

**Memorandum of Understanding**  
**between**  
**The Regents of the University of California, as Management and Operating Contractor for**  
**Lawrence Berkeley National Laboratory**  
**and**  
**Shenwu Technology Group Corporation, China**  
  
**Concerning Collaborations in the Fields of Energy Efficiency and Clean Energy**

This Memorandum of Understanding (MOU) is between The Regents of the University of California (The Regents), in its capacity as manager and operator of the Lawrence Berkeley National Laboratory (LBNL), including its Energy Technologies Area, One Cyclotron Road, Mailstop 90R3036, Berkeley, CA 94720, and Shenwu Technology Group Corporation (Shenwu) headquartered in Beijing, China (<http://www.shenwu.com.cn/english>).

LBNL is a U.S. Department of Energy (DOE) National Laboratory managed and operated by The Regents pursuant to Contract No. DE-AC02-05CH11231. Shenwu is a Chinese energy technology company.

The Regents and Shenwu are collectively herein referred to as the "Participants" or individually as a "Participant."

**1. Objective**

The Participants intend to explore potential future collaboration in the fields of energy efficiency, and clean energy.

**2. Proposed Areas of Collaboration**

The Participants intend to collaborate in the following areas:

- Energy efficiency technologies and application
- Efficient utilization of resources, especially clean and efficient use of coal
- Clean energy and distributed energy systems such as gas turbines, combined heat and power (CHP), and distributed renewable energy
- Waste material utilization for high-efficiency energy systems
- Joint efforts to promote technological innovation and economic development on clean and efficient utilization of energy

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

October 16, 2017

### **3. Proposed Forms of Collaboration**

The Participants expect to collaborate through mutual visits, the exchange of publicly-available information, exchanges of researchers and experts, training, and planning for potential future joint research, with any future collaborative research to be undertaken only pursuant to an appropriate written agreement therefor.

### **4. Proposed Mechanisms of Collaboration**

- A. To administer the implementation of this MOU, each Participant should designate one or more principal coordinators to be in charge of the collaboration, through whom all requests and plans of that Participant should be made.
- B. The principal coordinators may hold meetings when necessary to discuss matters related to collaboration under this MOU.
- C. The principal coordinator for The Regents is Dr. Nan Zhou. The principal coordinator for Shenwu is Dr. Daohong Wu.
- D. If a Participant wishes to change its designated principal coordinator, the Participant should provide written notice to the other Participant.

### **5. Commencement, Modification and Discontinuation**

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

### **6. Exchange of Information**

The Participants do not anticipate the exchange of business-confidential information or the creation of intellectual property. If the Participants determine that a particular activity may lead to the exchange of business-confidential information or the creation of intellectual property, they should consult with each other and enter into an appropriate written agreement therefor.

### **7. General Terms**

- 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, including, by way of illustration and not by way of limitation: export control laws; environmental, health and safety laws and regulations; and international agreements to which its Government is party.

MOU between LBNL and Shenwu Technology Group Corporation

- B. This MOU does not create any legally binding obligations between the Participants.
- 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.

Signed in duplicate.

FOR THE REGENTS OF THE  
UNIVERSITY OF CALIFORNIA:

By: Michael Witherell

Name: Michael Witherell  
Director, Lawrence Berkeley

Title: National Laboratory

Date: 10/10/2017

Place: Berkeley, CA, USA

FOR SHENWU TECHNOLOGY  
GROUP CORPORATION:

By: Daohong Wu

Name: Daohong Wu

Title: Chairman

Date: 12/01/2017

Place: Beijing, China