ADB ASIAN DEVELOPMENT BANK

India: Rajasthan Renewable Energy Transmission Investment Program (Facility Concept)

Project Name	Rajasthan Renewable Energy Transmission Investment Program (Facility Concept)
Project Number	45224-002
Country	India
Project Status	Active
Project Type / Modality of Assistance	Loan Technical Assistance
Source of Funding / Amount	**MFF Facility Concept 0076-IND: Rajasthan Renewable Energy Transmission Investment Program (Facility Concept)** Ordinary capital resources — US$ 300.00 million Clean Technology Fund — US$ 198.00 million **TA: Rajasthan Renewable Energy Capacity Development and Implementation Support** Clean Technology Fund — US$ 2.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth
Drivers of Change	Private sector development
Sector / Subsector	**Energy** - Energy sector development and institutional reform
Gender Equity and Mainstreaming	Effective gender mainstreaming
Description	Rajasthan completed the installation of about 1767 MW of wind and 45 MW of solar generation at the end of 2011 using surplus transmission capacity in the grid. The state's investment plan for renewable energy targets installation of about 8,000 MW of solar and wind projects by 2018. These include private solar and wind power projects to be set up primarily in the renewable energy rich resource areas of Western Rajasthan (in Jodhpur, Bikaner, Barmer and Jaisalmer) including in the solar park being developed in Bhadla by the Rajasthan Renewable Energy Corporation. The Program would support transmission facilities for evacuation of renewable energy to the state and national grid.
Project Rationale and Linkage to Country/Regional Strategy	India has an annual electricity deficit of 8% and nearly 350 million people without access to electricity. The country is heavily dependent on fossil fuel imports (coal, gas, oil) to meet its electricity requirements. The Government in its Integrated Energy Policy (IEP) 2006 estimated that the country would need to increase its electricity generation by at least 5 times, and change the sources mix, to meet the increase in demand expected by 2032. India's tropical position bestows it with solar irradiation ranging from 4-7 kWh/square meter/day across the country and certain regions, particularly the western region (including Rajasthan), have even higher solar incidence. Given this background, India has decided to invest in renewable energy (RE).
Impact	Accelerated development of renewable energy sources in Rajasthan and India

Project Outcome

Description of Outcome	Cleaner electricity mix with more efficient and effective generation and transmission system achieved
Progress Toward Outcome	
Implementation Progress	
Description of Project Outputs	1. Bulk power transmission system in Rajasthan expanded 2. Institutional capacity for renewable energy parks and transmission system developed.

Status of Implementation Progress (Outputs, Activities, and Issues)	
Geographical Location	

Summary of Environmental and Social Aspects

Environmental Aspects	An environment assessment and review framework was prepared, outlining the environment safeguard principles and requirements. RRVPNL will undertake environmental due diligence on individual investments based on the environment assessment and review framework and submit quarterly reports on implementation of environmental management plans (EMPs)
Involuntary Resettlement	A resettlement framework was prepared outlining the social safeguard principles and requirements. RRVPNL will undertake social safeguard due diligence on individual investments based on the resettlement framework and submit quarterly reports on implementation of resettlement plans for projects.
Indigenous Peoples	A indigenous peoples planning framework was prepared outlining the social safeguard principles and requirements. RRVPNL will undertake social safeguard due diligence on individual investments based on the indigenous peoples planning framework and submit quarterly reports on implementation of indigenous plans for projects (as required).
Stakeholder Communication, Participation, and Consultation	
During Project Design	
During Project Implementation	

Business Opportunities

Procurement	Goods, equipment, and civil works financed by ADB will be procured in accordance with ADB's Procurement Guidelines (2013, as amended from time to time). RRVPNL has undertaken advance procurement actions, including the placement of bidding documents in the market and requested that ADB authorize these actions and allow retroactive financing. RRVPNL will follow competitive bidding procedures acceptable to ADB for public sector transmission investments. Private sector renewable energy developers selling power to utilities will be selected through a competitive process and will enter into supply contracts with their clients. The construction of their facilities will most likely follow turnkey contracts selected through a competitive process. RREC will coordinate with RRVPNL on the choice and sequencing of the development of transmission lines to evacuate the renewable energy produced in the region, including that from wind and solar parks. Retroactive financing will be allowed for up to 20% of the individual loan amount for expenditures incurred 12 months prior to loan signing.

Responsible Staff

Responsible ADB Officer	George, Len V.
Responsible ADB Department	South Asia Department
Responsible ADB Division	Energy Division, SARD
Executing Agencies	*Energy Department, Government of Rajasthan* *Vidyut Bhawan, Janpath, Jaipur - 302 005 Rajasthan, India* *Rajasthan Rajya Vidyut Prasaran Nigam Limited* *Vidyut Bhawan, Janpath, Jaipur 302 005* *Rajasthan, India*

Timetable

Concept Clearance	23 Feb 2012
Fact Finding	06 May 2012 to 21 May 2012
MRM	29 Jun 2012
Approval	26 Sep 2013
Last Review Mission	-
Last PDS Update	11 Aug 2014

MFF Facility Concept 0076-IND

Financing Plan		Loan Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage

Project Cost	798.00	Cumulative Contract Awards			
ADB	300.00	-	0.00	0.00	%
Counterpart	300.00	Cumulative Disbursements			
Cofinancing	198.00	-	0.00	0.00	%

Project Page	https://www.adb.org/projects/45224-002/main
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