

# Shale Alliance for Energy Research (SAFER)

The mission of SAFER will be to work with government, natural gas producers, and providers of services in regard to the development of Shale Gas resources in the State of Pennsylvania. SAFER will focus on technology, analysis and education to assist in the safe and dependable development of our State's shale gas resources.

## **Through the development of its shale gas resources Pennsylvania has a tremendous opportunity to:**

- Improve our nation's energy security by increasing supply of a clean domestic energy product
- Create thousands of good high paying jobs through the responsible development of the Marcellus Shale to produce trillions of cubic feet of natural gas

One way to demonstrate that the State is serious about the responsible production of this valuable resource is to assist in developing the best processes, procedures and technologies for ensuring environmentally sound extraction through a research, testing and analytical effort to:

- > Characterize and analyze unconventional and shale gas resources
- > Develop plans for resource development
- > Evaluate and integrate technology, procedures and processes
- > Support the development of new technologies which increase resource potential by improving environmental footprint
- > Deliver education to the public about the development of the our shale gas resources

A program deployed through competitive solicitation would

- Catalyze state, regional and national resources to develop the best information and solutions to develop shale gas resources in Pennsylvania
- Provide a means to perform collaborative R&D to the benefit of the entire State of Pennsylvania
- Showcase the intent of the State to manage and develop it's shale gas resources in a responsible and thoughtful way

- I. **Establishment:** The Pennsylvania State University (PSU), Gas Technology Institute (GTI) and Pittsburgh University (UPitt) will create a consortium of stakeholders including public universities governmental entities, corporate and non-profit companies and other interested parties whose mission is the development of technology, analysis, processes and education to augment the safe and responsible production of natural gas within the Marcellus Shale and other geologic resources beneath Pennsylvania.
- II. **Name and Mission:** The Shale Alliance for Energy Research (SAFER) is created to facilitate research to assist with the development, demonstration and commercialization of technologies to improve the environmental footprint and production performance of Marcellus Shale gas wells, and other undeveloped shale gas plays; to provide analysis, testing and education in a collaborative and supporting format with academia, industry, non-profits and government. Its functions shall pertain to natural gas science and engineering, and the dissemination of new information to the scientific community, industry, and the general public.
- III. **Membership:** SAFER Board of Directors may establish memberships at various levels and corresponding fees and benefits, such as: Charter or Founding members, Full Members, Affiliate Members, Supporting Members, and Endorsing Members.
- IV. **Governance:** SAFER shall be governed by a Board of Directors, and Executive Committee, in conjunction with a Technical Advisory Committee.
  - a. The *Executive Committee* shall include one representative of each of the founding members (PSU, GTI and UPitt) and two other Board members selected by the full Board of Directors. The Chairman of the Executive Committee shall also serve as Chairman of the Board of Directors, and such office shall rotate annually among the members of the Executive Committee. The Board of Directors shall have 11 representatives from the membership of the organization. Among its other responsibilities, the Executive Committee shall develop a review process and make recommendations to the Board on all proposals for project funding.
  - b. The *Technical Advisory Committee* shall provide research ideas and advise the Executive Committee and Board of Directors regarding the relevance of the scientific merit of the Alliance's request for proposals research, development and educational programs.

- V. **Meetings:** Membership meetings shall be organized by the Chairman of the Board, who shall seek input from the members to determine the location and dates of meetings to conduct SAFER business. At least one such meeting will be dedicated to the review of incoming project proposals seeking funding, and review of previously funded SAFER projects.
- VI. **Program Funding:** Guidelines for proposals seeking funding from SAFER shall be determined and adopted by the Executive Committee in consultation with the Board of Directors, and Technical Advisory Committee. The Executive Committee shall develop Request for Proposals (RFPs) and solicit proposals on an annual basis.
- VII. **Fiscal Agent:** The Pennsylvania State University shall serve as the fiscal agent and have ultimate accounting and financial reporting duties, and sole legal authority related to the contracting, administering and expending of funds. The Pennsylvania State University under the direction of the Chairman of the Executive Committee shall manage and support the daily operations of the Alliance.
- VIII. **Intellectual Property:** IP rights shall be determined through applicable Federal or State laws, and industry and university standard procedures, and shall be delineated and incorporated into the Consortium By-Laws.

A dynamic shale gas R&D and education program will provide the necessary resources to assist in robust technology improvement and meaningful testing and analytical work, while Pennsylvania based entities and Universities could utilize these funds to provide solutions and education thus creating jobs to assist in the responsible development of this important resource.

The State program could also attract co-funding thus leveraging additional R&D dollars for maximum benefit to the State of Pennsylvania.