

# Capital Markets Climate Initiative: Case Study on India Solar

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# Overview

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**Background on CMCI**

**A closer look at India solar**

**Next steps**



# CMCI aims to support the scaling up of private finance to deliver low carbon initiatives in emerging economies

## Constraints on green growth in emerging countries

- Very little private financing and capital currently supporting initiatives; scale is small and not sustained
- Policy uncertainty discourages private capital
- Lack of dialogue/understanding between public and private institutions

## Capital Markets Climate Initiative

What will it achieve?

- CMCI provides a platform for collaboration between governments and the private sector to help identify opportunities to mobilise/scale significant private and public capital into low carbon investments.
- CMCI will support governments in building market confidence in these sectors to attract investment today and in the future.

How will it operate?

- CMCI brings together investment banks, insurance companies, rating agencies and public institutions to engage in dialogue and share experiences with a view to scaling up investment in low carbon growth in developing countries.
- Working Group 1 is developing a knowledge base to help governments identify best practice approaches for mobilising private capital; Working Group 2 is actively testing models with partner governments .
- CMCI is not a legal entity but a grouping of parties with a shared interest and willingness to collaborate and share results.

Working Group 2 activities are being carried out in two stages

Stage 1

CMCI members



Partner governments



Local stakeholders



Identification of key barriers



Identification of potential solutions

Stage 2

International climate finance



International private capital



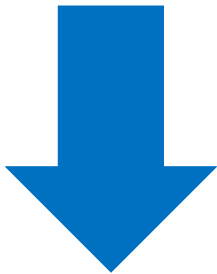
Local public and private finance



Facilitation of flow of capital to developing country initiatives

# A clear set of goals and outputs to focus CMCI's activities

## Goals



## Outputs

- Identify policies, regulations, public finance mechanisms, and public-private partnership models that leverage private finance (Working Group 1)
- Support developing countries in building low-carbon growth strategies that can attract local and international private sector finance (e.g., NAMA development in Kenya)
- Facilitate the convening of national and international stakeholders that can take the financing of specific projects to completion and help create sustained markets in low-carbon goods and services (e.g., India solar activities)
- 2 - 4 low-carbon case studies that identify investment needs and recommend new financing solutions
- A list of opportunities for the UK and other donor governments to provide fast-start climate finance to leverage private capital

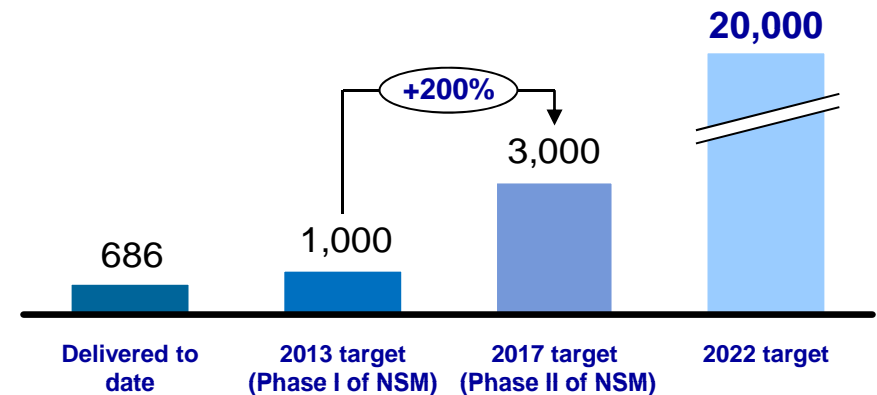


# CMCI's work in India

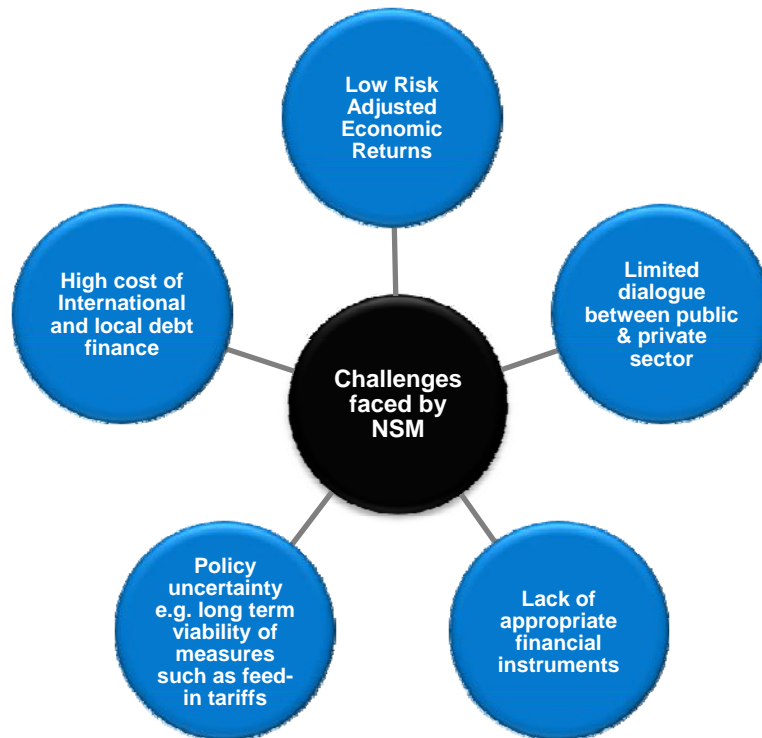
## Why is CMCI interested in solar in India?

- The market opportunity is big: \$35bn investment market by 2020<sup>1</sup>
- Significant private sector interest in the first phase of the National Solar mission
- Ambitious government plans for next stage of the National Solar Mission
- BUT, a number of important challenges remain

## India has set ambitious solar targets under the National Solar Mission



Solar in India



## What are the challenges that need to be overcome?

The World Economic Forum's 2011 *Critical Mass Initiative* identified that private investment in Indian Solar is held back by several factors:

- Lack of appropriate financial instruments, including guarantee mechanisms to underwrite perceived country and project risks
- High cost of finance: limited debt tenor, limited access to non-recourse debt, sub-scale project investment size
- Structure of PPAs (not assignable to lenders, a perceived risk of default)

<sup>1</sup>; Cumulative investment required between 2010-2020, McKinsey Project Catalyst, 2010

Please Note: The opportunities listed here should not be considered to be exhaustive and are subject to preliminary research only

\*Cumulative solar achievement by April 2011 was 37.66MW [Source: http://www.mnre.gov.in/](http://www.mnre.gov.in/)



# India work moving from situation analysis to solution development

July - August

September - October

October - November

COP 17 and beyond

1

Desk research and interviews

2

In- country engagement

3

Iteration and case study write up

Dissemination

Activities

- Interview private sector stakeholders to understand progress in the Indian market and identify remaining barriers to deal flow
- Clarify key barriers
- Identify financial mechanisms and policy needs

- Engage stakeholders, ministries and institutions
- Conduct workshops to identify financial solutions and policy measures
- Write up solutions and stimulate further dialogue between private and public players

- Test and refine potential solutions
- With Government support, explore opportunities for UK ICF funding
- Development of case study for discussion at the Forum's India Economic Summit, COP17 and Davos

- Communicate key actions and policy measures and facilitate discussion internationally
- Pursue top priority solutions in 2012

## SOLUTIONS

- Expanding/enhancing existing debt markets
  - Expanding ADB Partial Credit Guarantee
  - Developing new solar park financing concepts

- Linking with other donors, banks and investors to address enabling environment issues



# In-country engagement verified barriers...

## September workshops



Jodhpur



Mumbai

- **Focus:** How to mobilize private capital to scale-up solar and implications for policy makers
- **Target audience:** Developers, policy makers, donors
- **Key participants:** MNRE, Ministry of Power, Rajasthan State, Suzlon, Azure, OPIC, ADB

- **Focus:** The role of debt markets & the potential for solar park financing concepts
- **Target audience:** Indian Financiers, investment banks and sector experts
- **Key participants:** Deutsche Bank, CRISIL L&T Infrastructure, SIDBI, IDFC, ADB, Clinton Climate Initiative

## Barriers

### Financial

- **Project economics and debt capacity**
- **Availability of financing instruments**
- **Lack of non-recourse financing**
- **Sector limits and bank market appetite**

### Policy

- **PPA issues (tariff changes, non-inflation adjustment)**
- **Project size and pipeline, timelines**
- **Policing of RPO obligations/viability of RECs**

### Market

- **EPC<sup>1</sup> availability**
- **Land and water access**
- **Evacuation infrastructure**
- **Low experience with technology**



# ...and identified potential solutions

	Solution areas	Role of CMCI	Opportunity for donor funding
Barriers	<ol style="list-style-type: none"> <li>1. Tap new pools of debt capital through securitisation of project loan portfolios &amp; Solar Park financing vehicle</li> <li>2. Build regulatory capacity to scale and underpin the REC market</li> </ol>	<ol style="list-style-type: none"> <li>1. Create solar bond working group to develop securitisation / Solar Park finance vehicles</li> <li>2. Identify conditions necessary for bankable REC market in India, share lessons from other regions</li> </ol>	<ol style="list-style-type: none"> <li>1. Provide partial risk guarantee to credit enhance capital markets instrument(s), fund Solar Park financing vehicle and rating agency work</li> <li>2. Provide partial guarantee to underpin REC instrument(s)</li> </ol>
	<ol style="list-style-type: none"> <li>3. Backstop NSM and/or State solar PPAs</li> <li>4. Incentivise international lenders to participate in solar loan refinancing</li> </ol>	<ol style="list-style-type: none"> <li>3. Identify and develop appropriate PPA Breach of Contract insurance policy</li> <li>4. Determine conditions for international lenders to participate</li> </ol>	<ol style="list-style-type: none"> <li>3. Subsidize PPA Breach of Contract insurance policy</li> <li>4. Subsidize cost of foreign exchange hedging</li> </ol>
Policy	<ol style="list-style-type: none"> <li>5. Support Indian Government in collecting solar project and resource statistics</li> <li>6. Build capacity/comfort of local lenders</li> <li>7. Identify opportunities for regular information exchange between financiers/government</li> </ol>	<ol style="list-style-type: none"> <li>5. ID gaps in performance data needed by lenders</li> <li>6. Provide CMCI expertise to expand ADB efforts</li> <li>7. Lend expertise to shape public/private information exchange</li> </ol>	<ol style="list-style-type: none"> <li>5. Fund technical assistance for data aggregation</li> <li>6. Fund expanded capacity building for banks</li> <li>7. Fund seminars / conferences</li> </ol>

## Barriers

### Financial - securitisation

### Financial - debt providers

## Policy





# Next steps and sharing the work with international stakeholders

- **October- November: Test solutions and finalize recommendations through:**
  - Additional workshops in Kenya and at the Forum's India Economic Summit
  - Engagement of CMCI members to provide more detailed assistance for specific options
  - Coordination with other donors to address policy issues
- **December: Finalize case studies and deliver to COP17**
- **2012: Begin to implement top priority solutions**

## India Economic Summit



Nov 12  
2011

## COP17

COP 17-CMP 7  
DURBAN 2011

Nov 28 - Dec 9  
2011

## Davos 2012



Jan 25-29  
2011

## Mexican G20



June  
2012

