INFORMAL REQUEST FOR PROPOSALS

ON

Innovative Tools for Environmental Assessment, Monitoring and Mitigation for Potential Future Energy Scenarios for California: An Exploratory Study

January 27, 2012

ELIGIBILITY

This RFP is open only to University of California and California State University researchers.

OVERVIEW

The California electricity system will change drastically over the next few decades in response to the State's mandate to increase the contribution of renewable energy sources to the electricity mix while meeting state greenhouse gas emission reduction goals. Although the State's electricity system is already being significantly transformed due to the increasing contribution of solar and wind energy development, even greater penetration of these and other renewable energy technologies in the electricity system will be needed to meet California's energy and greenhouse gas goals. This will require energy development in areas beyond the reach of existing energy development, as well as the deployment of what are today's emerging renewable energy technologies, both of which may raise unique environmental challenges.

A major challenge facing the deployment of renewable energy in California has been a lack of background environmental data needed to better estimate potential impacts and to design sound mitigation measures, e.g., solar generation in sensitive desert habitats. In the future, it is likely that today's emerging clean energy technologies will play a major role in the State's future energy system and that renewable energy development will occur in areas not historically utilized for energy generation. Therefore, it is important that environmental information relating to future renewable energy deployment be initiated so that decision makers can select or influence energy development following one of the most environmentally benign paths.

The California Institute for Energy and Environment (CIEE), in collaboration with the California Energy Commission (Commission), is seeking proposals from University of California and California State University researchers for exploratory research that will provide information, tools and methodologies to improve the assessment, mitigation and monitoring needed to address the environmental effects of future energy development in California.

RESEARCH FUNDING OPPORTUNITY

The main goal of this solicitation is to support an early exploration of methods and tools that could be used to establish environmental baselines and/or to monitor impacts of portfolios of large energy projects and portfolios consisting of numerous relatively small energy projects that may be deployed within the next 30 years. Such an early exploration is needed due to the long lead time needed to bring research to completion and to ensure decision makers have the appropriate information and tools to balance environmental and energy needs. This solicitation is particularly designed to address potential environmental barriers or issues associated with electricity generation involving emerging renewable energy technologies (e.g., energy crops for biomass power generation, offshore wind, wave energy) or deployment in areas not historically utilized for energy or from new areas in California (e.g., areas for which Habitat Conservation Plans would need to consider electric generation development).

It is important to note that it is not expected that the selected projects provide needed environmental baseline information. We are seeking exploratory projects to test the feasibility of new methods and tools. Future PIER work would involve the use of the methods/tools that pass this feasibility test to be developed, when needed.

It is anticipated that we will select up to five proposals, each one with a funding of up to $150,000. This is a wide-open solicitation seeking a proof of concept of methods and tools that could be used to provide a baseline and/or to monitor the performance of emerging energy facilities.

PREPARATION OF PROPOSALS

The Proposals Must:

- Specifically address electricity generation. Research aimed at fuels for the transportation sector will not be accepted.
- Clearly explain how the proposed research effort meets the solicitation objectives.
- Clearly describe the proposed research project and the current state of knowledge in the scientific area of the project.
- Clearly describe the purpose, scope and goals of the proposed research, and outline the issues the project will address.

- Summarize the technical approach and principal tasks required to accomplish project goals and objectives.

- Include an estimated categorical budget.

Overall Length of Proposals

Proposals should be no more than 6 pages in length, exclusive of team resumes, high-level budget, and copies of journal papers or other type of supporting information. Individual resumes should be no more than 1 page in length. Full formal proposals are not necessary.

Submission of Proposals

Proposals should be submitted in portable document format (pdf) as attachments to e-mails and sent to ciee.solicitations@uc-ciee.org. The deadline for submission is 5:00PM PST on **February 17, 2012**. Late proposals cannot be accepted. A notification of a preliminary selection of proposals will be announced by February 24, 2012 to all researchers who submitted proposals. A final successful outcome can only be assured after all the needed approvals are obtained from PIER management, the Energy Commission, and the Department of General Services as indicated below.

Administrative questions can be submitted by email to ciee.solicitations@uc-ciee.org by February 6 and will be answered in a Q&A email on February 10. If want to receive the Q&A email, please send your request to ciee.solicitations@uc-ciee.org. Only administrative questions will be answered. We will not respond to any technical questions.

CIEE will work with the principal investigators for the selected proposals to generate the information and documents that will be needed for a contract (Interagency Agreement) with the California Energy Commission's Public Interest Energy Research (PIER) Program. Approval for this proposed overall study is contingent on successful development of the contract package, and approval by the California Energy Commission and the Department of General Services.