THE OHIO STATE UNIVERSITY INSTITUTE FOR ENERGY AND THE ENVIRONMENT

Research Funding Opportunity

Program Title	NOI Information and Communication Facility Energy Efficiency
Solicitation/RFP Code	DE-PS36-09GO99023
Funding Organization(s)	DOE, EERE, ITP
Funding Amount(s)	TBA
Application Deadline(s)	TBA – RFP expect in March 2009

Program Summary

Each proposal must address only one of these areas of interest. The areas of interest are:

A. Information and Communications Technologies Research & Development For Energy Efficiency

1. Proposals for research and development in the following areas are sought:
2. Equipment Hardware and Software: Minimization of heat generation to save cooling energy by developing novel systems (i.e., new electronic circuitry which will use less energy by increasing chip output per unit of power used) or are impervious to heat, or by the use optics only.
3. Cooling :Cooling is believed to account for a third of all power consumed by information technology, telecommunications, and data centers.
4. Power Supply Efficiency: R&D high-eff. power conversion circuits to optimize server-based data center and telecom equipment, special purpose chips, multiphase clocking, ternery/other processing modes, lower-power chip, optical switching to eliminate many conversion steps & losses, superconducting components, and piezoelectrics to incorporate into micro-mechanical air conditioning for point of load cooling.

Each proposal MUST include organizational participants capable of and experienced in 1) research, 2) manufacturing the technology proposed, 3) bringing the technology to the end user through sales and marketing, and 4) serving as an end user of the technology proposed.

Each R&D project will be funded for maximum of three (2) years, with one or more budget periods.

B. Demonstration and Field Testing of Highly Energy Efficient and Pre-commercial Technologies in Data Center or Telecommunication Facilities - DOE is interested in field testing and validation of the energy performance of the technologies that show the potential to improve energy efficiency while not compromising reliability. Proposals must include plan for the technologies to be demonstrated and the adoption of other best energy management practices to improve energy intensity performance (by more than 25 % and have a Data Center Infrastructure Efficiency (DCIE = IT energy / total facility energy usage) of 0.80 or greater.

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