

Environmental and Social Data Sheet

Overview

Project Name:	EAC VASILIKOS CCGT UNIT 6
Project Number:	2019-0376
Country:	Cyprus
Project Description:	Installation of a new Combined Cycle Gas Turbine power plant at Vasilikos Power Station.
EIA Required:	Yes

Project included in Carbon Footprint Exercise¹: Yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The Project comprises the design, construction, operation and maintenance of a 130-160MWe gas fired Combined Cycle Gas Turbine (CCGT) power plant to be located at the EAC power facility in Vasilikos, Cyprus. At the time of appraisal the specific technology supplier was not selected as the procurement process was still underway by the promoter.

By virtue of its technical characteristics, the Project falls under Annex I of the EIA Directive (Directive 2014/52/EU amending 2011/92/EU) and as such the Promoter undertook a full Environmental Impact Assessment (EIA) for the power plant within the framework of the Cypriot environmental legislation.

A comprehensive EIA has been carried out by the Promoter, it assesses impacts during construction and operation and accordingly proposes mitigation measures where required. On this basis, the competent authority has issued the environmental permit for the project. Main impacts during construction and operation are expected to be; traffic, noise emissions, exhaust emissions to air and water, liquid and solid waste generation. These will be managed and monitored by the Promoter using a customised Environmental Management System.

The plant technical specification requires compliance with Best Available Techniques (BAT) as per Commission Decision 2017/1442 of 31 July 2017 under Directive 2010/75/EU on large combustion. The reduction of NOx emission will be facilitated by installation of Low NOx combustion systems in the gas turbines, which allow for guaranteed maximum emission of 15ppmv during operation on natural gas and 45ppmv should operation on backup distillate fuel be required. The maximum duration of firing on backup distillate fuel would be expected to be no more than 500 hours per year, if any.

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

Luxembourg, 16/12/2020

At this point in the project implementation timeline the following authorisations have been issued by the competent authorities:

- N.57(I)/2001: Environmental Permit
- N.90/72: Planning Permit

EIB Carbon Footprint Exercise

In accordance with the Bank's current Carbon Footprint methodology it is calculated that based on the avoidance of electricity generation from a combination of existing and new power plants in Cyprus (50% operating margin and 50% build margin), the total relative effect of the Project is a net reduction in CO₂ equivalent emissions by around 77ktCO₂e/yr. The absolute emissions from the plant are estimated at around 500 ktCO₂e/yr.

The Emissions Performance Standard (EPS) of the plant is estimated at 380gCO₂/kWh when firing natural gas, which is below the lending policy EPS of 550gCO₂/kWh in force at the time of project was approved for the Bank's appraisal. Should the plant be required to run on distillate backup fuel, the EPS would be estimated at around 510gCO₂/kWh. However, use of backup fuel would mainly arise in the event of an interruption to gas supply, and such event would be expected to be temporary in nature.

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.

Public Consultation and Stakeholder Engagement

Public consultation was undertaken as required by Cyprus regulations. The Promoter has indicated that no major issues were raised during the consultation process.

Other Environmental and Social Aspects

The Promoter will develop and implement, during construction and operations phases, an Environmental Management System (EMS) to facilitate the effective management of environmental aspects of the project.

Conclusions and Recommendations

Considering the environmental information and assessments provided by the Promoter, the Project is deemed to be acceptable for Bank financing in environmental terms. The Bank will require the Promoter to submit Project monitoring reports in line with Bank requirements during Project implementation and after the first year of operations.