regions with offshore oil and gas operations plan for, mitigate, and adapt to environmental change and related stressors, including both chronic (e.g., sea level rise and hypoxia) and episodic (e.g., oil spills and hurricanes) disruptions.

What we are looking for:

Below are examples of the types of innovations that may be needed to advance this work. This list is not comprehensive but illustrative. It is intended to challenge proposers to consider the range of opportunities that could be supported through these grants. Applicants are strongly encouraged to collaborate with organizations with existing connections to end users, including decision makers and community leaders.

- Approaches (e.g., models, methods) for studying the interactions between social, economic, and environmental systems in coastal communities and regions, and how these interactions influence and are influenced by offshore oil and gas operations.
- Novel approaches or technologies for assessing how offshore oil and gas operations influence social, economic, and environmental conditions and how these influences may change in response to either episodic environmental disruptions (e.g., natural and human disasters) or chronic ones (e.g., habitat deterioration and sea-level rise) or both.

- Approaches to developing reliable and valid reference points to understand the influence of multiple stressors (e.g., sea-level rise or other impacts of climate change, habitat deterioration and coastal development) on coastal communities in the Gulf region and other Outer Continental Shelf regions.
- Research to explore how social structures and socio-cultural traditions/histories affect coastal community responses and adaptation to environmental change and related stressors.
- Research-informed demonstrations that explore innovative ways to accelerate the translation and application of research to practice.

To be considered responsive to this RFA, proposed projects must:

- Clearly describe how this project could break new ground in improving the capabilities of coastal communities with offshore oil and gas operations to anticipate, plan for, mitigate, and adapt to environmental change and related stressors.
- Clearly describe the potential interactions between offshore oil and gas operations and planning for, mitigating, and adapting to environmental change.
- Clearly articulate the project's relevance to human communities and ecosystems adjacent to the U.S. Outer Continental Shelf where offshore oil and gas operations occur or may occur.
- Clearly describe how the project is appropriate for Exploratory Grant funding (i.e., what is innovative about the proposed project?)

We will not consider funding for:

- Activities or programs that are simply a continuation of efforts that are already underway.