

Memorandum of Understanding

Between

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

and

**Energy Research Institute of the National Development and Reform
Commission**

Concerning Collaboration in the Fields of Energy Efficiency and Low Carbon Development Research

This Memorandum of Understanding (MOU) is between The Regents of the University of California (The Regents), in its capacity as manager and operator of Lawrence Berkeley National Laboratory (LBNL), and the Energy Research Institute of the National Development and Reform Commission (ERI - NDRC). LBNL is a U.S. Department of Energy (DOE) National Laboratory managed and operated by The Regents pursuant to DOE Contract No. DE-AC02-05CH11231. Energy Research Institute (ERI) is a national research institute within the Chinese National Development and Reform Commission (NDRC). The scope of research conducted by ERI covers the fields of energy production, distribution, and consumption and low carbon development research.

LBNL and ERI-NDRC are collectively herein referred to as the "Participants" or individually as a "Participant."

1. Objective

The Participants intend to explore potential collaborations in the fields of energy efficiency and low carbon development research.

2. Proposed Areas of Collaboration

The Participants intend to collaborate in one or more of the following areas:

- Low carbon development, including support for the US-China Climate Change Working Group effort on Climate-Smart/Low-Carbon Cities.
- Energy efficiency, energy policy analysis, renewable energy development, energy system analysis, and environment and climate change research related to energy consumption.

3. Proposed Forms of Collaboration

The Participants expect to collaborate through mutual visits, the exchange of information, exchanges of researchers and experts, and 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 Lynn Price, or in the alternative Dr. Nan Zhou. The designated representative for ERI is HAN Wenke, or, in the alternative, DAI Yande.

5. Commencement, Modification and Discontinuation

- A. Cooperative activities under this MOU may commence upon signature and continue for a five (5) year period, unless discontinued in accordance with Paragraph B 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 written notice to the other Participant.
- C. This MOU may be modified or extended for additional periods by mutual written consent of the Participants.

6. Exchange of Information

The Participants do not anticipate the exchange of any business-confidential information. If the Participants decide that a particular activity may lead to the exchange of business-confidential information, they should consult with each other and make appropriate written arrangements for the protection of such information.

7. General Provisions

- 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, without limitation, export control laws and environment, health and safety laws and regulations, and international agreements to which its Government is party.
- 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

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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 in the English and Chinese languages.

FOR THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA

FOR ENERGY RESEARCH
INSTITUTE, NATIONAL
DEVELOPMENT AND REFORM
COMMISSION:

By: Michael Witherell

By: Han Wenke

Name: Michael Witherell

Name: Dr. HAN Wenke

Title: Laboratory Director

Title: Director

Date: Aug. 30, 2016

Date: June 12, 2016

Place: Berkeley, CA, USA

Place: Beijing

中华人民共和国国家发展和改革委员会能源研究所 与 劳伦斯伯克利国家实验室的托管机构加州大学 就能源效率与低碳发展领域开展合作的 谅解备忘录

本谅解备忘录由中华人民共和国国家发展和改革委员会能源研究所管理委员会（ERI - NDRC），与劳伦斯伯克利国家实验室（LBNL）的运营托管机构加州大学共同签署。LBNL 是美国能源部设立的国家实验室，由美国能源部运营管理，其合同号为：No. DE-AC02-05CH11231。ERI - NDRC 是由中华人民共和国发展和改革委员会设立的国家研究机构。发改委能源研究所的研究领域涵盖能源生产、运输、消费和低碳发展。

LBNL 与 ERI - NDRC 以下单独称为“一方”，合称为“双方”。

第一条：目的

双方有意探索在能源效率与低碳发展研究领域可能开展的合作。

第二条：提议合作领域

双方有意在以下一项或多项领域中开展合作：

- 低碳发展，包括为中美气候变化工作组的气候智慧型/低碳城市工作提供支持。
- 能源效率、能源政策分析、可再生能源发展，能源系统分析，以及与能源消耗相关的环境和气候变化研究。

第三条：提议合作模式

双方期望以如下模式进行合作：互相访问、信息交流、研究学者和专家交换，以及为未来潜在的共同研究项目开展的培训和规划项目等，同时，未来的任何合作研究仅根据相应的书面协议开展。

第四条：提议合作机制

1. 为了管理与实施此谅解备忘录，各方均应指定一个或多个负责合作的主要协调人，每一方所有的要求和计划都应该通过主要协调人提出。
2. 当需要讨论在此谅解备忘录下的合作事宜时，主要协调人可以召集会议。

3. 加州大学的主要协调人是 Lynn Price 或周南博士。能源研究所的指定代表是韩文科或戴彦德。

第五条：生效、修改和中止

1. 本谅解备忘录所载合作事宜自签字起生效，有效期五年，除非按照第五条 2 款规定提出终止。
2. 双方可随时相互提出书面要求终止本谅解备忘录。有意退出本谅解备忘录的一方应于解约日前至少 30 天，主动向另一方递出书面通知。
3. 本谅解备忘录可经双方书面同意进行修改，或延长执行有效期。

第六条：信息交换

参与双方无意交流任何涉及商业机密的信息。如果双方确定一项特定的活动可能引起商业机密信息的交换，则应互相协商并为保护该信息制定适当的书面协议。

第七条：一般条款

1. 双方应按照该谅解备忘录及各自单位适用的所有法律、规定和要求开展活动，这些法规与要求包括但不限于出口管制法律和环境、健康及安全法律法规，以及政府所加入的国际协议。
2. 本谅解备忘录对双方不具有法律约束力。
3. 本谅解备忘录构拟开展的各项合作活动将取决于是否有资金、人员和其他资源。
4. 参与本谅解备忘录所载合作活动过程中衍生的费用，由各参与方自行承担。

本谅解备忘录含中英文本一式两份。

加州大学

中华人民共和国国家发展和改革委员会
能源研究所

签字人： Michael Withen

签字人： 韩文科

姓名： 迈克尔·威瑟莱尔

姓名： 韩文科

职务： 实验室主任

职务： 主任

日期： Berkeley, CA, USA
Aug 30, 2016

日期： 2016/09/07