

Public

Environmental and Social Data Sheet

Overview

Project Name:	MARGHERA LEVANTE CCGT REDEVELOPMENT
Project Number:	2019-0451
Country:	Italy
Project Description:	Construction of a new state of the art CCGT power plant in the existing Marghera Levante Power facility.
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 770 MWe gas fired Combined Cycle Gas Turbine (CCGT) power plant to be located at the Edison Marghera Levante power complex, in the town of Mestre, adjacent to Venice in North Eastern Italy.

The project will replace an equivalent amount of older less efficient gas fired generation at the Marghera Levante power complex. The project is important in the context of maintaining security of supply. The Italian National Energy and Climate Plan (NCEP) indicates that coal generation will be phased out by 2025. This equates to approximately 7.5GW of coal capacity retirements which needs to be replaced by the power system.

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 Italian environmental legislation.

The proposed power plant site is adjacent to a site of the NATURA 2000 network, more specifically to the site “Laguna di Venezia” which is both a birds SPA (IT3250046) and habitats SCI (IT3250030). For this reason, the competent authority requested two special studies to be undertaken – one on the cooling water discharge and options, and a second on impacts on species. Extensive literature review and field work by specialists was undertaken as part of these studies in order to collect sufficient, documented and reliable data on the existing environmental status in the vicinity of the project area.

Based on the evaluation of the particular project characteristics of the proposed site of the technical/environmental characteristics of the proposed Project, it is assessed that subject to respecting the conditions in the environmental approvals, the Project will have no unacceptable impact on the environment.

The authorized emissions of NO_x and CO will respect the latest BAT (Best Available Techniques) requirements for Large Combustion Plants. The gas turbine will be equipped with DLN (Dry Low NO_x)

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.

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burners of the most advanced technology, to minimise pollutant emissions into the atmosphere (NO_x and CO). Additionally, the HRSG will be equipped with a catalytic abatement system (SCR) to obtain a further reduction of NO_x emissions.

All necessary authorisations have been issued by the competent authorities, as follows:

- Environmental Compatibility Decree n°348 (following EIA procedure) issued on 20/12/2018.
- IPPC permit renewal decree n°169 issued on 31/05/2019.
- Integrated permit to build and operate modification decree N° 55/03/2019 issued on 17/04/2019.

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 Italy (50% operating margin and 50% build margin), the total relative effect of the Project is a net reduction in CO₂ equivalent emissions by around 300 kt CO₂e/yr. The absolute emissions from the plant are estimated at around 1,600 kt CO₂e/yr.

The Emissions Performance Standard (EPS) of the plant is estimated at 325 gCO₂/kWh which is below the lending policy EPS of 550 gCO₂/kWh in force at the time of project was approved for the Bank's appraisal.

The new power plant will have a significantly improved electrical efficiency compared to the existing plants being decommissioned (62.8% against approximately 50%).

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 Italian regulations. The Promoter has confirmed that no major issues were raised during the consultation process.

Other Environmental and Social Aspects

Marghera Levante power plant is part of the Promoter's power asset department, which has implemented an HSE integrated management system to monitor all its relevant operational and management processes. In this regard the organisation has established processes and a management system in accordance with the requirements of:

- International Standard UNI EN ISO 14001: 2015.
- BSI OHSAS 18001: 2007 Specification.
- Regulation EMAS CE 1221/2009.
- International Standard UNI EN ISO 50001: 2018

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 the first year of operations.