

Integrated Safeguards Data Sheet (Updated)

Report No: AC562

Section I - Basic Information

Date ISDS Prepared/Updated: 01/13/2004

A. Basic Project Data (from PDS)

I.A.1. Project Statistics

Country: EGYPT, ARAB REPUBLIC OF	Project ID: P050567
Project: EG-SOLAR THERMA (GEF)	Task Team Leader: Anna Bjerde
Authorized to Appraise Date: May 2, 2005	IBRD Amount (\$m):
Bank Approval: November 1, 2005	IDA Amount (\$m): Global Supplemental Amount (\$m): 50.00
Managing Unit: MNSIF	Sector: Renewable energy (50%); Power (40%); General energy sector (10%) Theme: Other environment and natural resources management (P); Infrastructure services for private sector development (P); Access to urban services for the poor (S)
Lending Instrument: Specific Investment Loan (SIL)	
Status: Lending	

I.A.2. Project Objectives (From PDS):

The project development objectives are to increase the use of renewable energy sources in Egypt and to help reduce the long-term costs of low greenhouse gas emitting energy technologies in accordance with OP7 of the GEF. As a country that is well endowed with solar resources, this project will allow Egypt to develop its comparative advantage and become a leader in the application of solar thermal technologies. The project will further enable Egypt to embark on a path of sustainable development in accordance with its commitments under the 2002 Johannesburg World Summit for Sustainable Development and the United Nation's Climate Change Convention and Kyoto Protocol. In the absence of sustainable energy policies, Egypt faces annual environmental damage costs in the order of US\$1.4 billion, as the 2003 Energy and Environment Review showed. The project falls very well within the Government of Egypt's objectives for power generation which aims to use increased levels of renewable sources and natural gas, and is supported through Egypt's National Environmental Action Plan (NEAP) and the country's CAS. The project will also aid in implementing Egypt's Strategy on the Clean Development Mechanism (CDM), as it is a candidate for a CDM project. Progress towards these objectives would be measured and monitored, *inter alia*, based on the increased amount of electricity produced from renewable resources.

I.A.3. Project Description (From PDS):

The project includes the integration of a solar trough collector field producing a minimum energy output with a natural gas-based power generating unit. The proposed project will be implemented in two phases. The first phase entails the engagement of specialized consultants to prepare the technical specifications, bidding documents, draft contracts, and to advise the Egyptian government during the evaluation of proposals. The following phase involves the construction and operation of a solar/fossil fuel hybrid power station of about 126.7 MW (the power plant size is indicative and the technical specifications mentioned above will confirm optimal plant size) with an expected annual net production of 886 GWh per year. The solar output is estimated at 9.2% of the annual production representing 81.4 GWh per year. It is expected that the solar thermal power plant may be put in service in the beginning of 2008.

The project was originally designed to be an Independent Power Producer whereby a private investor would

finance and build the plant. However, due to global slow-down in IPPs and recent regulations in Egypt which make the market for IPPs even more unattractive, Egypt's New and Renewable Energy Authority (NREA) has decided to offer the plant on the basis of an Engineer Procure Construct (EPC) cum O&M contract (with the same entity) for a period of 5 years. NREA will consequently be the owner of the plant. The O&M contract is put in place to ensure appropriate incentives for the operation of the plant, including the full capacity of the solar field. The O&M contract will also ensure that the operator properly implements and monitors the mitigating measures identified in the Environmental Impact Assessment (EIA).

The timeline until construction would be as follows:

1. Pre-qualification (month 1-8)
2. Preparation of bidding documents (month 1-8)
3. Preparation and submission of offers (month 9-17)
4. Technical and commercial evaluation of offers (month 18-26)
5. Contract negotiation (month 27-31)

I.A.4. Project Location: (Geographic location, information about the key environmental and social characteristics of the area and population likely to be affected, and proximity to any protected areas, or sites or critical natural habitats, or any other culturally or socially sensitive areas.)

The project site is located near Kureimat about 95 kilometers south of Cairo. An initial scoping study on environmental impacts showed that the environmental impact of the project is expected to be minimal as (i) the site is currently unused desert without cultural, social or environmental restraints; (ii) it is close to the existing much larger gas-fired power plant at Kureimat for which major infrastructure (gas supply and electricity evacuation) has already been furnished; (iii) the plant will utilize natural gas; (iv) the site is not close to any protected areas/sites or critical natural habitats; (v) the site is not inhabited, and therefore no issues of resettlement arise. The location of the site is in a desert area. No settlements are located near the future site of the plant. Therefore people's livelihoods are not being adversely affected.

The project's feasibility study carried out by Lahmeyer in 2000, included a mini Environmental Impact Assessment (EIA); however, a full scale EIA is currently being carried out and follows the guidelines for EIA's in OP 4.01. This EIA will include a detailed assessment of air quality, water resources, noise, ecology, hydrology, traffic, land use, visual impact and archaeology. The EIA will also establish a detailed environmental management and monitoring program to be followed by the selected contractor during plant operation. This will be enforced through appropriate contractual clauses, which will be included in the corresponding agreements. In addition, the EIA will establish the legal status of the land (that is the ownership of the land will be fully documented), the area and size required for the project and its current uses. Documentation will include photographs.

B. Check Environmental Classification: B (Partial Assessment)

Comments: The environmental impact of the plant, both at the local and regional/global levels, will be minimal as the plant will utilize solar and natural gas. The use of solar power does not produce any pollutants. The combustion of natural gas leads to the lowest level of CO₂ emissions of any fossil fuel. In addition, the combustion of natural gas does not entail SO₂ emissions, and has significantly lower emissions of NO_x than other fossil fuels. The heat transfer oil used in the system might leak and contaminate the soil. However, appropriate treatment of contaminated soil has been included in the design of the project. No other adverse environmental impacts, including on groundwater, are foreseen. Equally, no resettlement is foreseen and no

adverse social impacts are expected. The project may, on the contrary, impact poverty positively by adding to the power capacity of Egypt. This is needed to ensure continuous access by all, including the poor. The GEF component will ensure that the poor are not adversely affected, as the project will not impact on the current tariff levels in place.

C. Safeguard Policies Triggered (from PDS)

(click on  for a detailed description *or* click on the policy number for a brief description)

Policy	Triggered
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> TBD
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Forestry (OP 4.36, GP 4.36)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Pest Management (OP 4.09)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Cultural Property (OPN 11.03)	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> TBD
Indigenous Peoples (OD 4.20)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Involuntary Resettlement (OP/BP 4.12)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Safety of Dams (OP 4.37, BP 4.37)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> TBD

Section II - Key Safeguard Issues and Their Management

D. Summary of Key Safeguard Issues. Please fill in all relevant questions. If information is not available, describe steps to be taken to obtain necessary data.

II.D.1a. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts.

The site is in a deserted area where no human settlements and economic activities exist. Subsequently OD 4.20 (indigenous people) and OP/BP 4.12 (involuntary resettlement) do not apply.

The EIA will determine whether social safeguard OP 4.11 (cultural property) applies. The Project Appraisal Document (PAD) will reflect whether this safeguard is triggered or not.

II.D.1b. Describe any potential cumulative impacts due to application of more than one safeguard policy or due to multiple project component.

N/A.

II.D.1c Describe any potential long term impacts due to anticipated future activities in the project area.

The construction of the solar thermal power plant may lead to increased economic activity around the site, including through tourism.

II.D.2. In light of 1, describe the proposed treatment of alternatives (if required)

N/A.

II.D.3. Describe arrangement for the borrower to address safeguard issues

Recommendations of the EIA will be fully implemented. In particular detailed environmental management and monitoring programs will be established and followed initially by the contractor and then NREA. Furthermore, the mitigating measures to reduce any adverse impact to the atmosphere will be implemented. The issue of leakage of heat transfer oil will have been addressed through a set of technical measures (specification of ball joints and biological remediation of contaminated soil). The above will be enforced through appropriate contractual clauses, which will be included in the corresponding project contracts with the plant operator.

II.D.4. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Although the site is located in a unused desert area, the closest nearby villages and communities will be consulted to confirm that the site is of no economic use to them and that the project will not negatively affect their livelihood. Government Ministries and relevant agencies, academia, environment non-governmental organizations are being consulted during project preparation Other donors will participate during the development of the project as co-financiers. All of the consultations will be documented before project appraisal.

E. Safeguards Classification (*select in SAP*). Category is determined by the highest impact in any policy. Or on basis of cumulative impacts from multiple safeguards. Whenever an individual safeguard policy is triggered the provisions of that policy apply.

- S1. – Significant, cumulative and/or irreversible impacts; or significant technical and institutional risks in management of one or more safeguard areas
- S2. – One or more safeguard policies are triggered, but effects are limited in their impact and are technically and institutionally manageable
- S3. – No safeguard issues
- SF. – Financial intermediary projects, social development funds, community driven development or similar projects which require a safeguard framework or programmatic approach to address safeguard issues.

F. Disclosure Requirements

<i>Environmental Assessment/Analysis/Management Plan:</i>	<u>Expected</u>	<u>Actual</u>
Date of receipt by the Bank	6/15/2004	
Date of “in-country” disclosure	9/24/2004	
Date of submission to InfoShop	10/29/2004	
Date of distributing the Exec. Summary of the EA to the Executive Directors (<i>For category A projects</i>)		
<i>Resettlement Action Plan/Framework:</i>	<u>Expected</u>	<u>Actual</u>
Date of receipt by the Bank	Not Applicable	Not Applicable
Date of “in-country” disclosure	Not Applicable	Not Applicable
Date of submission to InfoShop	Not Applicable	Not Applicable
<i>Indigenous Peoples Development Plan/Framework:</i>	<u>Expected</u>	<u>Actual</u>
Date of receipt by the Bank	Not Applicable	Not Applicable
Date of “in-country” disclosure	Not Applicable	Not Applicable
Date of submission to InfoShop	Not Applicable	Not Applicable
<i>Pest Management Plan:</i>	<u>Expected</u>	<u>Actual</u>
Date of receipt by the Bank	Not Applicable	Not Applicable
Date of “in-country” disclosure	Not Applicable	Not Applicable
Date of submission to InfoShop	Not Applicable	Not Applicable
<i>Dam Safety Management Plan:</i>	<u>Expected</u>	<u>Actual</u>
Date of receipt by the Bank	Not Applicable	Not Applicable
Date of “in-country” disclosure	Not Applicable	Not Applicable
Date of submission to InfoShop	Not Applicable	Not Applicable

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

Signed and submitted by

	<u>Name</u>	<u>Date</u>
Task Team Leader:	Anna Bjerde	12/16/2003
Project Safeguards Specialists 1:	Hocine Chalal/Person/World Bank	12/31/2004
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Project Safeguards Specialists 3:		

Approved by:

	<u>Name</u>	<u>Date</u>
Regional Safeguards Coordinator:	Sherif Kamel F. Arif	1/5/2004
Sector Manager	Francoise Clottes	12/16/2003