



Request for Proposals from Stanford Faculty

From

The Precourt Energy Efficiency Center (PEEC)

(Formerly known as the Precourt Institute for Energy Efficiency, PIEE)

Issued: March 1, 2009

Proposals Due: May 15, 2009

Introduction

As part of its charter to identify and analyze potential working solutions for energy efficiency technologies, processes, systems, policies, and behavioral changes, the Precourt Energy Efficiency Center (PEEC) is pleased to seek proposals from Stanford faculty for new research in all of its current high priority areas:

- Buildings: commercial and residential building design, construction, operations, and embedded technologies, including building energy models and other design tools
- Transportation/Vehicles: technology and regulation of passenger cars and light duty trucks; transportation systems analysis; vehicle electrification
- Systems: systems analysis, such as micro-grid/utility/home generation linkages, electricity storage/home generation/usage/real time metering tradeoffs, grid/vehicle/home electricity interactions, transport/generation/usage location choices
- Behavior: behavioral research, analysis, and intervention
- Modeling: economic modeling of the energy system, institutions, and economic impacts, including process modeling of use
- Policy: policy design, policy analysis, individual faculty advocacy; pricing policies, policy interventions, R&D policy

Research in any specific area or combination of these areas is of particular interest. Many projects can be expected to cut across several of these areas. PEEC is also particularly interested in energy efficiency projects whose anticipated results could be implemented in the near term, including projects that would help California meet its carbon reduction goals under AB 32. In addition, PEEC is willing to consider innovative research in other areas of energy efficiency. If you have a proposal idea and would like a judgment on how well it fits within PEEC's goals, please contact John Weyant or Jim Sweeney by E-Mail or telephone (contact information at the end of this RFP) to discuss.

To be successful, a proposal must satisfy the following Precourt Energy Efficiency Center mission compatibility criteria which will be used by reviewers of the proposals:

- 1. a well thought out research plan that has an excellent analytical foundation, but is also realistic and pragmatic about how to implement its results;**
- 2. the potential for economic implementation, say by increasing benefits or reducing costs, including reasonable values for social benefits;**
- 3. the potential to reduce energy use at a significant scale economically if the ideas developed in the research are successful;**
- 4. a clear description of the anticipated outcome of the project and an assessment of the amount of energy it could save.**

Priority will be given to proposals involving researchers who have not previously been active in energy research. Only Stanford faculty who are eligible to act as the Principal Investigator may respond to this solicitation. Priority will also be given to projects if there is a good prospect that the project will be continued based on external funding beyond the period of PEEC funding.

Project Funding and Duration

Maximum seed funding for each proposed project is \$140K and for a period of performance of up to twelve months. We anticipate that the largest portion of the budgets will be for graduate student stipends and benefits. Follow on funding in subsequent years may be available for projects whose initial results look particularly promising.

The projected maximum combined support total for all new projects proposed in response to this RFP is \$1.0 Million.

Please note: PEEC Grants require that the primary Principal Investigator (PI) be a Stanford faculty member. Co-PIs may be from external academic institutions (upon approval). Neither internal Stanford nor external institution overhead charges can be included in the budget for any proposed project.

Project Reporting

PIs of funded projects will be expected to prepare a final project report or presentation, and project PIs and students will be expected to participate in at least one technical review session, workshops in related areas, and other activities that report on the research being performed. Papers/abstracts will be posted on the PEEC website.

Guidelines and Information for Proposed Research Projects

Proposal Format

We have adopted a 10-page limit for the proposals (all materials included), but would encourage the proposers to be as concise in their exposition as possible. The details of the formatting are left up to individual authors, but the text, figures, tables, references, budget, and budget justification must be included in the 10-page limit. The PEEC is converting budgeting to conform to Stanford's academic year. Thus, for this solicitation all budgets should commence on October 1, 2009, and run through no later than September 30, 2010. In addition to this, and not subject to the 10-page limit, a brief background on the Principal Investigators that will be associated with the proposed work, limited to one page per PI, should be included.

Proposal Review

The proposals submitted in response to this solicitation will be screened for relevance to the PEEC mission by PEEC staff and then reviewed by members of the PEEC Faculty Steering committee. In cases where the members of the steering committee lack knowledge in the proposed area of investigation, the opinions of additional experts at Stanford or outside of it may be sought. The members of the steering committee will be asked to assemble a prioritized list of all proposals received by PEEC in response to this request for proposals that they believe should be funded if sufficient funding is available. In preparing proposals the PEEC steering committee should be considered to be the audience.

The objective of the review process is to identify high quality projects that are consistent with PEEC goals. Reviewers will be asked to specifically address the following questions in their evaluations:

- Is the proposed research of high quality? What are the principal strengths of the proposed work? Are there weaknesses in the proposed research?
- Is the proposed work directly targeted on PEEC's central goal of identifying plausible pathways towards reducing energy use economically at a significant scale if the ideas developed in the proposal are successful;
- Are the investigators well qualified to carry out the research?
- Where does the proposed research fit in the spectrum of work going on now in the research area?
- Does the research have high potential for follow-on funding from external sponsors?
- Does the proposal involve researchers who have not traditionally worked in the energy area?
- Could the proposal result in actions that could be implemented in the near term or in support of the AB 32 greenhouse gas reduction goals in California?
- Is the proposed budget and schedule reasonable?
- Should the proposed work be funded?

Submission Procedure

The cover letter, proposal and budget can be submitted electronically in the form of a PDF file to tammy.goodall@stanford.edu. It should be sent by the submission deadline, using standard Stanford procedures (e.g., routing all required proposal components through normal submission channels in each school to the Office of Sponsored Research) and **must include an official budget and budget justification**.

An electronic copy of the proposal will be sent to the steering committee for evaluation and a copy will be retained in the PEEC files.

If you prefer to submit a hardcopy in addition, it should be sent to:

*Ms. Tammy Goodall
Assistant to the Director
Precourt Energy Efficiency Center
473 via Ortega, Room 177
Mail Code: 4205*

Submission receipt is encouraged.

Awards

It is anticipated that awards based on this solicitation will be announced by June 15, 2009, and projects selected for award may begin at the beginning of the fall quarter. Award decisions do not require further approval.

Contacts

Questions about any aspect of this RFP are welcome. For technical or programmatic issues, please contact:

Prof. James L. Sweeney, Director: jim.sweeney@stanford.edu (3-2847)

Prof. John P. Weyant, Deputy Director: weyant@stanford.edu (3-3506)

For issues associated with the submission procedure, budgets, and subcontracts, submission receipt, please contact:

Ms. Tammy Goodall: Assistant to the Director: tammy.goodall@stanford.edu