

Environmental and Social Completion Sheet (ESCS)

Overview

Project Name: *Ka Xu CSP Project*

Project Number: *2012-0340*

Country: *South Africa*

Project Description: The project concerns the construction and operation of a greenfield concentrated solar power (CSP) plant with 100 MW of installed power generating capacity.

Summary of Environmental and Social Assessment at Completion

The project consisted of the development, construction and operation of a 100 MW_e concentrated solar power (CSP) parabolic trough plant in the North West of South Africa, approx. 30 km north-east of Pofadder, a small town in the Northern Cape province of South Africa.

Under South African Law, and in reference to the National Environmental Management Act (NEMA) No.107 of 1998, the project required an EIA, including initial scoping and public consultation. Environmental Authorisation (AE) was received from the Department of Environmental Affairs (DEA) during April 2011. According to the EIA at appraisal, environmental project impacts related to effects on local vegetation and avifauna, water consumption and visual and noise impacts. A Water Use Licence (WUL) for the abstraction of water from the Orange River located 30 km from the project site was required in terms of the National Water Act (Act No. 36 of 1998) section 21 and the Department of Water Affairs approved this water abstraction with the WUL dated 27 June 2012. These environmental concerns were adequately mitigated during implementation and operation, and the impacts thereof were minor as the mitigating measures that were required in the environmental permit were effectively implemented.

The project did not involve any physical or economic displacement of local populations. Project social impacts were deemed to be overall positive, given the high levels of unemployment and poverty and the low levels of education in the surrounding areas, and the employment opportunities this project represented, in particular for low to semi-skilled workers. Negative social impacts such as those related to the presence of construction workers in the area were adequately mitigated.

EIB notes the following key Environmental and Social outcomes at Project Completion. Comprehensive Environmental Management Plan (EMP) and Social Impact Assessment (SIA) were prepared by qualified and reputable consultants as part of the EIA process and were updated and resubmitted to the DEA prior to commencement of implementation during May 2012. The EMP and SIA highlight appropriate management plans to control environmental and social risks identified at EIA stage. Once approved, the EMP and SIA must be implemented and adhered to. To assist the project in complying with the requirement of the EMP, an Environmental Control Officer was appointed for the project during implementation. All the necessary permits, licenses and authorisations were obtained in relation to the project. The project was successfully implemented without major environmental and social issues.

The baseline emissions are calculated assuming that electricity generated by the project will displace generation from a mix of existing thermal power (coal) and new generation (coal and renewable). Compared to this baseline, at appraisal the project was estimated to save ca. 265 kt CO₂-e/a. The promoter has used a different fuel for backup, hence at completion the project is estimated to save ca. 236 kt CO₂-e/a

The main environmental and social issues outstanding at project completion included:

- Soil erosion management, embankment rehabilitation and storm water drainage system, which is being continually monitored and has been included in punch list items and currently being addressed;
- Bird protection on the overhead powerline around the evaporation ponds, which have been subsequently installed;
- HTF spillages for which corresponding procedures have been established and a local company dealing with the hazardous waste removal being appointed;
- Continuous HIV/ AIDS management and education during the operation life of the plant.

Summary opinion of Environmental and Social aspects at completion:

EIB is of the opinion based on reports from the promoter, site visits by the EIB team and inputs provided by Lenders' Technical Advisors and quarterly and annual reports during construction and operation, that the Project has been implemented in line with EIB Environmental and Social Standards, applicable at the time of appraisal.