Luxembourg, CA meeting on 15 November 2016

Environmental and Social Data Sheet

Overview

Project Name:	IIFCL – Clean Wind Energy (Ratlam)
Project Number:	2016-0429
Country:	India
Project Description:	The project is an allocation under the IIFCL ENERGY SUSTAINABILITY & CLIMATE ACTION FL (2013-0339). The loan is to finance a 100 MW wind farm in the State of Madhya Pradesh including the required civil infrastructure and the connection to the national grid.

EIA required:	Yes
Project included in Carbon Footprint Exercise[1]:	Yes

Environmental and Social Assessment

Environmental Assessment

The wind farm consists of 50 wind turbines with a rated capacity of 2 MW and a hub height of 104 m each. The project features a dispersed location of wind turbines and is spread across nine villages of Dhar district in the state of Madhya Pradesh: Sergarh, Chandodiya, Kisanpura, Khiledi, Phuledi, Panda, Indrawal, Bor Jhadi and Gandwada of Badnawar and Sardarpur tehsils.

The wind turbines are connected to the 220/33 kV pooling Substation located at Khiledi village through 33 kV overhead lines. From there a 220 kV overhead transmission line of a stretch of 26 km evacuates the generated electricity to the 220/132 kV grid substation in Rajgarh.

The wind farm including its grid connection, if located inside the EU, would fall under Annex II of the EIA Directive 92/2011/EU leaving to the competent authority the decision as to whether an Environmental Impact Assessment (EIA) is required or not. According to applicable Indian law, wind power projects do not require an EIA. Consequently, no screening took place. However under the conditions established by the Bank under the related Framework Loan the final beneficiary was required to carry out an Environmental and Social impact Assessment (ESIA) study for the project.

[1] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

An ESIA study was conducted in April (and updated in May) 2016. The study articulates the relevant environmental and social impacts of the project including their mitigation in line with the requirements set by the Bank (whilst following the structure of IFC standards). As per this assessment the project is not expected to have significant adverse E&S impacts after mitigation. A corresponding Environmental and Social Management Plan (ESMP) has been devised.

The Bank carried out a site visit to assess the implementation status of ESMP and E&S aspects associated with the project site. The major observations and recommendations are summarised below:

The project has all the necessary permits and approvals from various regulatory bodies. Consent to Operate (CTO) and Consent to Establish (CTE) are available for this project. However, as per subsequent change of Indian law, wind power is classified as “White Category” under the classification scheme for the Indian industrial sectors, established by the Central Pollution Control Board (CBCB) and therefore exempted from the requirement to obtain these consents.

The project area is characterised by extensive agricultural use and several small settlements. There is no ecological sensitive area such as National Parks or Wild life sanctuaries in the project’s vicinity. The closest site of relevance is Sardarpur Wildlife Sanctionary, located in the south west of the wind park at a distance of about 15 to 20 km.

The project area has been categorized as “Over Exploited” zone by Central Ground Water Board (CGWB). Hence no bore well were used to meet the requirements of water during the construction period. The water requirement was consequently fulfilled through tankers’ water purchased from villagers, this provided additional source of income for villagers.

As part of the ESIA, a bird and bat survey was conducted in October 2015 to record the composition and distribution of avian species in the project region. Given the seasonally changing patterns of avian activity, secondary data was used in addition. The bird survey undertaken revealed that there is only one Schedule-I species (as per Indian Wildlife Protection Act, 1972) observed to be present in the study area. No bird species with endangered or vulnerable status as per IUCN’s red list was observed. The ESMP comprises mitigation measures to minimise risks on birds and bats. In addition, the ESIA recommends that a birds and bat mortality survey shall be conducted in operation stage at some selective WTG sites close to local water reservoirs and ponds. In case of unexpectedly high mortality of birds or bats, additional measures to reduce the possibility of collisions shall be adopted. This activity will be closely followed up by the Bank.

EIB Carbon Footprint Exercise

The operation of the wind farm has no direct greenhouse gas (GHG) emissions. Estimated GHG emissions savings in a standard year of operation are 226 kT of CO_2

equivalent per year compared to a baseline comprising the current fleet of thermal power plants, new coal power plants, and new renewable energy installations.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment

The project land comprises of private agricultural land and government land ("revenue land"). The land use permission for revenue land has been obtained in July 2015 by the State's New and Renewable Energy Department. The private land was procured on a "willing to buy and willing to sell" basis and sale deed agreement for all three private lands have been executed with a land price in line or above prevailing government rates. The project promoter has taken due consideration to the fact that the private land acquisition process does not impact the livelihood of those whose land has been acquired.

The project promoter has ensured that the entire wind farm area is not fenced/ barb wired. It therefore continues to provide access to the movement of livestock in the area for grazing purposes. However the access to certain areas such as transformers, sub stations, turbine towers etc. are fenced to avoid any health & safety hazards.

The project has no indigenous peoples' issues. The site does not contain any archaeological monuments. Access to open/ informal places of worship inside the project area are not blocked by the project activity.

In line with the recommendations made in ESMP, employment is provided to local people during project implementation and operation, especially as unskilled construction workers and security guards. This was verified at site through interactions with various stakeholders. Besides local people who represent the majority of workers, skilled workers were hired from outside during construction phase. They were accommodated in rented accommodation in nearby villages.

As per the ESMP the project promoter ensures that adequate job specific training incl. EHS induction training is provided to all relevant staff. During the site visit it was observed that workers are wearing personal protective equipment (PPE). Mock drills are being conducted and well documented. Corrective actions are also being taken based on the identified gaps during mock drill exercises. Mock drill and safety training plans are available at site.

Adherence to the child labour policy was found satisfactory at the site as per the requirements of 'The Child Labour (Prohibition and Regulation) Act, 1986'. The company mentions the related clauses on prohibition of child labour in their contracts with all vendors.

The project developer has established a well defined system to ensure that minimum wages are being paid to workers under Minimum Wages Act, 1948. The contractors'

muster rolls and attendance registers are cross checked by the finance team of project developer on monthly basis and in case of any deviation it is immediately bring to contractor's notice.

Occupational health and safety (OHS) standards are found satisfactory at the project site. Corresponding incident reports were reviewed by the Bank.

Some turbines are located less than 200 m from the existing settlements or dwellings which is low under international standards. Based on an adequate worst case modelling of shadow flicker effects in the ESIA, the project casts shadow flicker on up to 24 receptors for more than 30hrs/year. With regards to noise impacts, a worst case modelling in line with international standards indicates up to 30 receptors may be impacted above international standards. It is likely that a high number of these theoretically identified receptors are less impacted because of worst case modelling, temporary use of individual buildings, some building featuring walls facing the turbines, and locally high vegetation between receptors and turbines. However, residual risks remain and international thresholds may be surpassed in individual cases. The ESMP does not contain an obligation to measure noise and shadow flicker impacts during operation. If and where required, effective mitigation measures will need to be implemented by the promoter.

One receptor is a village school for 10-20 pupils which is 50-60m distant to one of the turbines. The promoter is in contact with the relevant administration to relocate the school to another site with significantly reduced risks imposed by the project. A similar issue affects a farmer's stable which is located on government land close to two turbines. Here as well the promoter is in contact with the authorities and the farmer to agree on relocation to a less affected site. Both processes are occurring post ESIA and may take several months to be completed. Resettlement Action Plans are not required but the promoter must still make sure that relocations take place in-line with the Bank's standards, based on proper consultation with affected people and parents. In the Bank's view, the school's location should really be in/walking distance to the settlement(s) it serves. The Bank follows this process closely up. A third party expert, satisfactory to the Bank, shall analyse these relocation processes and their compliance with the Bank's social standards.

A grievance redressal mechanism is in place at site. Village Development Committees (VDC) shall ensure a close contact to key village representatives. There is a room for further improvement of the promoter's community and stakeholder participation and the grievance redressal system particularly to address the potential impacts caused by noise and shadow flicker.

Public Consultation and Stakeholder Engagement

There is no requirement by law to pursue public consultation for wind farm projects in India.

In India, village citizens are generally represented by the Sarpanch (elected head) of their respective Gram Panchayat. The local Panchayat is the nodal body which provides permission in terms of Non-objection certificate (NOC) to a development

inside the administrative boundary of a village. The project developer has collected NOCs from all nine villages that are affected by the project.

The developer has pursued informal consultations with land owners during project development. Additional consultations were carried out as part of the ESIAs with the developer, land owners/ land sellers, local communities' etc. They all confirm that people were sufficiently informed about the project and are generally supportive to the project.

Consultations made during ESIA indicate that local people have additional expectations on the project regarding enhancement of quality of electricity supply, drinking water supply, healthcare, transportation facilities and cleaner sources of cooking fuels (LPG).

Targeted measures of this type should be addressed under the promoter's CSR programmes which are required by law.

It was observed that no formal stakeholder engagement mechanism exists as recommended under ESMP other than the grievance redressal mechanism. During the site visit this has also been brought to the notice of project promoter.

Other Environmental and Social Aspects

Implementation of the ESMP is monitored by the promoter on a periodic basis. The progress is submitted in a prescribed format by OEM contractor to the project promoter and then it is sent to top management for review. The corrective actions are planned based on the output of the review by management. Additional monitoring takes place through Bank services.

The project promoter is not yet certified with Integrated Management Systems (ISO 9001, ISO 14000 & ISO 18000) but planning to get certified in year 2017. However, the key contractors (Gamesa and Voltech) are certified with IMS.

Conclusions and Recommendations

The project is deemed acceptable to the Bank under the following conditions:

- The promoter to undertake that all relocations triggered by the project are implemented in compliance with the Bank's standards.

- The promoter to provide a third party expert analysis of all project relevant relocation processes and their compliance with the Bank's social standards, satisfactory to the Bank.

- The promoter to pursue noise and shadow flicker measurements at sensitive receptor during project operation, satisfactory to the Bank. If and where required by international standards, effective mitigation measures shall be put in place.

- The promoter to fully implement the mitigation measures defined in the ESMPs for the wind farm to the satisfaction of the Bank.

- The promotor to improve the community and stakeholder participation and the grievance redressal system particularly to address the potential impacts caused by noise and shadow flicker.

- The promoter to carry out Corporate Social Responsibility (CSR) measures in project regions over loan lifetime on a best effort basis and in consultation with the local people.

- The promoter to fulfil the Bank's project-specific E&S information and reporting requirements.