Early Warning System

ADB-49214-002

Solar Transmission Sector Project

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Quick Facts

Countries	India
Financial Institutions	Asian Development Bank (ADB)
Status	Approved
Bank Risk Rating	B
Voting Date	2017-03-29
Sectors	Energy
Investment Type(s)	Loan
Investment Amount (USD)	$ 225.00 million

Project Description

DESCRIPTION

The project will finance high voltage transmission systems to evacuate electricity generated from the new mega solar parks to the interstate grid, and improve reliability of the national grid system. The project will be based on the sector loan approach, which will include subprojects in various locations throughout India. It will also use the country safeguard and procurement systems at an agency level of POWERGRID.

PROJECT RATIONALE AND LINKAGE TO COUNTRY/REGIONAL STRATEGY

Sector background. India is experiencing both base load and peak power deficits. The lack of reliable electricity supply constrains India''s economic growth, and makes it difficult for around 311 million citizens to have access to electricity. Under such supply constraints, electricity demand still continues to increase along with sustained industrialization and expanded economic development. The power demand is projected to more than double from 300 gigawatt (GW) to over 700 GW by 2030. It will be a challenge to meet this size of capacity addition through any conventional power supply approach. While India''s power system is dominated by thermal generation from coal-fired plants, fossil fuels have been problematic with shortages from domestic production, volatile prices from increasing imports, and adverse climate impacts. To ensure energy security in a sustainable manner, the Government of India thus shifted its strategies in planning for the future additional generating capacity through an energy mix, and has increased its target for renewable energy by 2022. In 2015, the government announced at the Conference of Parties 21 in Paris that it aims to increase to 40% cumulative power capacity from non-fossil fuel based energy resources by 2030.

ADB interventions. ADB was the frontrunner to develop solar parks' transmission systems for Gujarat and Rajasthan state utilities. While various donors and multilateral development banks are widely involved in renewable energy development projects, CTF has been allocated to ADB and the World Bank to support solar rooftop, solar parks, and their relevant transmission infrastructure.

Project Design. The government requested ADB for continued support for the interstate transmission system for solar parks since it aims to drastically scale up the country''s installed solar capacity in a phased manner. A series of solar parks have been identified, but their development and preparation processes are different. Therefore, the sector lending approach is considered suitable as it will enable POWERGRID to undertake transmission line expansion to individual solar park sites according to planned commissioning of solar parks based on their readiness. The sector lending is warranted on the government's development plan, policies and strategies and POWERGRID''s implementation capacity.

Adoption of POWERGRID safeguard and procurement systems. As a special feature, the project will pilot the adoption of POWERGRID safeguard and procurement systems that have been assessed and deemed satisfactory to ADB with agreed action plans to achieve full compliance with ADB''s safeguard and procurement requirements. The agency's system adoption is expected to improve the operational flexibility and autonomy, and reduce the transaction costs and time required for the safeguard and procurement processes of subsequent subprojects, in conjunction with the sector loan approach.

Value added by ADB assistance. Supporting construction of interstate transmission systems for the Ultra Mega Solar Power Projects, the project will provide a means to export excess solar energy from states that have surplus power supply to power-deficit states and those seeking to meet their renewable purchase obligation requirements. As such, the project will directly support India''s continued solar energy expansion and will also contribute to strengthening the integrated interstate and interregional grid, thus allowing for power trading across larger geographical areas, which is considered a prerequisite to effectively deploying high penetrations of variable renewable energy. The resultant power output profiles will differ greatly from India''s current generation mix that is dominated by thermal plants, and substantiate India''s contribution to climate mitigation activities.

Investment Description

- Asian Development Bank (ADB)

Contact Information

ACCOUNTABILITY MECHANISM OF ADB

The Accountability Mechanism is an independent complaint mechanism and fact-finding body for people who believe they are likely to be, or have been, adversely affected by an Asian Development Bank-financed project. If you submit a complaint to the Accountability Mechanism, they may investigate to assess whether the Asian Development Bank is following its own policies and procedures for preventing harm to people or the environment. You can learn more about the Accountability Mechanism and how to file a complaint at: http://www.adb.org/site/accountability-mechanism/main

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Bank Documents

- Guarantee Agreement for Loan 3125 (Ordinary Operations) and Loan 8325 (ADB Clean Technology Fund)-IN [Original Source]
- Loan Agreement (ADB Clean Technology Fund) for Loan 8325-IND: Solar Transmission Sector Project [Original Source]
- Loan Agreement (Ordinary Operations) for Loan 3521-IND: Solar Transmission Sector Project [Original Source]
- Preparing the Solar Park Development and Transmission Sector Project: Project Preparatory Technical [Original Source]
- Project Disclosure PDF
- Solar Park Development and Transmission Sector Project: Initial Poverty and Social Analysis
- Solar Park Transmission Sector Project: Project Data Sheet (hindii) [Original Source]
- Solar Transmission Sector Project: Banaskantha, Gujarat Compensation Plan for Temporary Damages [Original Source]
- Solar Transmission Sector Project: Banaskantha, Gujarat Initial Environmental Assessment Report [Original Source]
- Solar Transmission Sector Project: Bhadla, Rajasthan Compensation Plan for Temporary Damages [Original Source]
- Solar Transmission Sector Project: Bhadla, Rajasthan Initial Environmental Assessment Report
- Solar Transmission Sector Project: Procurement Plan [Original Source]
- Solar Transmission Sector Project: Project Administration Manual [Original Source]
- Solar Transmission Sector Project: Report and Recommendation of the President [Original Source]

Other Related Projects

- ADB-49214-001 Preparing the Solar Park Development and Transmission Sector Project