

Action Fiche for EGYPT

1. IDENTIFICATION

Title/Number	200 MW Wind Farm in Gulf of El Zayt Project		
Total cost	EU contribution : EUR 20 million Joint co-financing: i) EU: EUR 20 million (in addition to EUR 10 million from the NIF) ii) KfW: EUR 191.5 million; iii) EIB:EUR 50 million; iv) Government of Egypt: around EUR 68.5 million.		
Aid method / Method of implementation	Project approach – Decentralised management		
DAC code	23030	Sector	Power Generation/ Renewable Sources

2. RATIONALE

2.1. Sector context

The electricity exports sector has experienced high growth rates of around 6.5% per year from 1998 to 2008, while total electricity generation grew to 125,129 GWh in this period. According to the Egyptian government's energy master plan, future demand will be covered by utilising fossil fuel energy resources (around 60%) and renewable energy sources (RES), particularly wind and solar energies. The institutional, legal and regulatory framework will be established to support private involvement in the development of the renewable energy sector.

On 26 April 2007 the Egyptian Supreme Council for Energy announced the national strategy to achieve 20% of the total power generation capacity from renewable energy sources in 2020 (the present share amounts to 12%)., mainly from wind. Accordingly, the targeted accumulated wind power capacity increase should be about 7,200 MW, i.e. about 600 MW/year. In addition, the strategy includes the construction of several concentrating solar power (CSP) plants to contribute to satisfying the local demand for electricity while exporting the surplus.

2.2. Lessons learnt

The main lesson learnt for EU future support to this sector is that further strengthening of the institutional and management aspects of the energy sector is highly desirable. TA should be provided to strengthen the regulatory framework to facilitate the future opening of the market to the private sector.

Furthermore, previous experience shows that it is necessary to continue to attach priority to the policy dialogue on tariffs, as tariffs should in principle allow for full cost coverage of (i) the operation and maintenance costs and (ii) the capital cost of wind farms. Under the current national tariff scheme cost coverage can only be partially achieved.

2.3. Complementary action

This 200 MW Wind Farm in Gulf of El Zayt Project is one of the first projects by the EU to be carried out under the umbrella of the Neighbourhood Investment Facility (NIF). The overall EU grant contribution is EUR 30 million: EUR 10 million from NIF funds was already contracted and the remaining EUR 20 million contribution will be added from the 2010 NIP funds. These funds are blended with loans from European Development Banks (KfW: EUR 191.5 million and EIB: EUR 50 million). The Egyptian government is also contributing broadly EUR 68.5 million. A Financing Agreement between Egypt and the EU was signed in December 2008 covering the NIF contribution.

The EU is also financing the Regional Euro Mediterranean Energy Market Integration Programme (MED-EMIP – 2008-2011) with a budget of EUR 4.3 million. Another regional programme, the Euro Med Energy Efficiency Programme in the Construction Sector II (MED-ENEC II) will start in 2010 (EUR 5 million). Other bilateral projects in the pipeline include the technical assistance for the capacity building of the Egyptian Electricity Regulator (around EUR 1 million) and the master plan for the Egyptian New and Renewable Energy Sector (EUR 3 million from the NIF) to be carried out by KfW. A power transmission project is also being developed with an expected NIF contribution of EUR 20 million.

Danida's Zaafarana Windmill Park II project started in 1994 and was completed in 2008. In the framework of this project, 60 MW capacity has been installed. Another project, the Zaafarana windmill park III, was signed in February 2007 with a total amount of EUR123 million for an additional 120 MW windmill park.

JICA's Zaafarana Wind Power Plant Project (2003 – 2012) is expected to add 120 MW to the Egyptian capacity. JICA is also funding the Kuraymat integrated 150 MW Solar Combined Cycle Power Plant Project (2006 – 2015) and the Kuraymat 150 MW Integrated Solar Combined Project II (208-2018).

A GEF/World Bank fund was made available to support the New and Renewable Energy Authority (NREA) of Egypt in the establishment of the solar part (20MW) of a solar thermal power plant (140 MW) in Kuraimat (2008 – 2011).

KfW is providing EUR 150 million for the construction of 160 MW Wind Park in Zaafarana.

2.4. Donor coordination

The Wind Farm (Gulf of El Zayt) project itself is a model for donor coordination as it is developed via a joint financing scheme between the Egyptian Government, the European Commission, the EIB and KfW in line with the Paris Declaration on aid effectiveness. Cooperation between different donors in Egypt has been close and effective in recent years through the Energy and Environment Donors Partner Group.

3. DESCRIPTION

3.1. Objectives

The general objective of this initiative is to improve access to electricity for the Egyptian population and to contribute to global environmental protection by producing environmentally sound electrical energy and avoiding the generation of CO₂ and other emissions at a reasonable economic cost.

The specific objective is to construct a wind farm of up to 200 MW on the West bank of the Gulf of Suez. The envisaged project measures comprise all activities required for the construction/operation of the facilities, including ground surveys, the provision of materials and equipment and the implementation of construction measures, electrical installation and connection to the high voltage power grid.

3.2. Expected results and main activities

The main activities of the project are studies, design, construction, commissioning and operation of a large-size (up to 200 MW) onshore wind farm. Furthermore, the project includes gravel roads between the turbine rows, internal cabling, a ring main or transformer package stations next to the wind turbines and a remote control unit. Finally, a substation including a service centre and interconnection to a main high voltage overhead transmission line will be constructed.

Expected results are the production of environmentally sound electrical energy (200 MW) without CO₂ and other emissions at a reasonable economic cost.

3.3. Risks and assumptions

It is assumed that the mitigation measures and monitoring recommendations of the ornithological expert opinion as part of the feasibility study are followed by the New and Renewable Energy Authority (NREA) and will be considered as a reference for all wind farm projects in the area.

Furthermore, it is expected that the beneficiary accepts to implement the interconnection at the wind farm and the associated substation with due consideration for the guidelines on "Protecting Birds from Power Lines" as issued by the European Commission.

Challenges relate to the complex nature of the project, in particular its timely implementation. There is a risk of coordination problems of the activities between the Egyptian Electricity Transmission Company (EETC) and NREA, although similar projects were already implemented in the past.

Finally, the delivery of wind turbines could be delayed for months as is the case in several projects worldwide. High demand coupled with engineering challenges has created a shortage.

3.4. Crosscutting Issues

The project helps to meet energy challenges related to Egypt's economic development, while supporting environmental objectives by avoiding the production of CO₂ and other emissions.

3.5. Stakeholders

The executing agency for the wind farm project is the New and Renewable Energy Authority (NREA) which operates similar wind farms in the Red Sea area and has extensive technical capacities in tendering and contracting similar projects funded by other donors such as DANIDA, KfW and JICA.

The Egyptian Electricity Holding Company (EEHC, a 100% state-owned company operating under the control of the Ministry of Electricity and Energy) and EETC (a public company part of EEHC (working under the supervision of the Ministry of Electricity and Energy) are also involved in the implementation of this project.

4. IMPLEMENTATION ISSUES

4.1. Method of implementation

Decentralised management will be applicable through the signature of a Rider to the existing Wind Farm Financing Agreement ENPI/2007/019548-EG02, for which financing is provided under an earlier NIF contribution.

The contracting authority is the Egyptian partner the New and Renewable Energy Authority (NREA) following the procedures set out in 4.2 below.. NREA is a public body established by Presidential Decree under the authority of the Ministry of Electricity and Energy. Payment requests are executed by the beneficiary country through the New and Renewable Energy Authority (NREA) following a non-objection (an ex-ante verification) given by KfW. A complementary assessment was made by AIDCO in 2009 to specifically verify KfW procedures in case of project management with actions delegated to implementing partner organisations. Verification tasks (ex-ante and ex-post control) will be delegated to KfW, the lead donor in this Wind Farm project. Delegation of tasks will be formalised through the signature of an implementation agreement signed between the Commission and KfW. KfW will control ex-ante and ex-post all the procurement procedures.

KfW has successfully undergone the compliance assessment for the respect of the requirements of Article 56 of the financial regulation as well as an assessment of its capacity to undertake verification of EC procedures.

Moreover, an additional assessment on how implementing partners execute activities funded by KfW, has proven to give reasonable assurance that the requirements of the FR are respected by the implementing partners, with the exception of grant award procedures, which in any case are not relevant in the context of this project.

4.2. Procurement procedures

All contracts implementing the financing agreement must be awarded and implemented in accordance with the procedures and standard documents laid down and published by KfW for the implementation of external operations, in force at the time of the launch of the procedure in question. They can be adapted if required by KfW's internal rules as long as the modifications conform to internationally accepted standards, and will be detailed in a specific Manual of Procedures. Tender documents related to the project have to be submitted by the NREA to KfW for review and non-objection before tendering. The release of the tender documents to bidders requires a written non-objection of KfW.

Consultancy services for preparation, implementation and commissioning to be fully financed by KfW will be concluded in accordance with KfW's procurement procedures. For project components fully financed from the Egyptian contribution, the Egyptian laws and regulations will apply.

The supplies and services to be financed will be packaged into appropriate turn-key lots and put to international public tender.

4.3. Budget and calendar

The total cost for the operation is estimated at EUR 340 million and includes (i) estimated budgetary funding from the Government of Egypt in the equivalent of EUR 68.5 million and (ii) external financing under a European financing package with contributions from the German Government (via KfW, EUR 191.5 million), the EIB (EUR 50 million) and the EU (EUR 20 million from NIP and EUR 10 million from NIF).

The total project cost estimate comprises the following components

Deliveries & Services	Foreign Cost	Local Cost		Total Cost
	EUR	EGP		
	EP's Portion	NREA	EETC	EUR
Consultancy	6.5	0		6.5
WTG incl. foundations	219	0		219
Other civil works		80		10
Electrical Balance of Plant	0	276		34.5
Substation & Transmission Line	11	0	32	15
Monitoring, external evaluation and audit	0.25			0.25
Contingencies **)	34.75	160		54.75
Total	271.5	516	32	340

Contributions from the different European funding institutions are considered as one joint single financing package which may not be separated or divided. Therefore, the different loans and grants are linked in the respective loan and financing agreements through a clause of cross-effectiveness / cross-default. Consultancy services will be fully paid by the KfW. Land is provided by the Government of Egypt and is not included in the project budget. Some project components will be paid in full from the Egyptian contribution (especially contracts in Egyptian Pounds) or in full from the European Funding Institutions' contribution.

The indicative execution period of the project will be 100 months comprising an operational implementation phase that starts from the entry into force of the financing agreement and will have an indicative duration of 70 months and an indicative closure phase of 30 months that starts from the expiry date of the operational implementation phase.

4.4. Performance monitoring

Performance indicators of each operation will include an estimation of the economic and financial value of investments as well as an indication of the socio-economic and environmental impact achieved through these operations.

With the assistance of the technical consultant provided by KfW, an overall annual work plan for the implementation of the 200 MW Wind Farm in Gulf of El Zayt Project will be produced. Day-to-day technical and financial monitoring will be a continuous process as part of the NREA's and EETC's responsibilities. For that purpose NREA shall establish a permanent internal, technical and financial monitoring system, which will be also used to elaborate the progress reports (monthly, quarterly, annual) according to KfW's requirements.

4.5. Monitoring, evaluation and audit

The functioning of the NIF will be subject to an independent evaluation contracted by the European Commission, in line with the mid-term review of the EU's external activities.

Monitoring, evaluation and audit tasks will be under the responsibility of KfW and will be organised according to the requirements of the project. Audits will be undertaken externally and in line with international standards.

4.6. Communication and visibility

The European Commission and its implementing partners will abide by the visibility rules for EU Financing. The Ministry of Electricity and Energy shall ensure that the visibility of the European Union's contribution (NIF and NIP) is at least equivalent to that given through media to other donors supporting the implementation of the "Wind Farm" project.

http://ec.europa.eu/europeaid/work/visibility/documents/communication_and_visibility_manual_en.pdf.