



Project Data Sheet

Project 44431-013

Project Name	Gujarat Solar Power Transmission Project	
Project Number	44431-013	
Country / Economy	India	
Project Status	Closed	
Project Type / Modality of Assistance	Loan	
Source of Funding / Amount	<u>Loan 2778-IND: Gujarat Solar Power Transmission Project</u>	
	Ordinary capital resources	US\$ 75.00 million
Strategic Agendas	Environmentally sustainable growth	
	Inclusive economic growth	
Drivers of Change	Gender Equity and Mainstreaming	
	Private sector development	
Sector / Subsector	Energy / Renewable energy generation - solar	
Gender	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 site over 500 MW of both solar photovoltaic (PV) and concentrated solar power (CSP) plants.	

Project Rationale and
Linkage to
Country/Regional
Strategy

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).

GOG, taking advantage of the favorable policy regimes and high solar irradiation in the state, launched the Solar Power Policy in 2009 and proposes to establish a number of large scale solar parks starting with the Charanka solar park in Patan district in the sparsely populated northern part of the state. The development of solar parks will streamline the project development timeline by letting government agencies undertake land acquisition and necessary permits, and provide dedicated common infrastructure for setting up solar power generation plants largely in the private sector. This approach will facilitate the accelerated installation of private sector solar power generation capacity reducing costs by addressing issues faced by stand alone projects. Common infrastructure for the solar park include site preparation and leveling, power evacuation, availability of water, access roads, security and services. In parallel with JNNSM, the Gujarat Electricity Regulatory Commission (GERC) announced feed-in-tariff to mainstream solar power generation which will be applied for solar power generation plants in the solar park and GOG launched the Solar Power Policy 2009 to meet the objective. Gujarat Power Corporation Limited (GPCL) is the responsible agency for developing the solar park of 500 megawatts and will lease the lands to the project developers to generate solar power. Gujarat Energy Transmission Corporation Limited (GETCO), with the mandate to develop transmission infrastructure in Gujarat is one of the Executing Agencies for the Project and will develop the transmission evacuation from the identified interconnection points with the solar developer. ADB funds to GOI will be on-lent to GETCO. Connection from the solar power plant to the interconnection point would be funded by the developer.

5. In May 2010, ADB announced its Asia Solar Energy Initiative (ASEI) to catalyze 3,000 megawatts of solar power generation projects from 2010 to 2013 in ADB developing member countries. As part of ASEI, ADB is taking a holistic approach under the project to catalyze development of the innovative public-private partnership (PPP) model of 500 megawatts solar park (17% of ASEI target) from public and private sector windows. ADB through TA 7099: Integrated Renewable Energy Development Program supported the development of the commercial agreements between solar power developers and power purchasers under the JNNSM. ADB also processed a guarantee facility to commercial banks to lend private sector solar developers. Through development of the power evacuation line from the solar park, ADB will facilitate private sector participation and develop a model that can be replicated to scale up solar power in a significant manner in India.

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

Description of Outcome	Development of reliable solar power transmission infrastructure for the successful operation of the solar park
Progress Toward Outcome	100% outcome achieved.

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 Non-Physical Investment 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	B
Indigenous Peoples	C

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.
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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 Banerjee, Jyotirmoy

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

Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
12 Sep 2011	27 Feb 2012	26 Jun 2012	31 Mar 2015	31 Dec 2016	09 Nov 2017

Financing Plan

Loan Utilization

	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	108.69	Cumulative Contract Awards			
ADB	75.00	17 Jun 2022	65.62	0.00	100%
Counterpart	33.69	Cumulative Disbursements			
Cofinancing	0.00	17 Jun 2022	65.62	0.00	100%

Status of Covenants

Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	Satisfactory	Satisfactory	Satisfactory	Satisfactory	-	Satisfactory

