



European Investment Bank (EIB)

Luxembourg, 21 December 2020

Environmental and Social Completion Sheet (ESCS)

Overview

Project Name: EL SHABAB POWER PLANT
 Project Number: 2013-0298
 Country: Egypt
 Project Description: Conversion of existing Open Cycle Gas Turbine power plant to Combined Cycle Gas Turbine power plant in El Shabab, increasing generating capacity from 1000 MW to 1500 MW.

Summary of Environmental and Social Assessment at Completion

EIB notes the following key Environmental and Social outcomes at Project Completion.

The project consisted of the conversion of an open-cycle gas turbine power plant, first commissioned in 2011, to combined-cycle operation. The project significantly improved the generation efficiency of the plant, resulting in an increase in capacity and a 50 % increase in electricity output. The project is located at El Shabab in the Nile Delta, around 80 km north-east of Cairo and 33 km west of Ismailia City.

The project did not require an EIA under Egyptian legislation. Although the characteristics of this project did not require an EIA to be carried out, the existing EIA prepared for the original open-cycle power plant in 2010, did not take into account the future conversion to the combined-cycle operation. A number of complementary studies were commissioned by the promoter to investigate the additional impact of the project with regard to atmospheric emissions and air quality and noise, including a quantitative environmental risk assessment. Satisfactory completion of these studies and incorporation of recommended mitigating measures was required as a condition of disbursement in order to ensure that the environmental and social impact of the project were acceptable. An updated EIA report covering the complementary studies was submitted to the Bank and was considered to satisfy the requirements for disbursement.

The studies covered the main operational impacts of the plant including the release of atmospheric pollutants (mainly NO_x and CO₂) to be mitigated by the choice of low-pollution and high-efficiency technology, as well as continuous monitoring of plant performance and emissions. NO_x emissions are controlled by dry low-NO_x combustors resulting in emissions below 50 mg/Nm³. The additional studies resulted also in a major change in the original scope of the project: In order to avoid a discharge of high salinity waste water to El Dawaweas Canal, three deep injection wells were developed and tested in cooperation with the Research Institute for Groundwater at the National Water Research Center, and are now in operation.

Monitoring and control of the plant following its conversion to combined-cycle operation is carried out under the already existing procedures applied for the open-cycle plant, including monitoring and record keeping of exhaust stack emissions, ambient air quality, noise, quality of water discharge and waste management.



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Summary opinion of Environmental and Social aspects at completion:

EIB is of the opinion based on reports from the promoter during construction that the Project has been implemented in line with EIB Environmental and Social Standards, applicable at the time of appraisal.