INDIA FOCUS

Harnessing the Power of Science: India and the United States Collaborate to Create Opportunity for Breakthrough Clean Energy Research

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In November 2010, Prime Minister Singh and President Obama launched the Joint Clean Energy Research and Development Center (JCERDC), a key effort under the Partnership to Advance Clean Energy (PACE).[1] The Center's goal is to spur game-changing research and development in clean energy, which will meet the energy security and low-carbon growth priorities of both countries.

The Center's funding comes from both India and the United States—with each country contributing $25 million, totaling $50 million from the two governments. Another $50 million in matching funds is expected to come from private, non-governmental participants. The Center's work will be managed by both governments: the U.S. Department of Energy (DOE), and the Indo-U.S. Science and Technology Forum (in coordination with the Department of Biotechnology, Ministry of Science and Technology, and other key Ministries). *A Funding Opportunity Announcement (FOA) was made on May 16, 2011, inviting applicants to submit proposals.*

The Natural Resources Defense Council (NRDC), the Administrative Staff College of India (ASCI), and the Council on Energy, Environment and Water (CEEW), share the objective of making this funding opportunity a success. We are distributing this information widely in order to help ensure that the highest caliber of talent in both countries is drawn into this grant opportunity.

None of our organizations will be applying for the JCERDC funds.

THREE RESEARCH CONSORTIA: EFFICIENT BUILDINGS, SOLAR ENERGY, AND SECOND-GENERATION BIOFUELS

The Center's work will be initiated through three joint U.S.-Indian consortia, one each on three priority areas for clean energy research and development (R&D): (1) energy efficient buildings; (2) second generation biofuels; and (3) solar energy. The consortium structure is intended to encourage partnership in each of the three priority areas and to create the potential for additional sources of funding to be leveraged with United States and Indian government funds. Private sector companies are also encouraged to be involved, given their understanding of near-term R&D needs and broader industry-wide impacts. The consortia should ideally include multiple partners from public and private sector companies, national laboratories, universities, and other research, analytic, and nonprofit organizations. Each consortium is required to have a minimum of two U.S. members and two Indian members. Also, each consortium is required to bring in matching funding equal to, or surpassing, funds awarded by the DOE and the Government of India. Funds awarded by the U.S. and Indian governments can only be disbursed to U.S. and Indian entities respectively.

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CEEW Council on Energy, Environment & Water

NRDC The Earth's Best Defense

1. ENERGY EFFICIENT BUILDINGS

Energy efficiency is currently the fastest, most cost-effective, and high-impact technology for reducing greenhouse gas emissions and ensuring wider energy access. The buildings sector, in particular, represents immense potential for energy savings. The objective of the consortium on energy efficiency in buildings is to contribute to dramatic improvements in the energy efficiency of buildings (commercial or residential) in the United States and India. Applicants should emphasize the understanding and identification of research gaps, prioritizing research, and implementing collaborative research teams drawing on expertise in both nations. Funding for this consortium will be $12.5 million over five years (combining $6.25 million each from the two governments) and an additional $12.5 million from consortium participants.

2. SECOND GENERATION BIOFUELS

Next-generation biofuels have the potential to deliver better environmental performance—reduced lifecycle greenhouse gas emissions and farming practices that result in cleaner water and healthier soils—with less impact on food and feed prices. The objective of the consortium on biofuels is to contribute to the improvement or development of advanced biofuels technologies that support downstream commercial deployment through enhanced process efficiency, cost-effectiveness, and environmental sustainability. Particular emphasis should be placed on advancing technology development related to the production of hydrocarbon fuels from non-food feedstocks appropriate for cultivation both in India and the United States, including ligno-cellulosic materials and algae. Funding for this consortium will be $12.5 million over five years (combining $6.25 million each from the two governments) and an additional $12.5 million from consortium participants.

3. SOLAR ENERGY

Solar energy is one of the most promising sources of low-carbon energy for both India and the United States. Recent technological leaps and increased scalability have made solar energy—both photovoltaic and solar thermal—an attractive sector for further R&D. The objective of the consortium on solar energy is to contribute to dramatic improvements in solar energy technology, establishing the scientific basis needed to underpin the efficient capture, conversion, and storage and utilization of solar energy for electricity generation in a cost-effective manner. Expertise from both countries will be used to identify research gaps, prioritize research topics, and implement collaborative research by teams focusing on innovations that are relevant to the Indian and/or U.S. energy frameworks. Funding for the consortium on solar energy will be $25 million over five years (combining $12.5 million each from the two countries) and an additional $25 million from consortium participants.

GRANT APPLICATION AND AWARD PROCESS

A minimum of one award for each of the three consortia will be made. The project period will be five years for each award. Entities and individuals are expected to submit applications as teams, with a minimum of two participants from the United States and two participants from India. Each applicant consortium must designate lead organizations from each country as prime award candidates. The designated lead organizations must perform a greater percentage of the planned R&D than any individual team member or sub-awardee. In terms of cost-sharing, the applicant consortia is expected to provide 50 percent of the total project costs, to match 50 percent of funding awarded by the Center. Applications must explain how funding from the Center will be separately tracked and utilized from cost-share funds provided by applicants.

Application forms for the proposals are available from DOE at http://www.pi.energy.gov/159.htm and the Indo U.S. Science and Technology Forum at http://www.indousstf.org/JCERDC.html. A prior Letter of Intent (LoI) is not required. ***Applications must be submitted by email by August 16, 2011***, and should be sent to JCERDC@HQ.DOE.GOV and PROGRAM@INDOUSSTF.ORG.[2] The final date for receipt of questions by the two secretariats is July 25, 2011.

Applications will be vetted separately by the DOE and the Government of India to determine eligibility. They will then be reviewed by a Joint Merit Review Panel comprising an equal number of U.S. and Indian reviewers (subject-matter experts). Members of the panel will submit their individual recommendations to the Merit Review Panel leader, who will convey the recommendations to a Joint U.S.-Indian Appraisal Committee. The decision of the Appraisal Committee will be communicated to the government officials responsible for announcing the final awards. Final awards are expected to be made in November, 2011.[3] Government funding from the United States will be awarded to U.S. members of the consortia, while Indian government funding will be awarded to Indian members of the consortia.

Please send your queries to the U.S. and Indian JCERDC Secretariats:

U.S. Department of Energy:
E-mail: jcerdc@hq.doe.gov
Fax: (202) 287-1448
Telephone: (202) 287-1456

Indo-U.S. Science and Technology Forum
E-mail: program@indousstf.org
Fax: 91-11-23321552
Telephone: 91-11-42691700

To encourage this exciting collaborative opportunity, NRDC, ASCI and CEEW will be disseminating relevant information and would be happy to connect potential applicants in our networks (in both India and the United States) who are interested in exploring joint projects. If for any reason you are unable to directly contact the U.S. and Indian secretariats regarding your queries and interest, please feel free to reach out to NRDC, ASCI, or CEEW.

[1] http://www.whitehouse.gov/sites/default/files/india-factsheets/Fact_Sheet_on_U.S.-India_Partnership_on_Clean_Energy_Energy_Security.pdf

[2] http://www.pi.energy.gov/documents/JCERDC_FOA_FINAL(1).pdf

[3] http://www.pi.energy.gov/documents/JCERDC_FOA_FINAL(1).pdf