ADB ASIAN DEVELOPMENT BANK

India: Rajasthan Renewable Energy Transmission Investment Program - Tranche 1

Project Name	Rajasthan Renewable Energy Transmission Investment Program - Tranche 1
Project Number	45224-003
Country	India
Project Status	Active
Project Type / Modality of Assistance	Loan Technical Assistance
Source of Funding / Amount	**Loan 3052-IND: Rajasthan Renewable Energy Transmission Investment Program - Tranche 1** Ordinary capital resources — US$ 62.00 million **Loan 8275-IND: Rajasthan Renewable Energy Transmission Investment Program - Tranche 1** Clean Technology Fund — US$ 88.00 million **TA 8486-IND: 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	Partnerships Private sector development
Sector / Subsector	**Energy** - Electricity transmission and distribution
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/India.

Project Outcome

Description of Outcome	Cleaner electricity mix with more efficient and effective generation and transmission system
Progress Toward Outcome	Implementation is ongoing.
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)	All originally envisaged contracts have been awarded, implementation is ongoing. The loan closing date was extended till 31 December 2017, to complete remaining works under the Project.
Geographical Location	

Safeguard Categories

Environment	B
Involuntary Resettlement	B
Indigenous Peoples	C

Summary of Environmental and Social Aspects

Environmental Aspects	Project investments are classified as category B for environment. Major components include supply and installation of transmission substations and transmission lines. The construction work is limited to building foundations for the transmission towers and substations. Based on the environmental assessment and surveys conducted by RRVPNL, potential adverse environmental impacts of this work are minimal and can be mitigated through implementation of the EMP. Budgetary provisions have been made to cover the environmental mitigation and monitoring requirements, and the EMP is part of the bidding documents. RRVPNL will supervise the construction contracts and EMP implementation. The initial environmental examination for Project was disclosed on ADB website.
Involuntary Resettlement	The resettlement impact is insignificant and the Project has been Categorized as B for Involuntary Resettlement (IR) as per the ADB' Safeguard Policy Statement, 2009 (SPS). The project will not entail any private land acquisition. There will be no permanent impact on physical displacement, economic displacement and loss of livelihood. The grid substations under the project are proposed to be constructed on the government land which is waste land and free from any use. The transmission lines are passing mostly through the desert and barren land and the area are sparsely populated. The construction of transmission lines will not entail any land acquisition and resettlement, however, will have a temporary impact on private agriculture land during the construction phase. Displaced persons, if any, will be compensated at replacement cost and entitlement for different categories of loss and additional assistance for vulnerable group are detailed in the framework. Payment of compensation and assistance to DPs for temporary impacts caused on crops will be completed in a phased manner before the start of civil work in that specific section. The RRVPNL will be the Executing Agency (EA) as well as the Implementing Agency (IA) for the project. RRVPNL will constitute a Project Management Unit (PMU) for implementing the ADB loan. One Environment and Social Cell (ESC) shall be designated and headed by one Executive Engineer who shall be responsible for monitoring Social safeguards in the project. The EA will establish a Grievance Redress Mechanism (GRM) to receive and facilitate the resolution of affected persons' concerns and grievances, paying particular attention to the impacts on vulnerable groups. Grievances of APs will first be brought to the attention of the Project head of the Project Implementing Unit. Grievances not redressed by the field office of RRVPNL will be brought to the Grievance Redress Committee. The GRC will determine the merit of each grievance, and resolve grievances within three months of receiving the complaint. All grievances will be recorded, decisions documented, and made accessible to the public. The outcome of the redress shall form part of the semiannual monitoring report to ADB.
Indigenous Peoples	The sub-projects were evaluated and found that the Investment Program will not have any potential impacts on IPs. The proposed transmission system which includes construction and augmentation of substations and construction of transmission lines will mostly be situated in the barren desert land and are away from the human habitat. Also, the Tranche-1 subproject covers areas which do not have any major tribal population and primarily a desert area with a very less density of population. According to the ADB's Safeguard Policy Statement (2009), the Tranche is categorized as C' for impacts on the indigenous peoples. However, to ensure that impacts on IPs are addressed consistent with ADB's SPS, 2009, an Indigenous Peoples Planning Framework (IPPF) has been prepared that include specific measures that provide entitlements to indigenous people. The grievance redress mechanism will be the same as mentioned in the Resettlement Framework.
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	Karbar, Vallabha R.
Responsible ADB Department	South Asia Department
Responsible ADB Division	India Resident Mission
Executing Agencies	*Energy Department, Government of Rajasthan* *SEC_ENERGY_GOR@RVPN.CO.IN* *Vidyut Bhawan, Janpath, Jaipur - 302 005 Rajasthan, India* *Rajasthan Rajya Vidyut Prasaran Nigam Limited* *CMD_RVPN@RVPN.CO.IN* *Vidyut Bhawan, Janpath, Jaipur 302 005* *Rajasthan, India*

Timetable

Concept Clearance	-
Fact Finding	-
MRM	29 Jun 2012
Approval	22 Oct 2013
Last Review Mission	-
Last PDS Update	15 Mar 2017

Loan 3052-IND

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
22 Oct 2013	12 Sep 2014	06 Nov 2014	31 Dec 2016	31 Dec 2017	-

Financing Plan		Loan Utilization			
	Total (Amount in US$ million)	Date	ADB	Others	Net Percentage
Project Cost	189.00	Cumulative Contract Awards			
ADB	62.00	22 Oct 2013	51.32	0.00	83%
Counterpart	127.00	Cumulative Disbursements			
Cofinancing	0.00	22 Oct 2013	35.60	0.00	57%

Loan 8275-IND

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
22 Oct 2013	12 Sep 2014	06 Nov 2014	31 Dec 2016	31 Dec 2017	-

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

Project Cost	88.00	Cumulative Contract Awards			
ADB	0.00	22 Oct 2013	0.00	73.20	83%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	88.00	22 Oct 2013	0.00	51.00	58%

TA 8486-IND

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
22 Oct 2013	07 Mar 2014	07 Mar 2014	31 Mar 2016	31 Dec 2017	-

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	2,000,000.00	0.00	0.00	0.00	0.00	2,000,000.00	22 Oct 2013	1,349,558.24

Project Page	https://www.adb.org/projects/45224-003/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=45224-003
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