



Seed Funding Opportunity

The **University of Pittsburgh's Center for Energy** (www.energy.pitt.edu) is conducting a competition for seed grants of up to \$40K each. We anticipate 2 – 3 awards, and the funds can be expended over a period up to two years, beginning on March 1, 2010.

The purpose of the grants is to enable research that could lead to longer-term funding from government agencies, such as NSF and DOE. For example, DOE-EERE (Energy Efficiency and Renewable Energy), supports research into technologies that have strong promise of actual implementation, so the seed funding can be used to fill a gap between basic and applied science. More information about the various DOE programs can be found at <http://www.energy.gov/forresearchers.htm>. The proposed research should also be aligned with the Center for Energy's strategic areas of research focus, which are:

Energy efficiency, delivery, and reliability – Almost certainly, the greatest immediate opportunity for impacting energy consumption and carbon emissions is in energy efficiency. Up to 70% of today's electricity consumption can be eliminated through the utilization of energy efficient devices, appliances, and programs — at a cost less than what we pay for electricity today. Efficiency can become much more feasible and economical with advances in technologies, delivery methods, designs, and systems integrations. An important component of these advances will be necessary improvements in the reliability of power and energy systems, together with the development and implementation of smart grid systems.

Energy diversification – The most widely used energy sources today are coal, oil, and nuclear power. Practicable alternative energy sources can be developed by diversifying and ultimately hybridizing energy technologies in novel ways that are less expensive and less environmentally damaging. This can include such hybrid systems as the storage of renewable-derived energy using high-capacity batteries, the greater use of hydropower, the integration of higher penetrations of wind energy, and environmentally improved conversion of coal to fuel using nuclear-derived heating.

Advanced materials for energy-related applications – Many limitations exist because of the absence of materials that can withstand the extreme conditions necessary for efficient and/or extended energy production and use. Structural and functional material improvements will be an integral part of many technical advances in the efficient generation, storage, and delivery of power and energy.

By accepting seed funding from this program, the investigator(s) will agree that any consequent proposal will be linked to the Center for Energy. Any publications or intellectual property resulting from these funds should acknowledge support from the Center.



To apply, please submit a white paper that includes the information listed below, **before February 1**, to the e-mail address seedgrnt@pitt.edu. The white paper should not exceed three pages (single-spaced if necessary; minimum 11 point font size) and should be submitted in a PDF format. Final selection will be based on selected brief oral presentations that will be scheduled later.

White Paper Outline

- Title of the project.
- Name, email, phone number and affiliation of the principal investigator(s). *Note:* The PI(s) must be full-time, tenure-stream and tenured faculty members.
- Scientific or technical purpose.
- Research to be carried out with the funds.
- Reason(s) why the research may make a future proposal more viable.
- Relationship between this project and previous or ongoing research.
- Budget. *Note:* Overhead is not applicable to this budget, but personnel benefits are. Personnel support should be limited to students and postdocs.

If you have any questions, please contact one of the following:

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