Workforce Development for the Energy Transition

REQUEST FOR APPLICATIONS



NATIONAL Sciences
ACADEMIES Medicine

GULF RESEARCH PROGRAM

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WORKFORCE DEVELOPMENT FOR THE ENERGY TRANSITION

The National Academies of Sciences, Engineering, and Medicine's <u>Gulf Research Program</u> (GRP) aims to contribute to the development of a prepared workforce and to increase the scientific literacy of the Gulf States' residents who will become the skilled leaders and professionals of tomorrow. This funding opportunity will enable project participants to acquire skills, knowledge, and credentials to enter careers as part of the future energy workforce. This workforce will support the industries and organizations leading the way in introducing new and emerging energy technologies into the economy.

Specifically, the GRP is seeking applications for sustainable, data-driven, industry-engaged projects that will provide education and training opportunities to students ages 16-25 and ready participants to become part of the future energy workforce. This funding opportunity is open to applicants from educational institutions, non-profit organizations, state and local governments, and tribal entities working in the U.S. Gulf States (Texas, Louisiana, Mississippi, Alabama, and/or Florida). The applicants should demonstrate how they will partner with local employers and industry associations to use data and evidence to identify skill gaps and labor market needs, design relevant curricula and credentials, and provide education, training, job placement, and/or retention services to participants that will enable those participants to acquire the skills and credentials necessary to join the future energy workforce.

A total of \$3M is available for this funding opportunity, with the number of applications being funded dependent on the quality and quantity of applications. Applicants must request between \$100,000 and \$750,000 for projects, commensurate with the scope of work, that are between 1 and 3 years in duration.

KEY DATES

- April 2, 2025: Online application submission opens
- April 30, 2025: Funding Opportunity Question and Answer Session
- June 24, 2025: Submission Help Office Hours
- June 25, 2025: Deadline for submissions of applications due by 5:00 p.m. Eastern Time
- September 2025: Award selection and notification
- November 1, 2025: Anticipated funding start date
- Online submission website: https://gulfresearchprogram.smapply.io/

AWARD INFORMATION

- Total funding available: \$3 million
- Specifications for award amount: Applicants may request between \$100,000 and \$750,000. All
 budget requests must be commensurate with the scope of work proposed.
- Award duration: Grants will be awarded to support projects between 1 and 3 years in duration.
- Estimated number of awards: Resources made available under this funding opportunity will depend on the applications received. The Gulf Research Program reserves the right to negotiate, some, one, or none of the applications received in response to this solicitation.
- Award notification: September 2025

PURPOSE

The Gulf Research Program (GRP) seeks to support Gulf States students, employers, and the economy by providing pathways for Gulf States residents aged 16-25 to enter high-quality jobs that can enable the energy future. The GRP expects the main outcome of this opportunity to be an increase in the number of skilled workers capable of contributing to the deployment of new and emerging energy technologies. Specifically, the GRP expects this funding opportunity to lead to an increase in the number and/or quality of existing workforce development initiatives, an expansion of existing workforce development initiatives to a greater number of participants or a new location, and/or the establishment of new workforce development activities, all of which will ready participants for the future energy workforce.

New and emerging energy technologies will help meet the forecasted increase in energy demand.

Implementing new and emerging energy technologies will require sufficiently skilled workers at all stages of the production, storage, and distribution of energy, as well as the manufacturing of all the necessary components to do so. Skilled technical workers, those that utilize science, technology, engineering, and mathematics (STEM) knowledge in their jobs and careers, but do not have a bachelor's degree, are an often overlooked yet vital part of the science and engineering enterprise that enable the benefits of STEM to reach the American people. Careers for skilled technical workers typically provide good-paying jobs with fewer formal education requirements. Those careers facilitate workers more quickly entering a workforce in which

¹ United States Energy Information Administration. (2025, February 11). Short-Term Energy Outlook. Retrieved February 14, 2025, from https://www.eia.gov/outlooks/steo/

they are more likely to have a higher paying job and lower unemployment relative to other jobs at a similar education level. ²

WHAT WE ARE LOOKING FOR

This grant opportunity aims to deliver skills and credentials to project participants such that they can enter jobs and careers in the future energy workforce.

Projects should include partnerships that leverage data to identify labor market needs and associated skills gaps. Partnerships between sectors (such as between academia, industry, local governments, and nonprofits) are highly encouraged. Applications should describe their approach to developing technical skills and conferring industry-recognized credentials on participants. Applications should explain how they will put participants on a reasonable path to a skilled technical career as well as the approximate number of participants that the projects expect to engage. Projects are encouraged to engage participants that could benefit the most from the project, training, and career opportunities. Projects should seek to "meet students where they are" and provide and budget for support services (such as transportation, tuition assistance, or personalized support and guidance), as needed.

PROJECT STRUCTURE

All proposed activities should focus on workforce development initiatives for ages 16-25 that will prepare project participants to join the future energy workforce. Applications that form partnerships across sectors (such as academia, industry, nonprofits, local governments) are highly encouraged. The focus of this funding opportunity is the acquisition of key skills and credentials by project participants for future energy jobs and careers. Applications should explain what data and evidence was used to forecast demand for careers as well as what data and evidence was used in the development of curriculum or projects that will prepare participants for the forecasted careers.

Applicants seeking funding to sustain and expand existing programming activities should include evidence that demonstrates significant positive impact(s) and the benefits of anticipated programmatic growth. Competitive applications include project partners, such as teachers and/or community members, throughout the project lifecycle, from design through implementation. Activities currently under consideration for funding from other sources are not eligible.

² National Academies of Sciences, Engineering, and Medicine. 2017. Building America's Skilled Technical Workforce. Washington, DC: The National Academies Press. https://doi.org/10.17226/23472.

Applicants should carefully review the Merit Review Criteria prior to submitting.

PROJECT EVALUATION

All applicants will be required to include details around a project evaluation plan within the application. Project evaluation should be handled by external professional evaluators or by internal staff who have significant experience with each type of evaluation and are not otherwise involved with the project. Applicants should include funding for project evaluation in their budgets. While the costs for project evaluation may vary considerably, 10 to 20 percent of the total budget is a reasonable estimate of costs associated with a comprehensive project evaluation. The GRP will ask recipients to submit fully developed and updated evaluation plans after the start date of their award.

The Gulf Research Program intends these project evaluations to:

- Help build an evidence-base that both grantees and GRP can use to understand and communicate their impact.
- Enable organizational learning and increase capacity to provide quality programming.
- Support the sharing of successes, challenges, and insights among funders, grantees, and stakeholders.

If awarded, Project Directors and Evaluators will participate in a Grantee Peer Learning Meeting at the close of the period of performance to share their evaluation results, project highlights, success stories, and lessons learned with their fellow grantees and GRP staff.

ELIGIBILITY

Eligible applicants are limited to institutions of higher education; K-12 public and independent schools and school systems; other nonprofits, including community-based organizations and informal education institutions, such as museums, zoos, and aquariums; state and local government agencies; and Indian tribal governments in the United States. Federal agencies, for-profit organizations, foreign institutions, and individuals are not eligible to apply or receive funding; however, they may participate as project partners. The applying organization will be referred to as the "applicant" hereafter. The individual who will lead the proposed project will be referred to as "Project Director" hereafter. All eligible applicants must have a valid federal tax ID number in order to apply.

The Program will not consider funding:

Applications for political lobbying or advocacy activities.

Project Directors usually initiate applications that are officially submitted by their employing organizations (the applicant). When initiating an application, the Project Director typically is responsible for ensuring the application meets all the requirements outlined by the Gulf Research Program as well as any requirements set by the employing organizations.

The Gulf Research Program requires individuals named as Project Director or Key Personnel in an application to adhere to the following:

- An individual may be proposed as Project Director in only one application. If an individual is
 proposed as Project Director in any application, they may also be proposed as Key Personnel in up to
 two additional applications.
- An individual not proposed as a Project Director in any application may be named as Key Personnel
 in up to three applications.
- It is the responsibility of each individual being named as Project Director or Key Personnel in any application to ensure that they are not named in more than three total applications.

Applicants can submit an application for this funding opportunity via the online application system.

Applications submitted by other means (e.g., mail, fax, or email) will not be considered. Application materials must be submitted in English.

Project Directors should review the application preparation and submission instructions and submit any questions to gulfgrants@nas.edu.

The Gulf Research Program strives to respond to applicants' questions within two business days, but cannot guarantee that applicants' questions will be answered before submission deadlines.

In order to best serve the communities of the region, the GRP aims to limit the overhead charges on educational grants. As such, overhead charges for this grant opportunity cannot exceed a total of 20%. This limit also applies to subawardee budgets.

APPLICATION SUBMISSION

Applicants can submit an application for this funding opportunity via the online application system.

Applications submitted by other means (e.g., mail, fax, or email) will not be considered. Application materials must be submitted in English.

Project directors should review the application preparation and submission instructions and submit any questions to gulfgrants@nas.edu prior to the submission deadlines. The Gulf Research Program strives to respond to applicants' questions within two business days but cannot guarantee that applicants' questions will be answered before submission deadlines.

APPLICATION GUIDELINES

All complete applications will be reviewed by an external review panel and evaluated using the <u>Merit Review Criteria</u>.

The application must provide the following information:

- 1) Project Team:
 - a) Project Director
 - i) ORCID (Open Research and Contributor ID)
 - b) Key Personnel
 - c) Applicant Overview (maximum 1500 words)
 - i) Describe the applicant (e.g., location, service area, mission)
 - ii) Describe the applicant's experiences with workforce development, particularly as it relates to the future energy workforce
 - iii) Describe the applicant's existing workforce development efforts
 - d) Involvement of Project Director or Key Personnel in other applications related to this funding opportunity
- 2) Project Details:
 - a) Project Title (maximum 15 words)
 - b) Project Key Words (maximum 10 words) please highlight key features of your application that make it unique, as well as the age ranges targeted
 - c) Project Summary (maximum 250 words)
 - d) Project Timeline (excel upload)
 - e) Project Description (maximum 4,000 words total)
 - i) Describe the proposed workforce development initiative; (maximum 1,000 words)
 - ii) Discuss how the proposed workforce development initiative will (1) create partnerships across sectors (such as academia, industry, government, nonprofit) and/or institutions; (2) use data and evidence to forecast future energy workforce needs and explain the importance of these careers to the local community; (3) utilize data and industry input to provide effective, thoughtful educational experiences; (4) provide participants with the necessary skills and credentials for the future energy workforce; (5) engage participants who could most benefit from the skills and credentials conferred, if applicable; and (6) provide support services (such as transportation,

- tuition assistance, or personalized support and guidance) and/or job placement and retention assistance. (maximum 2,000 words)
- iii) Discuss the pedagogical approach to the proposed project; (maximum 1,000 words)
- 3) Project Evaluation (maximum 750 words total)
 - a) Describe your goals and anticipated outputs and outcomes related to (1) providing participants with key technical knowledge, skills, and certifications; and (2) providing support services to ensure participant success, such as personalized career guidance and support. (maximum 500 words)
 - b) Describe the qualifications of the evaluator(s), or the qualifications that you are looking for in an evaluator and how you plan to find that evaluator. (maximum 250 words)
 - i) Project evaluation should be handled by external professional evaluators or by internal staff who have significant experience with each type of evaluation and are not otherwise involved with the project. Applicants should include funding for project evaluation in their budgets. While the costs for project evaluation may vary considerably, 10 to 20 percent of the total budget is a reasonable estimate of costs associated with a comprehensive project evaluation. The GRP will ask recipients to submit fully developed and updated evaluation plans after the start date of their award.
 - c) At the end of the application, you will have the opportunity to upload additional files, including a logic model. Uploading a logic model is not mandatory but can be helpful in communicating the goals of your project.

4) Proposed Budget

- a) Total Budget Requested
- Budget Justification: Please submit a budget justification. A <u>sample budget justification</u> is provided (maximum 2,000 words)
- c) Budget Form: Download the <u>budget template</u>. Complete this form to provide information on the proposed budget. Budget requests should be developed commensurate with the support needed to achieve the project goals. Adequate compensation should be provided for community-based organization partners and community members for the effort they are contributing to the project. Budget requests should, if relevant, include competitive teacher stipends commensurate with the proposed activities, as appropriate.

5) Other Attachments

- a) Data Management Plan: Please refer to GRP's <u>Data Management Policy</u> for guidance on the development of the project Data Management Plan (A description of how data will be collected, managed, stored, made accessible, and protected throughout the project. (Maximum 1,500 words)
- b) Resume(s): Resumes are required for the Project Director and every individual identified as a Project Team member. A resume may be included for the evaluator. Resumes may not exceed two pages per person. All resumes should be combined and uploaded as a single PDF document. Do not include resumes for individuals not named as a Project Director or Project Team member.

- c) Collaborators and Other Affiliations Form: The purpose of this form is to help the GRP eliminate potential conflicts of interest during reviewer recruitment. Download the <u>Collaborators and Other</u> <u>Affiliations form</u> and complete it to provide information on the following:
 - i) All persons (including their current organizational affiliations) who are currently, or who have been collaborators (i.e. an individual with whom you work closely to co-design or conduct a project) or co-authors with the individual on a project, book, article, report, abstract, or paper during the 48 months preceding the submission of the application.
 - ii) The individual's own graduate and postdoctoral advisor(s) and their current organizational affiliations.
 - iii) A list of your past and current advisees (including their current organizational affiliations)
- d) Current and Pending Support from Other Sources Form: Download the <u>Current and Pending Support</u> from Other Sources form. Applicants must provide information on the current and pending support of the Project Director, and other Project Team members, if applicable, and upload it to the online application system. The form calls for required information on current and pending support for ongoing projects and applications. All current project support from whatever source (e.g., federal, state, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the project personnel and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support.

MERIT REVIEW CRITERIA

It is important that all applications clearly describe how the anticipated outputs and outcomes are appropriately aligned to the goals of the proposed project.

All complete applications will be evaluated on the basis of the Merit Review Criteria described below. Applicants should consider the application Guidelines as well as Merit Review Criteria in the development of their application. Reviewers may raise additional issues that are not covered by the criteria.

Partnerships (30%)

- To what extent does the proposed project establish partnerships between sectors (e.g., academia, industry, local governments, non-profits) and institutions?
- To what extent does the proposed project engage industry to ensure that workforce development initiatives will lead participants to actual jobs?

Scientific and Technical Merit (30%)

- To what extent does the proposed project derive its strategy and pedagogy from quality data, methods, and resources?
- To what extent does the proposed project forecast future workforce needs and plan to respond appropriately?
- To what extent does the proposed project prepare participants with the skills to acquire an identified skilled technical career?
- To what extent are the anticipated outputs and outcomes clearly described and appropriately aligned to the goals of the proposed project?

Sustainability and Scalability (20%)

- To what extent does the proposed project have a reasonable path towards sustainability beyond the life of the grant?
- To what extent could the proposed project be effectively scaled if successful?
- To what extent could the proposed project be replicated by others wanting to follow this project's success?
- To what extent does the proposed project provide sufficient participant support services that will
 contribute to participant and project success (such as transportation to training facilities, tuition
 assistance, or personalized support and guidance)?

Project Team (10%)

- To what extent are Project Team members and Collaborators well-qualified in their experience, knowledge, and skills to ensure the completion of a successful project?
- To what extent are the evaluator(s) well-qualified in their experience, knowledge, and skills to ensure the completion of a successful project evaluation?

Budget (10%)

- To what extent is the budget commensurate with the proposed activities?
- To what extent is the budget being directed towards ultimately supporting the educators and the participants?
- To what extent is the budget sufficiently supporting the scope of the evaluation planned?

RESEARCH INVOLVING HUMAN SUBJECTS

All projects involving human subjects must be submitted to an institutional review board (IRB) for review and either receive IRB approval or be granted exemption from human subjects regulations before an award can be made. Proposers should file their application with their local IRB at the same time the application is submitted to the Gulf Research Program so that any approval procedure determined as necessary will not delay the award process. An application may be submitted to the Gulf Research Program prior to receiving IRB approval or being granted exemption; however, if the application is selected for funding, the award will be made conditional upon IRB granting approval or exemption from human subjects regulations within 60 days of the notice of conditional award. If a proposed project involving human subjects is granted exemption from human subjects regulations [see 45 CFR §46.101(b)], the applicant must provide documentation that an IRB (or the appropriate authority other than the Project Director or Key Personnel) has declared the project exempt from the human subjects regulations. Documentation should include the specific category justifying the exemption. Organizations without internal access to an IRB must seek approval or exemption from an independent review board or other appropriate authority. Visit our website for more information about human subjects regulations.

DATA MANAGEMENT

The GRP's <u>Data Management Policy</u> applies to this RFA. To facilitate sharing of data and information products, all applications submitted to the GRP must include a data management plan and follow FAIR guiding principles (FAIR stands for "Findable, Accessible, Interoperable, Reusable." To learn more about FAIR guiding principles refer to the National Academies report "Open Science by Design: Realizing a Vision for 21st Century Research").

The GRP follows the federal government's definition of data in the Office of Management and Budget (OMB) 2 Code of Federal Regulations (CFR) Section 200.315: "...the recorded factual material commonly accepted in the scientific community as necessary to validate research findings." Information products may include documents (i.e., reports, workshop summaries, etc.), multi-media curricula for education and training (i.e., video and/or online tutorials, manuals, and handbooks, etc.), and other media and communication platforms. Even in the unlikely case in which no data or any other information products will be produced, a plan must be submitted that states "No data or information products are expected to be produced from this project."

The GRP's <u>Data Management Policy</u> and <u>Data Management web page</u> provides information on what must be included in the data management plan submitted as part of an application.

MAKING THE AWARD

Selection Notice

The GRP reserves the right to select all, some, one, or none of the applications received in response to this solicitation.

When the evaluation of an application is complete, the project director will be notified that (1) the application has been selected for funding pending contract negotiations, or (2) the application has not been selected. These official notifications will be sent via email to the project director identified on the application. If an application is selected for award, the GRP reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to, indirect cost information or other budget information.

Award Notice

The GRP transmits award notices to organizations via e-mail. The award is not finalized and the National Academies of Sciences, Engineering, and Medicine is not obligated to provide any funding until a signed copy of the award agreement has been received by the Academies.

Grant Periods

Upon receipt of the award notice, the awardee should note the effective date and the expiration date. The effective date is the date specified in the grant notice on or after which expenditures may be charged to the grant. Charging expenditures to the grant prior to the effective date is prohibited. The expiration date is the date specified in the grant notice after which expenditures may not be charged against the grant except to satisfy obligations to pay allowable project costs committed on or before that date. Once an award is made, the effective date cannot be changed. The expiration date may be changed as a result of approval of a request for a no-cost extension. If approved, the GRP will issue an amendment to the grant.

If additional time beyond the performance period and the established expiration date is required to assure adequate completion of the original scope of work with the funds already made available, the awardee may apply for a one-time, no-cost extension of up to six months. A formal request must be submitted to the GRP at least 45 days prior to the expiration date of the grant. The request must explain the need for the extension and include an estimate of the unobligated funds remaining and a plan for their use. This one-time extension will not be approved solely for the purpose of using the unliquidated balances.

POST-AWARD MANAGEMENT

Coordination with GRP

After the award is conferred, grantees shall coordinate with the GRP to formally initiate the project. GRP staff will periodically request status meetings during the project implementation phase to discuss progress and any unanticipated developments that may affect the project outcomes as specified in the grant agreement. These interactions will help ensure successful management of the grant.

Reporting Requirements

After an award is conferred, the grantee shall provide an annual financial report to the GRP to report on grant expenditures to date under the grant. The grantee shall provide an annual written report to the GRP to report on activities being carried out under the grant, including but not limited to project accomplishments to date and grant expenditures. No later than 60 days after the expiration of the award, the grantee shall provide in writing a final grant report. The final grant report shall address the original objectives of the project as identified in the grant application, describe any changes in objectives, describe the final project accomplishments, and include a final project accounting of all grant funds. Once a final project evaluation report is completed, the grantee shall provide the final evaluation report to the GRP in a reasonable and timely manner.

If awarded, Project Directors and Evaluators will participate in a Grantee Peer Learning Meeting at the close of the period of performance to present their evaluation results, grant highlights, success stories, and lessons learned with their fellow grantees and GRP staff.

Data Management

Implementation of a data management plan will be monitored through the annual and final report process. All data, including modeled and observational data when available, shall be made available with minimal delay to the GRP for each dataset, through submission to the Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC) and/or other appropriate national repositories as approved by GRIIDC for use by intermediate and end-users. Even when no data or any other information products will be produced, a plan must be submitted that states "No data or information products are expected to be produced from this project." Please see the GRP's Data Management Policy and Data Management web page for more information on this requirement.

SCIENTIFIC INTEGRITY

A fundamental purpose of the GRP is to facilitate the advancement of knowledge and the application of science to address challenges relevant to the GRP's mission. All activities of the GRP will be conducted to meet the highest standards of scientific integrity. All grantees have a responsibility to use the funds wisely.

GRANT AGREEMENT TERMS AND CONDITIONS

Please review the Grant Agreement prior to submitting an application. It is the policy of National Academies of Sciences, Engineering, and Medicine to entertain potential modifications to the Grant Agreement only under the most exceptional circumstances. Rather, successful applicants are strongly encouraged to sign the Grant Agreement as presented.

- View a sample grant agreement if the applicant is a public institution.
- View a sample agreement if the applicant is a private institution.

ABOUT THE GULF RESEARCH PROGRAM

The National Academies' Gulf Research Program (GRP) is an independent, science-based program founded in 2013 as part of legal settlements with the companies involved in the 2010 Deepwater Horizon disaster. The GRP's mission is to develop, translate, and apply science to enhance the safety of offshore energy, the environment, and the wellbeing of the people of the Gulf region for generations to come. It supports innovative science, guides data design and monitoring, and builds and sustains networks to generate long-term benefits for the Gulf region and the nation.