

## National Solar Mission Report Launch – 04 May 2012

Press Release by the Council on Energy, Environment and Water

**REPORT EMBARGOED UNTIL 1500 IST**

### **National Solar Mission needs nurturing; bankability of projects critical, says new report**

*New Delhi, 04 May 2012:* An independent report published by the Council on Energy, Environment and Water (CEEW), and the Natural Resources Defense Council (NRDC), has found that India's solar industry is at a crucial stage of its growth and needs strategic nurturing. The report, *Laying the Foundation for a Bright Future*, which was launched here today, calls for greater transparency, benchmarking and monitoring; strategic approaches to finance; and technology-neutral policies for manufacturing.

### **Developing more innovative instruments and a cohesive approach to finance is key to further growth in the solar industry**

Companies developing projects during Phase 1 of the Mission used a variety of avenues to finance projects including domestic and overseas loans and company equity. The goal of 4000 – 10000 MW during Phase 2 will require much more engagement with and by the financial sector. Financiers perceive high risks in solar projects thanks to limited awareness about available technologies, concerns about solar radiation data, and need for more updates on project deployment and performance.

While domestic interest rates remain high, some project developers have been able to access overseas finance at rates around 3%-4% lower. Perceived risks about payment uncertainty is also a matter of concern for project developers, while financiers want to be sure that low bids in reverse auctions are indeed sustainable when the projects come on stream.

“For the India solar industry to grow in its maturing years, a financial ecosystem has to develop,” says Dr Arunabha Ghosh, CEO of CEEW. The report calls for MNRE to play a role in orchestrating a wide range of funding channels and institutions – public sector banks, multilateral agencies, commercial banks, private financiers and venture capitalists – that would operate at different levels: strategic, project, and for ancillary support (**See Graphic 1**). “Some institutions are better suited for project financing, while others are needed to increase information, to offer payment guarantees, long-term debt, while still others could support R&D, or boost skills development,” said Dr Ghosh.

The report recommends swift implementation of Infrastructure Debt Funds, as well as greater information sharing and awareness building amongst banks. It also recommends that the Solar Energy Corporation of India becomes the central clearinghouse for all solar related information dissemination, helping to create a cohesive approach to not only policy development, but also project deployment (including financing of projects). “In order for different financial mechanisms to succeed in scaling solar energy investments, we need a

comprehensive financial strategy that optimises the role of various funding sources and financial institutions,” adds Anjali Jaiswal, Director India Initiative, at NRDC.

## ABOUT THE REPORT

The report is the first independent, external analysis of the opportunities and hurdles faced by India’s National Solar Mission. Adopting a “whole-of-system” approach, the report identifies multiple stakeholders and focuses on all aspects of grid-connected solar power: selection, deployment and commissioning of projects; bankability and the role of various funding channels; the development of a robust manufacturing base; and the creation of an enabling environment with regard to land, power evacuation, skills (See **Graphic 2**). The report and related information material is available at: <http://ceew.in/solar>.

Overall, the report recommends that policymakers focus on three priorities:

- **Strategic Financing:** Government must bring together different financial institutions to strengthen the solar financing ecosystem, which would operate at the strategic level (priority sector lending, disseminating market information, etc.), project level (debt finance, non-recourse project finance, long-term debt, etc.), and offer ancillary support (R&D, skill development, etc.)
- **Technology-neutral Manufacturing:** Developing a robust manufacturing base for solar has value in India but investors need better infrastructure and financing. Also, policies to promote manufacturing should be technology-neutral. Three alternative policy options could be considered: (a) a domestic content requirement across all PV technologies; (b) a DCR specifying that a certain percentage of solar PV components be manufactured in India; and (c) consideration of a different form of incentive to promote domestic manufacturing without being overly restrictive towards foreign manufactured technologies.
- **Transparency and monitoring:** Common definitions of commissioning projects under state and national missions are needed. Project technology choices must be transparent and solar irradiance data must be available for investors to have confidence in the market.

## CONTACT

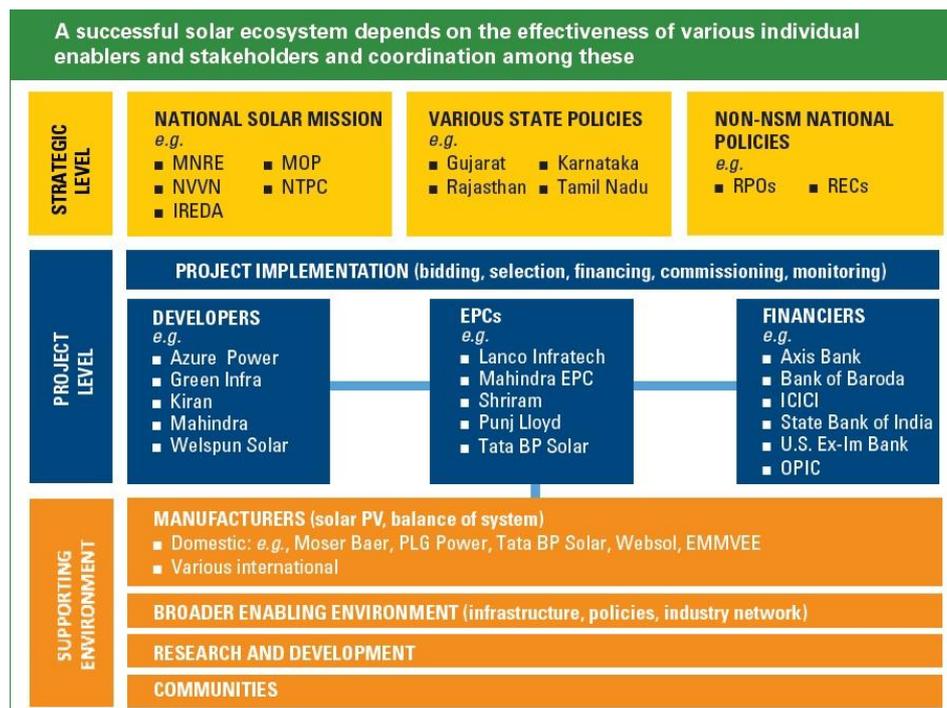
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**Graphic 1**

A range of private and public institutions have a role in enhancing bankability and overall solar market development		
	INSTITUTIONAL EXAMPLES	ACTUAL/POTENTIAL ROLE
STRATEGIC LEVEL	<b>Indian Public Sector (non-bank) Financial Intermediaries:</b> Reserve Bank of India; IREDA; Life Insurance Corporation	Priority sector lending; Concessional loans; Long-term debt
	<b>Non-Financial Supporting Institutions:</b> Solar Energy Corporation of India; Indian Banks' Association; Solar Energy Centre; BEE; C-WET	Channeling funds; Information provision; Skills; R&D; Component certification
	<b>Multilateral Funding Channels:</b> International Finance Corporation; Asian Development Bank; World Bank; Clean Technology Fund; Green Climate Fund (potentially)	Payment guarantees; Capacity building (esp. due diligence); R&D
PROJECT LEVEL	<b>Indian Banks:</b> Axis Bank; Bank of Baroda; ICICI; IDBI; Indian Overseas Bank; State Bank of India	Debt financing; Non-recourse project finance; Innovative finance (such as IDFs)
	<b>Non-Bank Financial Institutions:</b> IDFC; Infrastructure Debt Funds	Project finance; Support for market upscaling; Bridging finance gaps
	<b>Overseas Funding:</b> US-EXIM; US-OPIC; KfW (Germany); Multilateral Funding Channels	Concessional finance; Long-term debt
	<b>Other:</b> Venture Capital; Private Equity (Domestic and Overseas); Other early stage investors	Market entry support; Market upscaling; R&D
ANCILLARY MECHANISMS AND MEASURES	<b>Fiscal support:</b> NVVN/NTPC (Bundling); CERC (FIT); MNRE (Payment Guarantee Scheme)	Lowering costs; Incentivizing investment; Increasing market confidence
	<b>Market Mechanisms:</b> Carbon Market (CDM and Voluntary Market); Renewable Energy Certificates	Additional revenue support to incentivize investment
	<b>Other:</b> Bilateral Funding; Private Companies; Educational Institutions; National Skill Development Corporation	R&D; Skills development and training

**Graphic 2**





## **ABOUT THE COUNCIL ON ENERGY, ENVIRONMENT AND WATER**

The Council on Energy, Environment and Water is an independent, not-for-profit policy research institution. CEEW's mission is to develop an integrated and internationally focused approach to some of the most pressing challenges facing India and the world. It does so through high quality research, partnerships with public and private institutions, and engagement with and outreach to the wider public. Among its recent initiatives are: the 584-page National Water Resources Framework Study for the Planning Commission for the 12th Five Year Plan; institutional reforms for water use efficiency in agriculture; support for the Government of Bihar on minor irrigation reform and for water-climate adaptation frameworks; the Working Group on India and Global Governance, whose report was submitted to the National Security Adviser; support for the development of the India-U.S. Joint Clean Energy R&D Centre; work with the UK Royal Society and advising the Intergovernmental Panel on Climate Change on geoengineering governance; the Maharashtra-Guangdong partnership on sustainability; assessment of the National Solar Mission, submitted to the Ministry of New and Renewable Energy; and the governance of clean energy subsidies, for Rio+20.

CEEW has published several book length research reports in addition to peer reviewed articles and book chapters, policy briefs, op-eds, and numerous academic lectures. Its current and past work has included water resources management, international collaborations on energy and sustainability, promoting R&D in clean energy, governing climate finance, governance of geoengineering, global energy governance, trade-climate linkages, regulation of clean energy subsidies, India and global governance, among others. It also has extensive networks with research institutions and think-tanks in Europe, Singapore and the United States and is working on a range of climate-, water- and energy-related projects with them. More information about CEEW is available at: <http://ceew.in/>.

## **ABOUT THE NATURAL RESOURCES DEFENSE COUNCIL**

The Natural Resources Defense Council (NRDC) is an international nonprofit environmental organization with more than 1.3 million members and 40 years of experience of using law, science, and other expertise to protect the world's natural resources, public health, and the environment.

NRDC's India Initiative collaborates with local partners to help advance India's goal for a low-carbon sustainable economy. NRDC is advancing climate and clean energy solutions in India—from energy efficiency in buildings and appliances to climate-health preparedness. To bring these climate and clean energy solutions to scale, NRDC is adapting our expertise in scientific research, policy analysis and political acumen to the Indian context.

NRDC's work in India involves four interrelated projects: Enhancing U.S.-India cooperation on climate change and clean energy solutions, such as energy efficiency and solar energy; increasing energy efficiency in buildings and appliances; preparing communities for climate-related health threats; and strengthening environmental governance.

NRDC has offices in New York City, Washington D.C., Los Angeles, San Francisco, Chicago, Livingston, Montana, and Beijing. ([www.nrdc.org](http://www.nrdc.org)).