

**INTEGRATED SAFEGUARDS DATASHEET
APPRAISAL STAGE**

I. Basic Information

Date prepared/updated: 10/13/2005

Report No.: AC1811

1. Basic Project Data

Country: Egypt, Arab Republic of	Project ID: P091945	
Project Name: EG-EL TEBBIN POWER		
Task Team Leader: Anna Maria Bjerde		
Estimated Appraisal Date: October 13, 2005	Estimated Board Date: February 16, 2006	
Managing Unit: MNSIF	Lending Instrument: Specific Investment Loan	
Sector: Power (100%)		
Theme: Infrastructure services for private sector development (P); Analysis of economic growth (S)		
IBRD Amount (US\$m.):	259.30	
IDA Amount (US\$m.):	0.00	
GEF Amount (US\$m.):	0.00	
PCF Amount (US\$m.):	0.00	
Other financing amounts by source:		
BORROWER		189.20
<u>Financing Gap</u>		<u>0.30</u>
		189.50
Environmental Category: A - Full Assessment		
Simplified Processing	Simple <input type="checkbox"/>	Repeater <input type="checkbox"/>
Is this project processed under OP 8.50 (Emergency Recovery)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

2. Project Objectives

The project development objectives are to: (i) assist the GOE in reaching its goal of providing the country with energy supply in a sustainable manner, through investment in new generation capacity, and (ii) help the GOE further develop the sector by engaging in policy dialogue and supporting a number of measures aimed at improving the longer-term efficiency and sustainability of the sector. These measures would focus on contribution towards improved financial performance, strengthening the functions of the regulator, and energy efficiency. Input would also be provided to the development of the legal framework for the sector.

3. Project Description

The proposed project is a 650 MW power plant comprising two 325 MW net capacity steam turbines using natural gas as the main fuel and residual oil (mazout) as emergency fuel. The total project costs are estimated at US\$448.8 million, of which the Bank has been requested to finance US\$259.6 million. The plant would be built on an existing site that covers an area of 100,000 m², about 200 meters from the Nile River. The existing plant includes three 15 MW steam units operating on mazout and two 23 MW gas turbine

units operating on natural gas. The units date back to 1958 and 1979, respectively, and stopped operation in June 2005 and are currently being decommissioned. The site will be cleaned and prepared for the proposed project. A gas pipeline already reaches the site, and power can be evacuated to the transmission network. However, upgrading of the gas pipeline and the transmission network will be required to accommodate the larger power production plant. The upgrading is expected to follow the existing routing, thus no right of way or land acquisition are expected. Make up and cooling water for the plant will be drawn from the Nile, and returned to the Nile via a discharge structure to be located on the Nile bank.

The project components are: (i) demolition of existing plant and site preparation works to accommodate the new power plant, including the decommissioning of the existing plant and removal from site of existing equipment and debris resulting from demolishing of existing buildings; (ii) engineering services to include design, procurement and construction management services; (iii) environmental monitoring equipment; (iv) water intake and discharge structure to include pump house building, pumps and mechanical and electrical equipment; (v) new power plant to include 2 x 325 MW net capacity steam turbines, 2 steam generators and auxiliary boiler, 2 transformers and auxiliary transformer, water treatment plant, stack, instruments and panel controls, switchgear, civil works, critical piping, mechanical and electrical equipment, switchyard, yard tanks; and (vi) interconnection to the national power grid. In addition, the project includes a technical assistance component aimed at improved sector performance.

4. Project Location and salient physical characteristics relevant to the safeguard analysis

The project location is at the site of the existing El-Tebbin power plant about 40 km south of Cairo. The site is situated on about 100,000 m² wedge-shaped piece of land located in a high density industrial area. On the west side of the site is a 4-lane highway and across this highway is the River Nile. The site lies within an area which was designated as industrial, according to the Cairo land use plan, updated in 2000 to be the Comprehensive Development Long-Term Plan until 2017.

5. Environmental and Social Safeguards Specialists

Mr Knut Opsal (MNSRE)

Mr Maged Mahmoud Hamed (MNSRE)

6. Safeguard Policies Triggered	Yes	No
Environmental Assessment (OP/BP 4.01)	X	
Natural Habitats (OP/BP 4.04)		X
Forests (OP/BP 4.36)		X
Pest Management (OP 4.09)		X
Cultural Property (OPN 11.03)		X
Indigenous Peoples (OD 4.20)		X
Involuntary Resettlement (OP/BP 4.12)		X
Safety of Dams (OP/BP 4.37)		X
Projects on International Waterways (OP/BP 7.50)		X
Projects in Disputed Areas (OP/BP 7.60)		X

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: The Bank's Safeguard Policies have been made available to the Egyptian Electricity Holding Company (EEHC) and the implementing agency, Cairo Electricity Power Company (CEPC). Furthermore, Terms of Reference for an Environmental Impact Assessment (EIA) were developed under the Bank's overall guidance. The EIA was conducted by an Egyptian independent consultancy firm, Speedotrans, and financed by EEHC. The study evaluated the project's potential environmental risks and impacts in its area of influence. The project has positive impacts through the generation of electricity to meet the increasing demand, and will provide employment opportunities for the local workforce during the construction and operation phases. The main potentially negative impacts are those related to cooling water extraction and return from/to the Nile, air quality impacts from the stack emission, and impacts during construction. The implementation of the Environmental Management Plan included in the EIA should result in acceptable residual impacts. The social impacts were evaluated and are considered acceptable, since no land uptake or resettlement is envisioned, and a voluntary re-employment program has been put in place for workers during demolition and construction.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

Assessment using physical and mathematical models revealed that no unacceptable indirect or long term impacts exist assuming proper mitigation and monitoring schemes indicated in the Environmental Management Plan are implemented.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Several alternatives were considered as a part of the EIA including electricity supply, siting and technology alternatives. These were compared against the "no action" alternative, which would result in the demand for electricity exceeding supply, with an increasing deficit as demand increases in the future; a situation with significant social and

economic implications. Regarding electricity supply, alternatives considered included importing electricity, utilizing renewable energy, rehabilitation of existing power plants, transmission and distribution investments, and expanding the BOOT/IPP projects. The EIA provides rationale for discounting all of these alternatives, in favor of building the new power plant. Alternative technology considered is the combined cycle process, which was determined to be less feasible than the selected steam cycle because of issues of operational and fuel flexibility, grid stability, possible risks of the new combined cycle technology, and the optimal overall production mix determined by EEHC.

Environmental impacts of the Tebbin site were commensurate with those at other sites. However, the Tebbin site is superior to other sites since it is closer to the high demand region in greater Cairo, it is located in a designated industrial area, and it has an existing workerâ€™s colony.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described. EEHC and CEPC have not had experience with Bank requirements, per se, for a long time. However, the construction and operation of recent constructed thermal power plants are reported to have followed strict environmental discipline. Furthermore, for any of the other newly constructed plants, EEHC had to carry out a full EIA to obtain the necessary approvals from the Egyptian Environmental Affairs Agency (EEAA). EEHC has an Environmental Management and Studies Department, which will ultimately be responsible for the supervision of the implementation of the Environmental Management Plan. During construction, the EIA calls for the formation of an Environmental Management Unit. Overall, EEHC is believed to have the necessary capacity to carry out the task of EMP supervision.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. A number of consultations with the affected people and the key stakeholders have taken place during the preparation of the EIA. The first round of consultation took place during the scoping stage of the EIA and was held on June 7, 2005 with the purpose of defining the scope of work to ensure focus on the most relevant environmental and social issues based on feedback from the participating stakeholders. The second widely publicized consultation took place on September 4, 2005, which was announced in the daily newspaper well in advance, in addition to invitations sent out to ministries, EEAA, NGOs, and staff of the power sector. In addition, a number of focused group meetings were carried out with the local population surrounding Tebbin, and, in particular, with local fishermen.

B. Disclosure Requirements Date

Environmental Assessment/Audit/Management Plan/Other:

Date of receipt by the Bank	10/06/2005
Date of "in-country" disclosure	10/06/2005
Date of submission to InfoShop	10/13/2005

For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors 10/13/2005

*** If the project triggers the Pest Management, Cultural Property and/or the Safety of Dams policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

If in-country disclosure of any of the above documents is not expected, please explain why:

In-country disclosure has taken place in the following places, easily accessible to the public: EEAA, EEHC's Public Relations Department, CEPC's Public Relations Department, the Cairo Governorate Environmental Office and the El-Tebbin Power Plant Site Management Office.

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?	Yes
If yes, then did the Regional Environment Unit review and approve the EA report?	Yes
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	No

BP 17.50 - Public Disclosure

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes
Have costs related to safeguard policy measures been included in the project cost?	Yes
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes

D. Approvals

<i>Signed and submitted by:</i>	<i>Name</i>	<i>Date</i>
Task Team Leader:	Ms Anna Maria Bjerde	10/13/2005
Environmental Specialist:	Ms Dahlia Lotayef	
Social Development Specialist	Ms Concepcion Esperanza Del Castillo	
Additional Environmental and/or Social Development Specialist(s):		
<i>Approved by:</i>		
Regional Safeguards Coordinator:	Mr Sherif Kamel F. Arif	
Comments:		
Sector Manager:	Mr Jonathan D. Walters	
Comments:		