European Investment Bank

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Environmental and Social Data Sheet

This draft ESDS is published for information purposes and cannot be considered to represent the final position of the EIB regarding the environmental and social aspects of the project. Until a decision to finance the project is taken by the EIB's Board of Directors, this document may be subject to changes. Once a decision is taken, the final document will be published in the Public Register on the EIB website. Questions and comments regarding this draft ESDS can be addressed to InfoDesk@eib.org.

Overview

Project Name:	OBELISK SOLAR PV AND BESS
Project Number:	2025-0320
Country:	Egypt
Project Description:	The project consists of the construction and operation of a 1.125 GWp solar PV plant with an associated 100 MW/200 MWh battery energy storage system (BESS) located in Qena, Egypt.

E&S Risk Categorisation:	High risk as per 4.18 of E&S Policy
Project included in Carbon Footprint Exercise[1]:	Yes

Environmental and Social Assessment

The project required and EIA study under the national environmental legislation. Therefore the project is categorised as 'High Risk' in accordance with the EIB Environmental and Social Policy (paragraph 4.18).

Environmental Assessment

The project consists of the construction and operation of a grid-connected solar PV plant with a capacity of a 1.1 GWp, along with an associated 100 MW / 200 MWh battery energy storage system (BESS). The project is located in the Nagaa Hammadi area of the Qena Governorate, in Egypt, a desert area close to a large industrial zone. The project comprises the following main components: a photovoltaic (PV) plant including solar modules, a tracking system, inverters, an overhead, 5 km, medium-voltage corridor, step-up transformers as well as a 100 MW / 200 MWh Battery Energy Storage System (BESS) and an on-site 33/220 kV high-voltage transformer station. The project will connect to the electricity grid via a high-voltage 220kV overhead transmission line (OHTL) with a length of c. 12 km and linking to the existing Nagaa Hammadi substation. The OHTL line and existing Nagaa Hammadi substation are considered associated facilities and do not form part of the scope to be financed by the EIB. The OHTL will be built adjacent to existing high-voltage lines and consists of two segments: a southern segment

[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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(7.8 km, new towers in desert land) and a northern segment (3.7 km, cable replacement on existing towers crossing agricultural land). At present, the project is at an advanced stage of implementation, with most earthworks completed, around 50% of the PV modules installed, the 33/220 kV transformer station nearing completion and the majority of towers for the high-voltage overhead line already in place.

In accordance with Egypt's Environmental Law No. 4/1994 (as amended by Laws 9/2009 and 105/2015) and its Executive Regulations, the Obelisk PV and BESS project is subject to an environmental impact assessment (EIA). The project has been classified by the Egyptian Environmental Affairs Agency (EEAA) as a 'Category Scoped-B' project, which requires an EIA study focusing on specific components with potentially significant impacts, but does not require public consultation under national law. The Competent Administrative Authority (CAA) for the project is the New and Renewable Energy Authority (NREA), which is responsible for submitting the EIA to EEAA for review and approval.

Due to classification of the project by one of the lenders involved in its financing, a full-scale Environmental and Social Impact Assessment (ESIA) -including public consultation- was required. The promoter hired an external consultant to prepare a comprehensive ESIA report. The ESIA covers all project components, including a high level assessment of the associated overhead transmission line (OHTL), and recent design modifications such as increased land area, additional PV modules, and the introduction of an internal 33kV overhead line within the project site. The ESIA report was submitted to the EEAA and the environmental authorisation for the project, covering the solar PV plant and the BESS, was issued on 08/03/2024.

The 220 kV overhead transmission line is classified as a 'Category C' project under Egyptian environmental regulations, as its length exceeds 5 km. Category C classification requires a full Environmental and Social Impact Assessment (ESIA), including scoping and stakeholder consultation activities, due to the potential for significant environmental and social impacts. The OHTL will be constructed, operated and owned by the Egyptian Electricity Transmission Company (EETC) -it is outside of the scope of works of the promoter. The ESIA was prepared by EETC and submitted to competent authority. The issuance of the relevant environmental authorisation is pending.

Both ESIAs conclude that with the implementation of the proposed management plans, the identified environmental and social impacts can be well managed, resulting in low residual impacts.

The project site covers approximately 2000 hectares and is characterized by bare ground habitat, with no permanent vegetation or water bodies. A field survey conducted in 2024 confirmed the absence of flora within the site, although sparse desert shrubs such as *Prosopis farcta*, *Caroxylon imbricatum*, and *Zygophyllum coccineum* may occur in adjacent flood paths. The OHTL route is classified as 'modified habitat' in the ESIA report (i.e. areas that have been significantly altered by human activity and no longer support native ecosystems), with the southern segment being desert and the northern segment crossing reclaimed agricultural land.

The present fauna is typical of arid desert ecosystems. Potential reptilian species include *Cerastes vipera*, *Cerastes cerastes*, and *Psammophis aegyptius*, which are adapted to sandy, vegetation-sparse environments. Mammals such as *Vulpes rueppellii* (Rüppell's Fox), *Jaculus jaculus* (Lesser Egyptian Jerboa), and *Gerbillus pyramidum* may occur, though no critical habitats are present according to the standards on which the assessment was based and as concluded in the ESIA report for the solar PV plant and BESS. The farmland habitats along the northern section of the OHTL route may attract species such as *Psammophis sibilans* (*Striped Sand Snake*), *Psammophis aegyptius* (*Saharan Sand Snake*), *Spalerosophis diadema* (*Diadem Snake*), *Eryx colubrinus* (*Kenyan Sand Boa*), and *Sclerophrys regularis* (*African Toad*), as included in the ESIA report for the OHTL. The ESIA reports conclude that the impacts on these species, during the construction and operational phase of the project, are expected to be minor. Avifauna includes 17 migratory bird species with low passage intensity over the site. Notably, the Egyptian Vulture (*Neophron percnopterus - IUCN: Endangered*) and Pallid Harrier (*Circus*

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macrourus - IUCN: Near Threatened) are species of conservation concern, though the site lacks resources (food, water, shelter) that would attract or support significant bird populations. Based on data extracted utilising the Migratory Soaring Bird Tool (MSBT) developed by BirdLife International (BI), the ESIA report for the OHTL confirms that the sensitivity index for migratory birds is low, indicating minimal risk.

The ESIA report for the solar PV plant and BESS states that the project site is not located within or near any Key Biodiversity Areas (KBAs), Important Bird Areas (IBAs), or legally protected areas. The ecological value is considered low to moderate, with minimal ecosystem services provided.

Similar for the OHTL route, the ESIA report states that the area does not encompass any Key Biodiversity Areas (KBAs), Important Bird Areas (IBAs), or legally protected areas. The closest protected area, the Upper Nile IBA, which is located c.40 km east of the of the project.!u

According to the ESIA report for the solar PV plant and BESS, and the ESIA report for the OHTL, during the construction phase, the main anticipated impacts include:

- Air emissions and dust generation from earthworks, vehicle movements, and operation of generators,
- Noise and vibration arising from construction machinery and transport activities,
- Generation of hazardous and non-hazardous waste, including packaging materials, used oils, and domestic waste,
- Temporary disturbance to local biodiversity, particularly to avifauna,
- In the northern segment of the OHTL, temporary use of agricultural land for stringing equipment may cause minor crop damage.

During the operational phase, potential impacts include:

- Noise from transformers,
- Generation of wastewater and solid waste from operation and maintenance activities,
- Risk of bird collision and electrocution associated with internal and external overhead transmission lines (OHTLs),
- Minor visual and glint/glare impacts, mitigated through careful facility layout and design.

Mitigation measures proposed in the ESIA reports include:

- Dust suppression, speed control, and maintenance of access roads,
- Noise management through equipment maintenance, scheduling, and, where necessary, use of silencers or enclosures.
- Waste minimisation, segregation, safe storage, and disposal through licensed contractors,
- Biodiversity protection measures such as bird deterrents and appropriate insulation along transmission lines and the installation of perimeter fencing designed with apertures large enough to allow the safe movement of local wildlife,

Monitoring activities will include:

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- Periodic air quality and noise measurements,
- Routine inspections of bird deterrents, tower insulation, and wildlife crossings,
- Waste management tracking and audits of contractor performance,
- Regular surveys to monitor avian mortality along the OHTL.

The ESIA report for the project includes a cumulative impact assessment, conducted in accordance with the methodology outlined in IFC's "Good Practice Handbook on Cumulative Impact Assessment and Management." It considers potential interactions with other developments in the area, particularly during the construction phase. Key cumulative impacts identified include temporary pressure on local water resources and wastewater treatment capacity, increased traffic from the transport of materials and equipment, localized air quality degradation, and worker influx. These impacts may overlap with activities from nearby projects such as the light industrial zone east of the site, ongoing infrastructure upgrades nearby, and the large aluminium industrial complex adjacent to the Nagaa Hammadi Substation. However, the ESIA report concludes that these cumulative effects are expected to be short-term, localized, and insignificant, especially given the remote location of the site and the fact that most contractors will hire locally, which will reduce the worker influx. Mitigation measures such as coordinated traffic management, and sourcing from local suppliers are proposed to ensure cumulative impacts remain within acceptable thresholds. These findings are integrated into the Environmental and Social Management Plan (ESMP). The ESIA for the OHTL concludes that, since the new OHTL will run parallel to existing overhead transmission lines (OHTL), the additional environmental impacts -especially on birds- are expected to be insignificant. The presence of the adjacent existing OHTL means that the new line does not introduce substantial new risks

The ESMP, embedded in the ESIA report, provides the operational framework for managing environmental and social performance throughout the project lifecycle. It defines clear roles, responsibilities, and procedures for compliance, monitoring, and continuous improvement. The promoter has also prepared an Environmental and Social Action Plan (ESAP) to ensure that these mitigation and monitoring measures are effectively implemented and in line with lender requirements. The actions envisaged in the ESAP will be monitored on an annual basis.

Climate Assessment

Climate change mitigation:

The project substantially contributes to the climate change mitigation objective.

Climate change adaptation:

Residual risks from physical climate hazards are deemed low.

Paris Alignment of projects:

The project has been assessed for Paris alignment and is considered to be aligned both for low carbon and resilience goals against the policies set out in the Climate Bank Roadmap and the Bank's Energy Lending Policy.

EIB Carbon Footprint Exercise

Estimated annual emissions related to the project:

- 0 ktonnes of CO2 equivalent per year for absolute emissions.

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- -1514 ktonnes of CO2 equivalent per year for relative emissions.

The direct CO2 equivalent emissions of solar PV farms and BESS are negligible.

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.

Social Assessment

The Obelisk PV Project is located on unoccupied, state-owned desert land. The ESIA report confirms that there are no land ownership claims or existing land uses within the project site; therefore, no physical or economic displacement is expected.

For the OHTL, no new towers will be installed along the segment crossing agricultural land and the nearby El-Baraka village. In these areas, only conductors will be installed on existing towers. The ESIA report prepared for the associated facilities states that no physical or economic displacement is expected along the route of the line. Accidental damage(s) to crops during installation works will be addressed via an appropriate compensation mechanism.

The ESAP and Environmental and Social Management Plan (ESMP) prepared for the project, together provide also the framework for managing social risks and ensuring that stakeholder engagement, grievance handling, and labour practices remain consistent with lender standards throughout the project lifecycle.

One of the project's main social risks and impacts relate to traffic, increased presence of workers and labour risks. Increased traffic associated with the project, in particular during the construction phase, may pose some safety risks to surrounding communities. Any worker accommodation needed for the project will comply with the lenders' standards.

The project is expected to have appropriate Health, Safety and Environment (HSE) provisions in place, including a site specific HSE Management Plan and qualified promoter staff on-site to ensure compliance with labour legislation and Lender's E&S requirements. The promoter has a system in place to ensure HSE requirements are cascaded down to subcontractors and suppliers on the project.

As a positive social contribution, the project prioritises local employment, with approximately 85% of the workforce recruited from nearby communities. This approach supports local livelihoods and reduces pressure on local housing and services.

Public reports are pointing out the possibility of use of forced labour in the supply chain of solar PV panels. The project sponsor, Scatec, will supply the PV modules for the project and has a Supplier Conduct Principles and Transparency Act Statement in place. Both refer to the prohibition of forced labour. The Supplier Conduct Principles is included in the framework agreements between the promoter and the PV module suppliers, along with a specific clause addressing forced labour. The promoter has made reasonable efforts to assess and address the risks associated with the supply of the PV panels for the project by performing an enhanced due diligence on the supplier of the PV Panels. The promoter has obtained a supply chain mapping and a traceability audit has been performed for the supplied modules, confirming the origin of polysilicon and other key materials.

Public Consultation and Stakeholder Engagement

Initial stakeholder consultation activities were initiated at the scoping and ESIA report stage and included meetings and disclosure sessions held in October 2024 with representatives from the Qena

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Governorate, local communities, farmers, NGOs, industrial zone managers, and service providers. These consultations helped identify key environmental and social concerns, confirmed land ownership status, and resulted in informing the ESIA and mitigation measures. Copies of the ESIA report and its executive summary were made available for the public at the Qena Governorate information center.

A public consultation meeting related to the OHTL was held on May 21, 2025, in Qena city.

A comprehensive Stakeholder Engagement Plan (SEP) was developed for the project, to guide ongoing engagement throughout construction and operation. The SEP outlines tailored communication channels—including face-to-face meetings, social media, flyers, and focus group discussions. The SEP also includes provisions for monitoring, reporting, and updating of engagement activities.

The SEP includes a Community Grievance Redress Mechanism for both workers and external stakeholders and a Grievance Mechanism for Gender-Based Violence and Sexual Assault and Harassment .

A full-time Community Liaison Officer (CLO) will be assigned to the site to maintain ongoing dialogue with local communities and relevant stakeholders, manage the grievance process, and support the identification of local communities for labour and contracting opportunities, in line with the project's SEP.

Other Environmental and Social Aspects

The promoter, Scatec, has experience in developing and building similar projects in the country (e.g. Benban solar complex) and worldwide. Scatec is ISO 9001 (quality management), ISO 14001 (environmental management) and ISO 45001 (occupational health & safety management) certified. E&S responsibilities are fully integrated into the promoter's teams both at corporate and at project level. Scatec has the experience and the capacity to implement and operate this project in line with the Bank's requirements.

Conclusions and Recommendations

The ESIAs reports for the project and associated facilities are completed, and the relevant documentation only identifies limited residual environmental risk, subject to the implementation of the measures envisaged in the reports.

Environmental and Social Conditions

- The promoter will be required to make reasonable efforts to carry out appropriate due diligence throughout its supply chains, with the aim of preventing the use of forced labour in the supply chains of the solar panels that will be used for this project. The outcome will be reported to and reviewed by the Bank.
- The project shall comply with the relevant provisions of the Bank's labour standard, which foresees zero tolerance for the use of forced labour.
- The promoter shall store and keep up to date all documents relevant for the project supporting the compliance with permits and environmental approvals, and shall promptly upon request deliver such documents to the EIB.
- The promoter will submit to the Bank annual E&S performance reporting (including progress on ESAP implementation, SEP implementation, resolution of grievances, etc).

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Based on the information available and with appropriate conditions and monitoring, the project is acceptable for EIB financing in environmental and social terms.