

Environmental and Social Impact Assessment (ESIA) for Upgrading West Damietta Power Plant

Client

East Delta Electricity Production Company (EDEPC), and the Egyptian Electricity Holding Company (EEHC)

Scope of Work

Environmental and Social Impact Assessment (ESIA)
Quantitative risk assessment

Location

Damietta, Egypt

Types of Activities

Measurements and preparation of the study

West Damietta site is located on the southern shoreline of the Mediterranean Sea, about 200 km from north Cairo along the railway which connects east Damietta to west of the site parallel to the International Coastal Highway.

The Egyptian Electricity Holding Company (EEHC) constructs and operates a new Combined Cycle power plant at the existing West Damietta gas turbines plant.

The power plant has been operating since 2012; the proposed Combined Cycle Power Plant is 750 MW comprising four existing 125 MW Gas Turbine Generators (GTGs), each with a nominal electricity generating capacity of 125 MW and four Heat Recovery Steam Generators (HRSGs) utilizing the GTGs to produce enough steam in order to generate 250 MW in a steam turbine, which will be known as West Damietta Combined Cycle Power Plant.

The power output from the proposed plant will be sold to the Egyptian Electricity Transmission Company (EETC). The new project aims to convert the existing simple cycle to a combined cycle plant, which reduces the gas turbines' exhaust gas temperature.

The power plant utilizes both natural gas and solar; this "dual-fuel" operability provides security of electricity provision in the event that gas supplies are unavailable for any reason. In addition, a small emergency generator operating on solar oil will also be provided on-site to operate key equipment within the power plant in the event of power supply failure.

The Environmental and Social Impact Assessment (ESIA) report is prepared by ECG, based on many baseline studies undertaken by independent national and international consultants and on the information provided by EEHC, EDEPC and their sub-contractors.

