



ASIAN DEVELOPMENT BANK

## India: IND: 145 MEGAWATTS GRID-CONNECTED SOLAR PROJECT

Project Name	IND: 145 MEGAWATTS GRID-CONNECTED SOLAR PROJECT			
Project Number	44932-054			
Borrower/Company	CHATEL CONSTRUCTION PRVT LTD HIRACO RENEWABLE ENERGY PRIVATE LTD RESPONSIVE SUTIP LIMITED GANGES GREEN ENERGY PRIVATE LTD SAND LAND REAL ESTATE PVT LTD UJJAWALA POWER PRIVATE LIMITED			
Country	India			
Location	The project is across the six locations in Gujarat state which are generally within a 150 kilometers (km) radius of the cities of Ahmedabad, Porbandar, and Rajkot.			
Approval Number	7365/2910			
Type or Modality of Assistance	7365/2910	-1	US\$ 0.00	Approved
Strategic Agendas	Inclusive economic growth			
Drivers of Change				
Sector / Subsector	<b>Energy</b> - Renewable energy generation - solar			
Gender Equity and Mainstreaming				
Responsible ADB Department	Private Sector Operations Department			
Responsible ADB Division	Portfolio Management Division, PSOD			
Responsible ADB Officer	Shinya Kondo			
Project Sponsor(s)				
Description	The project is designed to promote sustainable growth by diversifying India's energy mix through the addition of renewable energy capacity. The development impact of the project also includes environmental benefits through more efficient use of indigenous renewable energy resources with almost no emission of pollutants or greenhouse gases. The building of the project will help prove the feasibility of utility-scale solar power projects in India and the operational performance in a location where substantial development in solar power is planned during 2012-2017.			
Objectives and Scope	The project constructed 25 megawatts (MW) of solar photovoltaic power project at village Alwada and Khimat, District Banaskantha in the state of Gujarat. The project is designed to promote sustainable growth by diversifying energy mix in India through the addition of renewable energy capacity. The development impact of the project also includes environmental benefits through more efficient use of indigenous renewable energy resources with almost no emission of pollutants or greenhouse gases. The building of the project will help prove the feasibility of utility-scale solar power projects in India and the operational performance in a location where substantial development in solar power is planned during 2012-2017.			
Linkage to Country/Regional Strategy	The project supports two of the five core operational areas of Strategy 2020 infrastructure and environment. The project is aligned with the India country partnership strategy (CPS), 2009-2012. One of the four strategy pillars of the CPS is to support inclusive and environmentally sustainable growth through continued focus on infrastructure development and enhanced focus on renewable energy. The project is consistent with one key outcome indicator of the CPS, which targets an addition of at least 70 MW of solar power generation through ADB assistance by 2012.			
Status of Development Objectives	The project is meeting the development objectives as stated above.			
Material Changes	-			

## Safeguard Categories

Environment	B
Involuntary Resettlement	C
Indigenous Peoples	C

## Summary of Environmental and Social Aspects

Environmental Aspects	The project is classified category B for environment due to limited adverse environmental impacts which are site specific, largely reversible and can be readily addressed through mitigation measures. The project site is not located in a sensitive ecosystem, and is not significant from a historical and cultural perspective. The land purchased for the project is classified as agricultural land but the fertility of the land has been degraded over a period of time due to problem of high salt concentration in the soil and low organic carbon and nitrogen content. The location of the project site coupled with the clean nature of solar power generation ensures that the Project will not cause any significant adverse environmental and social impacts during construction and operation. The main project impacts are associated with clearing of shrub vegetation, waste management and management of labor camps at the site. Moreover, most of the associated impacts are limited to the construction phase and are temporary in nature. Adequate mitigation actions are undertaken in line with management and monitoring of a set of recommended mitigation measures. Regular monitoring of the recommended mitigation measures shall also be carried out during the implementation phase of the project.
Involuntary Resettlement	The project is classified category C for involuntary resettlement. The total land available for the project is 84.58 hectares (ha). The land acquired for the project is total private land and has been purchased on a voluntary basis (willing seller willing buyer basis) from the land owners. The sale of land was an opportunity to earn income from an otherwise unproductive land. The payment provided against the land purchased has helped farmers to find alternative land in a more fertile area or start an alternate livelihood. The solar power plant will be using the following associated facilities for the project: access roads, transmission lines and sub-station. The project will utilize the existing village road; no new roads will be built as part of this project.
Indigenous Peoples	The project is categorized C with respect to indigenous people. There were no permanent or temporary inhabitants dwelling on the site as confirmed by interviews with the local community/village residents during the site visit. Also, the land where the Project's solar power generation facility is being constructed is not owned, used, occupied, or claimed as ancestral domain or asset of any tribal groups.
Stakeholder Communication, Participation, and Consultation	Stakeholder consultations were held with the resident of the villages where Sand Land power plant is located. During public consultation meetings, villages were informed about proposed project, development prospects, project impacts and measures to mitigate possible negative impacts. The prospects of improving social and economic status of the region as a result of a successful project implementation as well as corporate social responsibility (CSR) activities of the Company were also discussed. The CSR activities proposed by the Company and to be taken up during the operational phase of the project include: solar light for temple; assistance for village schools; transportation facility; women empowerment programs; and drinking water facility. During site visit in February 2012, discussions were undertaken on an informal basis with a group of 7-8 community members from the villages who confirmed that they were made aware of the project. They indicated their satisfaction with the project which will bring more jobs to the village and opportunities to set up small businesses for construction and operational workers.

## Timetable for assistance design, processing and implementation

Concept Clearance	13 Aug 2012
Due Diligence	09 Feb 2012
Credit Committee Meeting	-
Approval	18 Sep 2012
PDS Creation Date	01 Oct 2013
Last PDS Update	28 Apr 2014

Project Page	<a href="https://www.adb.org/projects/44932-054/main">https://www.adb.org/projects/44932-054/main</a>
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