Environmental and Social Impact Assessment (ESIA) for upgrading El-Shabab 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
Ismailia, Egypt

Types of Activities
Measurements and preparation of the study

On a total area of approximately 87,248 m^2, Al-Shabab site is located at the north western of Ismailia governorate, about 79 km from Markaz At-Tall Al-Kabir at the north eastern of Cairo. The existing Al-Shabab gas turbine power plant has three Gas Turbine Generators (GTGs) (3x33.5 MW).

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

The power plant will start operation by the year 2016-2017; the Combined Cycle Power Plant is 1500 MW, with a nominal electricity generating capacity of 125 MW eight Heat Recovery Steam Generators (HRSGs) to produce enough steam in order to generate 2x250 MW using two identical steam turbines, which will be known as Al-Shabab 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 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.