India: Gujarat Solar Power Transmission Project

**Project Name**
Gujarat Solar Power Transmission Project

**Project Number**
44431-013

**Country**
India

**Project Status**
Closed

**Project Type / Modality of Assistance**
Loan

**Source of Funding / Amount**
Loan 2778-IND: Gujarat Solar Power Transmission Project

<table>
<thead>
<tr>
<th>Source of Funding / Amount</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Ordinary capital resources</td>
<td>US$ 75.00 million</td>
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**Strategic Agendas**
- Environmentally sustainable growth
- Inclusive economic growth

**Drivers of Change**
Private sector development

**Sector / Subsector**
Energy - Renewable energy generation - solar

**Gender Equity and Mainstreaming**
Effective gender mainstreaming

**Description**
The proposed project will develop the transmission infrastructure for evacuation of power in a reliable manner from the solar power generation plants to be located in the 2,500 hectares Charanka solar park located in Patan district of Gujarat. The solar park will sit over 500 MW of both solar photovoltaic (PV) and concentrated solar power (CSP) plants.

India is bestowed with solar irradiation ranging from 4 to 7 kWh/square meter/day across the country, with western and southern regions having higher solar incidence. With rapid growing electricity demand, availability of land and increasing reliance on imported sources of fossil fuel, India has initiated steps to tap into and develop the large potential for solar energy based power generation. In 2010, the GOI launched the Jawaharlal Nehru National Solar Mission (JNNSM) to facilitate extensive solar power development. Achieving the ambitious target for 2022 of 20,000 MW will be dependent on the lessons identified during the implementation of the first two phases, which if successful, could lead to conditions of grid-competitive solar power. The transition to mainstreaming solar energy could be appropriately scaled up through capacity development of all the stakeholders related to issues of technology, finance, project management and policy development. JNNSM envisages setting up utility scale solar power generation plants through the promotion and establishment of solar parks with dedicated infrastructure by state governments, among others, the governments of Gujarat (GOG) and Rajasthan (GOR).

**Project Rationale and Linkage to Country/Regional Strategy**
India has initiated steps to tap into and develop the large potential for solar energy based power generation. In 2010, the GOI launched the Jawaharlal Nehru National Solar Mission (JNNSM) to facilitate extensive solar power development. Achieving the ambitious target for 2022 of 20,000 MW will be dependent on the lessons identified during the implementation of the first two phases, which if successful, could lead to conditions of grid-competitive solar power. The transition to mainstreaming solar energy could be appropriately scaled up through capacity development of all the stakeholders related to issues of technology, finance, project management and policy development. JNNSM envisages setting up utility scale solar power generation plants through the promotion and establishment of solar parks with dedicated infrastructure by state governments, among others, the governments of Gujarat (GOG) and Rajasthan (GOR).

**Impact**
Large-scale development of reliable solar power projects in a cost-effective manner in India

**Project Outcome**

<table>
<thead>
<tr>
<th>Description of Outcome</th>
<th>Outcome Achieved</th>
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<tbody>
<tr>
<td>Development of reliable solar power transmission infrastructure for the successful operation of the solar park</td>
<td>100% outcome achieved</td>
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</table>

**Implementation Progress**

**Description of Project Outputs**
Physical Investment:
1. The procurement, installation, and commissioning of the transmission system and associated facilities for the Charanka solar park
2. Vocational training for skilled employment
3. Energy-based livelihood enhancement

**Status of Implementation Progress (Outputs, Activities, and Issues)**
100% project outputs achieved

**Geographical Location**
Charanka Solar Park

**Safeguard Categories**
Environment B
Involuntary Resettlement

Indigenous Peoples

Summary of Environmental and Social Aspects

Environmental Aspects
GETCO is undertaking the Project in accordance with ADBs Safeguard Policy Statement 2009. Project Management Unit (PMU) has already been set up and is responsible for coordinating and implementing the project inter alia all social and environmental activities. The Social and Environmental Monitoring reports submitted by EA have been uploaded on ADB website.

Involuntary Resettlement
GETCO is monitoring the project’s overall environmental and social performance as per the terms and conditions specified in Section IX (Safeguards) of the Project Administration Manual (PAM).

Indigenous Peoples
No indigenous people are expected to be affected. This is reflected in the category C classification for indigenous people.

Stakeholder Communication, Participation, and Consultation
During Project Design
During Project preparation, consultations were held with the concerned Government officials.

During Project Implementation
Project implementation completed.

Business Opportunities
Consulting Services
Not required.

Procurement
All procurement to be financed under the loan will be carried out in accordance with ADB’s Procurement Guidelines (2010, as amended from time to time). Advance procurement action has been approved. GOG and GETCO have been advised that approval of advance procurement does not commit ADB to finance the project. The transmission lines outside the solar park, the substations and the transmission cables within the solar park will be procured following international competitive bidding procedures.

Responsible ADB Officer
Jyotirmoy Banerjee

Responsible ADB Department
South Asia Department

Responsible ADB Division
India Resident Mission

Executing Agencies
Government of Gujarat Energy and Petrochemicals Department Block 5, Secretariat Gandhinagar 392010, India
Gujarat Energy Transmission Corporation Limited Sardar Patel Vidyut Bhavan, Race Course Vadodara- 390 007 INDIA

Timetable
Concept Clearance 20 Jan 2011
Fact Finding 23 Mar 2011 to 29 Mar 2011
MRM 27 Apr 2011
Approval 12 Sep 2011
Last Review Mission -
Last PDS Update 28 Sep 2017

Loan 2778-IND

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<tr>
<th>Approval Date</th>
<th>Signing Date</th>
<th>Effectivity Date</th>
<th>Closing Date</th>
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<tr>
<th>Financing Plan</th>
<th>Loan Utilization</th>
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<tbody>
<tr>
<td>Project Cost</td>
<td>Total (Amount in US$ million)</td>
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<tr>
<td>ADB</td>
<td>Date</td>
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<tr>
<td>Counterpart</td>
<td>75.00</td>
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<tr>
<td>Cofinancing</td>
<td>33.69</td>
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<tr>
<th>Status of Covenants</th>
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<tbody>
<tr>
<td>Category</td>
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<tr>
<td>Rating</td>
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Project Page
https://www.adb.org/projects/44431-013/main
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