Memorandum of Understanding

between

The Regents of the University of California, as Management and Operating Contractor for Lawrence Berkeley National Laboratory

and

China Institute of Electronics

and

China Electronics Standardization Institute

Concerning Collaborations in the Field of Data Center Energy Efficiency

This Memorandum of Understanding (MOU) is among The Regents of the University of California, in its capacity as the manager and operator of the Lawrence Berkeley National Laboratory (LBNL), China Institute of Electronics (CIE), and China Electronics Standardization Institute (CESI). The LBNL is a U.S. Department of Energy National Laboratory managed and operated by The Regents of the University of California pursuant to Contract No. DE-AC02-05CH11231 (Contract 31). CIE is a Chinese national association responsible for promoting the development and deployment of electronic and information technology. CESI is a Chinese national standardization institution.

LBNL, CIE and CESI are collectively herein referred to as "Participants" or separately as "Participant."

1. Objective

The objective of this MOU is to explore potential future collaboration among the Participants in the field of data center energy efficiency.

2. Areas of Planned Cooperation

The Participants express their intention to collaborate, promote information exchanges, and facilitate potential future joint research and dissemination activities in one or more of the areas listed below (items i - iv), with any future collaborative research in these areas to be undertaken pursuant to an appropriate written agreement therefor.

- i. Advanced energy efficient technologies and solutions
- ii. Data center energy efficiency measuring protocol and methodology as harmonized with

MOU between The Regents of the University of California, China Institute of Electronics, and China Electronics Standardization Institute

- international practices
- iii. Data center energy efficiency performance standards
- iv. Building capacity for data center energy efficiency improvement

The scope of above activities and cooperation may be changed or extended to other areas by written agreement of the Participants.

3. Designated Representatives

- A. To administer the implementation of this MOU, each Participant should designate one principal coordinator, through whom all requests and plans of that Participant should be made.
- B. The designated representatives may hold meetings when necessary to discuss matters related to cooperation under this MOU.
- C. The designated representative for LBNL is the Environmental Energy Technologies Division (EETD) Director, or LBNL designated principal coordinator. The designated representatives for China Institute of Electronics (CIE) and China Electronics Standardization Institute (CESI) are Zong Fang and Hu Jingyi, respectively, or other CIE and CESI designees.

4. Commencement, Modification and Discontinuation

- A. Cooperative activities under this MOU may commence upon signature of all Participants and continue for a five (5) year period, unless discontinued in accordance with paragraph 2 of this Section 4.
- B. The Participants may discontinue this MOU at any time in writing. A Participant that wishes to discontinue its participation in this MOU should endeavor to provide at least thirty (30) days written notice to the other Participant(s).
- C. This MOU may be modified in writing by mutual consent of the Participants, and may be extended for additional periods.

5. General Considerations

- A. Each Participant should conduct the activities contemplated by this MOU in accordance with all applicable laws, regulations and other requirements to which it is subject, and international agreements to which its government is party, including, without limitation, export control laws and environment, health and safety laws and regulations.
- B. This MOU does not create any legally binding obligations.
- C. The conduct of cooperative activities contemplated by this MOU is subject to the availability of funding, personnel, and other resources.
- D. Each Participant is to be responsible for the costs it incurs in participating in cooperative activities under this MOU.

MOU between The Regents of the University of California, China Institute of Electronics, and China Electronics Standardization Institute

Signed in triplicate in the English and Chinese languages.

THE REGENTS OF THE

UNIVERSITY OF CALIFORNIA, LAWRENCE BERKELEY NATIONAL LABORATORY		OF ELECTRONICS		STANDARDIZATION INSTITUTE	
By:	674 L	By:	13 × 13	By:	Start
Name:	Dr. A. Paul Alivisatos	Name:	: Xiaolan Xu	Name:	Xinhua Zhao
Title:	Laboratory Director	Title:	Secretary General	Title:	Vice President
Date	9/20/13	Date	9/29/13	Date	9/25/13

CHINA INSTITUTE

CHINA ELECTRONICS