

## Press Release by the Council on Energy, Environment and Water (CEEW)

### FOR IMMEDIATE RELEASE

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### **New Report: India Needs Concentrated Solar Power to Achieve Safer, More Reliable Energy Future**

CEEW-NRDC Report Shows Concentrated Solar Power Essential to Meeting India's Over-Stressed Energy Demand

*New Delhi (11 October 2012)* – In the wake of historic summer blackouts that left more than 700 million Indians without power, a [new report](#) released today by the Council on Energy, Environment and Water (CEEW), an independent policy research institution in collaboration with the U.S. based Natural Resources Defense Council (NRDC), shows that concentrated solar power can play an essential role in achieving a secure and diversified energy future for India.

According to the new report “**Concentrated Solar Power: Heating Up India's Solar Thermal Market under the National Solar Mission**”, India has jumpstarted its solar energy industry in just over two years thanks to Phase 1 of the government's National Solar Mission. A major contributor to this growth is solar thermal power, including seven large-scale concentrated solar power (CSP) projects now underway in India.

Concentrated solar power involves systems of mirrors that concentrate a large area of sunlight onto a small area. The concentrated light is converted to heat, with a turbine and electrical power generator converting the heat to electricity. Because CSP allows for storage of electricity, large-scale CSP presents several potential benefits for India's energy profile. These include supplying electricity to help India meet its base-load needs, providing supplemental electricity during times of peak usage, and ensuring grid stability.

Building on the [April 2012 report](#) from CEEW and NRDC, which discussed the tremendous growth of the domestic solar market under Phase 1 of India's National Solar Mission, this new report focuses on the progress of CSP projects during Phase 1, identifying the benefits of and barriers to CSP growth in India.

The report also provides recommendations to strengthen the role of CSP in subsequent phases of the Mission.

“It is essential that under Phase 2 of the Mission, the Indian government not force a false choice between concentrated solar power and photovoltaic technologies,” said Dr. Arunabha Ghosh, CEO for the Council on Energy, Environment and Water, the New Delhi based policy research institution. “With greater confidence, investment, and transparency, both sectors have the potential to strengthen India's energy profile while creating new business opportunities for domestic developers, manufacturers and suppliers, and technology innovators.”

Phase 1 of the National Solar Mission sparked India's CSP market, as the government allocated power production evenly between CSP and photovoltaic (PV) technologies. The large-scale CSP projects now underway in India will provide a projected 500 megawatts (MW) in energy capacity, a

huge jump from the 8.5 MW of energy capacity under CSP projects before the National Solar Mission began in 2010.

Despite the anticipated acceleration of CSP in India, several barriers exist that challenge the long-term sustainability of India's CSP industry. These include the length of time required to develop CSP projects, high initial capital costs, and a lack of confidence in the CSP market as a whole. CEEW and NRDC's report provides recommendations for the Indian government, private sector, and other stakeholders to ensure a robust CSP ecosystem develops to support the long-term feasibility of CSP. These recommendations include:

**Develop a Clear Roadmap:** To reach India's Phase 2 targets, and continue to build India as a prime destination for solar, the sector needs long-term signals about the direction of the market, policy priorities, and support measures. India's Ministry of New and Renewable Energy (MNRE) can help ramp up India's solar mission by laying out a clear roadmap for Phase 2, without locking in one technology.

**Increase Transparency:** With doubt lingering among investors, MNRE should increase information publicly available on the bid selection process, the status of project commissioning, and power being produced.

**Investigate Delays and Monitor Timeline Extensions:** The government should enforce commissioning timelines for Phase 1 projects to avoid setting a precedent of leniency on delays.

**Facilitate Innovative Financing:** In order to attract CSP investment, MNRE should coordinate stakeholders to develop financiers' comfort with nonrecourse project financing, such as government-backed loan guarantees.

**Enforce Renewable Purchase Obligations (RPOs):** The Indian government should continue to analyse effective approaches to enforce renewable purchase obligations, the renewable energy mandates that energy distribution companies in India must meet.

**Offer Incentives for Innovation:** In order to fully exploit the potential of CSP technologies, the Indian government should offer incentives to project developers to adopt storage technologies (by extending commissioning timelines) and water-efficient plants, involving technologies like dry-cooling (by offering tariff premiums).

“After experiencing the world's largest blackout this summer, the Indian government knows the urgent need to improve grid stability and provide affordable electricity to hundreds of millions of people,” said Anjali Jaiswal, Senior Attorney for the Natural Resources Defense Council's India Initiative. “As India enters Phase 2 of the National Solar Mission, we are looking to the Indian government to support flexibility in the domestic solar industry by fostering confidence, investment, and innovation in concentrated solar power.”

CEEW and NRDC's report draws from extensive discussions with stakeholders, and research and analysis of national, state and international programs.

The full report can be found online [here](#).

Read more about concentrated solar power in India and the Jawaharlal Nehru National Solar [on CEEW's dedicated resource page on solar: \[ceew.in/solar\]\(http://ceew.in/solar\)](#)

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The Council on Energy, Environment and Water is an independent, not-for-profit policy research institution. CEEW addresses pressing global challenges through an integrated and internationally focused approach. It does so through high quality research, partnerships with public and private institutions, and engagement with and outreach to the wider public. Among its major clean energy initiatives, CEEW conducted the first independent analysis of India's 22 gigawatt solar mission, facilitated the \$100 million India-U.S. Joint Clean Energy R&D Center, and has produced research on energy scenarios for Indian industry.

CEEW's work profile covers all levels of governance: at the global/regional level, these include climate finance, energy-trade-climate linkages, geoengineering governance, and bilateral collaborations with China, Israel, Pakistan, and the United States; at the national level, it covers energy and resource efficiency and security, water resources management, renewable energy policies, India and global governance, and innovation strategies; and at the state/local level, CEEW develops integrated energy, environment and water plans, and facilitates industry action to reduce emissions or increase R&D investments in clean technologies. More information about CEEW is available at: <http://ceew.in/>.