ANNEX II: TERMS OF REFERENCE

Technical Assistance to support the reform of the Energy Sector Arab Republic of Egypt

EuropeAid/133292/C/SER/EG

1. BACKGROUND INFORMATION

1.1. Beneficiary country

Arab Republic of Egypt

1.2. Contracting Authority

Delegation of the European Union to Egypt.

1.3. Current State of Affairs in the Energy Sector

1.3.1. Energy policy and strategy

Egypt has a population of 82 million (2008) with an annual growth of population of 1.7 %. Egypt is the largest energy consuming country in North Africa and second in Africa after the Republic of South Africa. Production of primary energy supply in 2009/2010 reached 88.9 Mtoe. Oil and condensate production reached 33.6 Mtoe and natural gas and derivatives production increased to 47.6 Mtoe both ensuring 95% of the country energy needs. The consumption of primary energy demand in 2008 was 70.3 Mtoe. Egyptian crude oil with 48% and natural gas with 47% meet about 95% of the country's overall energy needs. The rest of the energy demand is met by hydropower and wind, which account for 3% of the energy demand, and biomass for 2%.

Primary energy consumption is growing fast. Final energy, electricity consumption, peak load tend to grow as rapidly or more than real economic growth. It is anticipated that energy consumption in 2022 will be double compared to 2008 or even higher.

Egypt has a rapidly expanding economy based on the availability of reliable and low cost electric power to satisfy the socio-economic plans. The rate of growth of electricity demand in Egypt has ranged 6-7 percent per year over the past 10 years and is expected to remain at that percent range over the next 10 years. The total electricity generation is 125,129 GWh (2008). The future demand will be covered by utilising fossil fuel energy resources and renewable energy sources (RES), particularly wind and solar energies.

Responsibilities for national planning and policy formulation for the Egyptian energy sector are split between the Ministry of Petroleum and Mineral Resources (MoP), responsible for the oil and natural gas sectors, and the Ministry of Electricity and Energy, responsible for the electricity sector and development of renewable energy.

The Supreme Energy Council (SEC) under the Prime Minister by mandate is responsible for setting and considering the scheme of implementation, the executive coordination and the periodic review of all energy sector policies. Eleven ministries are members of the SEC.

The Government of Egypt (GOE) has adopted a set of energy strategies as follows:.

1-Strategic Objectives

- Further develop Egypt's Hydrocarbon reserve base and production
- Diversify Egypt's energy mix to include new & renewable energy sources.
- Enhance position as an Energy Hub.
- Re-prioritization of Energy subsidies
- Rationalization of domestic consumption of non-renewable energy sources
- Build on the strategic position of Nuclear energy as strategic energy source.

2- Energy and development Policies

- Prepare a comprehensive paper on Egypt's Energy demand side map
- Ensuring the supply of energy to Support the nation's economic development
- Restructuring of the Energy Sector
- Improve energy efficiency and promote energy conservation programs
- Increase the local component share of Energy projects.
- Re iterate our responsibility to international commitments
- Promote and enforce the environmentally sound supply and consumption of energy

During the last decade, the strategy was implemented with significant achievements: increase of proven gas reserves, signing of more than 80 concession agreements with oil and gas companies, development of infrastructure for domestic demand and exports and development of utilisation of renewable energy resources with wind power generation. The Egyptian electricity sector is going through substantial change and is evolving rapidly with the government seeking alternatives and more efficient means to meet demand and secure energy. The high reliance on increasingly scarce crude oil and valuable natural gas has become a concern, as a dynamic population and economic development are driving up consumption. Sector reforms are starting to yield results, laying the ground for market liberalization and enhanced participation of the private sector.

In 2007, the Government of Egypt set the objectives to reach 20% of its electricity produced from renewable energy (amongst 8% is from hydropower), to cut by 20% its green house gas emissions and to reduce by 20% its energy intensity. The targeted accumulating wind power capacity is about 7,200 MW, i.e. about 600 MW/year.

On the regional level, the Egyptian power sector is very interested to play an active role in both Arab and Mediterranean regions. Currently, Egypt is considered the nodal point in the interconnection via Mashreq (via Jordan, Syria, Lebanon and Iraq and Turkey later on) and Maghreb (via Libya and Tunisia later on, to be connected with Algeria and Morocco to Spain). In addition, studies are being conducted to interconnect Egypt with Nile Basin countries (via Sudan and Ethiopia as a first stage) and with Gulf area (via Saudi Arabia).

1.3.2. Oil and gas sector

Egypt has still more than 4.5 billion barrels of proved oil reserves, corresponding to 18 times the annual production of crude oil.. Reaching the production heights of 0.92 Mbbl/d in 1995, Egypt has witnessed a fall in production for 10 years until measures were adopted, Stabilizing crude oil production rates, despite the natural gradual decline and successfully increasing reserve base of oil and condensates to 4.5 BBoe in 09/10 than the low of 3.1 BBoe in 02/03. With a consumption of 674,000 bbl/d in 2009/2010, production was sufficient to prevent Egypt from becoming a net importer of oil. Egypt will be able to maintain this level for a few more years before production decreases. With the foreseen increase in domestic consumption, it is likely that Egypt becomes a net importer in the medium term.

In June 2011, Egypt had proven gas reserves of approximately 77.5 TCF. The natural gas production is increasing, reaching 61.3 bcm in 2011/2012 and is expected to rise further. The reserves are sufficient to expand gas production for a while and Egypt will remain a net gas exporter. However, the expansion profile has repercussions on remaining reserves. Between 2025 and 2035, current reserves will start to require production restrictions. According to the Energy Strategy to 2030 study, under the most likely gas supply scenario, supply would fail to meet the demand in 2020 and the deficit should remain and even expand afterwards.

Domestic natural gas consumption in 2011/2012 was close to 52 bcm, leaving an amount of over 9.3 bcm for exports. Exports through the Arab Gas Pipeline have commenced in 2003 to Jordan and later to Syria and Lebanon with an interconnection to Turkey (in construction) for connecting to the European grid. Gas exports to Israel have started in 2008. Very significant liquefied natural gas (LNG) exports have started from LNG ports.

Under the Ministry's umbrella, the petroleum sector now consists of five entities cooperating to make the best use of petroleum and mineral resources wealth. They are: the Egyptian General Petroleum Corporation (EGPC), the Egyptian Natural Gas Holding Company (EGAS), the Egyptian Petrochemicals Holding Company (ECHEM), Ganoub El-Wadi Petroleum Holding Company (GANOPE) and the Egyptian Mineral Resources Authority (EMRA).

The Egyptian General Petroleum Corporation (EGPC) established in 1962 is considered the first economic corporation established in the petroleum industry in Egypt. It is active in the upstream, downstream and petrochemical sectors, has full responsibility for all sectors of the Egyptian petroleum industry and holds the sole right to import and export crude oil and other petroleum products. As a controller of the industry, any foreign investments in Egypt are maintained through a joint venture with the EGPC and are supervised by the government. Among the major activities of the EGPC are petroleum agreements, exploration, production, transportation and refining.

The gas industry is dominated by EGAS, which participates in upstream joint ventures and in export schemes and is the single buyer and seller of gas in the Egyptian domestic market. The upstream sector is open to private sector participation through conventional Production Sharing Contract (PSC) arrangements. The Egyptian Natural Gas Company (GASCO), a 100% affiliate of EGAS, is responsible for transportation system operation and planning.

Nine privately-owned and five publicly-owned Local Distribution Companies (LDCs) are responsible for gas distribution services. With a large transport and distribution network, 4.94 million customers in 2011/2012 are supplied with natural gas. The natural gas demand is growing at a significant rate, forecast at approximately 5-6% annually for the coming 10 years.

The Egyptian gas industry functions with relatively little legislation and there is no overall gas law. Given the increased number of players and natural gas customers, the existing and potential new comers in distribution activities, the willingness to move towards downstream gas market liberalization, including third party access to transmission networks or pricing regulation, the Government and the Ministry have started to consider setting up an independent regulator for the gas sector. This new entity would ultimately have the following main objectives:

- Support and stimulate investment along the entire natural gas chain
- Reflect international best practices and EU standards
- Regulates prices and protects consumer rights
- Controls third party access and associated rights
- Support development of gas trade market

1.3.3. Electricity sector

The policy of the Ministry of Electricity and Energy aims primarily at securing sufficient and affordable electricity supply to underpin Egypt's socio-economic development. The public sector utility, Egyptian Electricity Holding Company ("EEHC") owns most of electricity generation, distribution and transmission assets. Its main role is to coordinate,

supervise, monitor and follow-up activities of its affiliated companies: six production companies, nine distribution companies and the Egyptian Electricity Transmission Company (EETC).

At present, EEHC owns 90.7 % of the installed generation capacity in Egypt. Three private independent power producers (IPPs) contribute with 7 % and 2.3 % is generated out of wind farms and small isolated units. EEHC - via its 9 distribution affiliates - provides electricity to 28 million consumers. Nearly 99% of the population of Egypt has access to electricity; the main consumer groups are households (41% of the demand) and industry (32.5%) in 2010/2011.

To date, EETC is the only licensed transmission company for very-high and high voltage transmission. EETC purchases all electricity from the EEHC's regional production companies and sells power to 89 very-high and high voltage users and to the distribution companies (in medium and low voltage), the affiliated ones and 7 private distribution companies which represent less than 1% of the market. EETC also exchanges electricity with the neighbouring countries.

By mid 2011, total installed generation capacity in Egypt had increased to over 27,049 MW, of which 21,514 MW thermal (including 2.048 from the IPPs), 2,800 MW hydro, 550 MW wind and 140 MW solar thermal. About 45 grid-connected thermal power plant modules, which are predominantly based on natural gas, account for 87.2% of total installed capacity. Capacity from renewable energy accounts for 12.8% and includes mainly hydropower from the Aswan high dam, as well as some wind energy (2 %). Gross power produced reached 146,796 GWh in financial year 2010/2011, 81.8% of which was contributed by EEHC-owned thermal power plants, 8.8% by hydropower, 9,2 % by the private sector & IPPs, and 1,1 % by the Zafarana wind farm and Kuraymat Solar Thermal Plant. Peak load demand reached 23,470 MW.

Egypt's very-high and high voltage transmission network comprises 500-400-220-132-66-33 KV lines extending over a total length of 42,000 km with aggregate transformer capacity of over 87,400 MVA. Transmission and distribution losses are reportedly low at around 10%. The Egyptian grid is interconnected with the Mashrek area via 400 KV submarine cables to Jordan, Syria and Lebanon and with Libya via 400 KV lines to be commissioned in 2012. Studies for interconnection with Saudi Arabia are completed procedures for starting implementation are being finalized and the project is expected to in operation in 2015.

Domestic electricity demand and peak loads have been growing rapidly since the mid 1990s at an average of about 7% p.a. The increase in energy demand has been met primarily by increased use of fossil fuels, leading to the high energy and carbon intensity of the economy. Growth has been particularly strong in household loads as a result of the increased use of domestic appliances, in particular air-conditioners, and has been reinforced by the very low electricity tariffs.

The growth rate is expected to remain at 6-8% per year over the next 10 years, which implies an increase of new generation capacity in the order of 2,000 MW per year to keep up with demand. The Government's power generation expansion plan is primarily based on natural gas-fired combined and steam-cycle technology and 60% of the domestic natural gas production is utilized by the power sector. The 2012-2017 expansion plan foresees the construction of 11 new thermal power plants to expand the installed capacity from 27,000 to 48,000 MW. EETC has identified 18 priority projects (sub-stations and 200 and 500 KV lines).

he creation of an adequate legal and regulatory framework for the electricity sector is a ey priority. The Electric Utility and Consumer Protection Regulatory Agency (EgyptERA) was established in 2001 based on a Presidential Decree with the following mandate:

- Regulate, supervise, and control all matters related to the electric power activities, whether in generation, transmission, distribution or final consumption,
- Ensure availability of supply to users at the most equitable prices,
- Ensure all activities are carried out in compliance with the laws and regulations, especially those relating to environmental protection,
- Considers and protects interests of customers, producers, transmitters and distributor.

Electricity sector reform is ongoing and a new Electricity Law drafted by the GoE still has to be submitted to the Parliament. The new electricity law is expected to pave the way for significant changes in how the sector is financed and electricity supplied to consumers, including a much greater emphasis on development of renewable resources.

The aim of the Ministry of Electricity and Energy is to create a liberalized electricity market in Egypt, and to develop the Transmission System Operator (TSO) and the Market Operator (MO) in accordance with national as well as EU standards and regulations, as a preparation for the Egyptian electricity market's integration into the international energy market.

The electricity utilities aim at reducing peak demand, which is the most cost effective way to alleviate the pressure on their financial health under the present tariff conditions. Demand side management (DSM) has been difficult to introduce in the Egyptian electric sector since this concept was considered against their basic and single duty to provide electricity. Research on customer demand patterns, and actions on improvement of power factor, pilot projects on efficient lighting, load shifting or time-of-use (ToU) meters have been executed, as a component of a Global Environment Facility / United Nations Development Programme (GEF/UNDP) project. In March 2009, a Decree by the Supreme Energy Council on efficient lighting was promulgated with many ministries on board (commerce and industry, housing, local development, energy). The Energy Efficiency Committee (EEC) programme has started in 2009 in the residential sector with the installation of 6.2 million CFLs, and reached 11, 4 lamps in 2011 installed through a leasing scheme with the participation of distribution companies. Specific actions have already been undertaken in public buildings through efficient lighting and installation of capacitor banks. Next phases will tackle a larger number of public buildings and street lighting through partnerships with municipalities.

1.3.4. Energy efficiency

The issue of energy efficiency is gaining importance in Egypt, in particular in some of the energy consuming sectors' ministries, i.e., industry, transport, housing and local government A general political statement aims to achieve 20% energy savings in 2020 although some more realistic targets of 8% savings have been mentioned by some stakeholders. The new Electricity Law includes some provisions dealing with energy efficiency such as all consumers with contracted capacity above 500 kW will have to nominate an energy manager and electricity appliance and equipment shall be labelled.

The energy efficiency unit attached to the SEC is mandated to coordinate all energy efficiency activities of the various "energy consuming" ministries/sectors and in particular the 12 ministries members of the Energy Efficiency Committee. The Energy Efficiency Unit created by the Prime Ministerial decree N 1453 in March 2005

Ministries have undertaken activities in their respective sector to improve energy management and environment. The Ministry of Electricity and Energy is acting through the programme implemented by the EEHC. The Ministry of Petroleum and Mineral Resources has also developed an energy savings plan for its industry. Three units or groups are established in the industrial sectors: the Egyptian Energy Saving Council for Industry (EESCI), the energy efficiency unit attached to the Industrial Modernisation Centre (IMC) and a team linked to the Industrial Development Authority. Support from KfW and UNIDO should be provided soon to reinforce capacity (training of auditors), develop pilot projects with availability of incentives and identify energy savings measures in industries through an audit programme. The African Development Bank (AfDB) is also to start a technical assistance programme with some energy intensive industries. The Ministry of Housing has developed a building code in the construction sector with technical expertise of its affiliated Housing and Building Research Centre (HBRC). An Energy Unit has been established at the Egyptian Environmental Affairs Agency under the Ministry of State for Environmental Affairs.

In the transport sector, a general taxi loan scheme (not focused on gas driven taxis) has been set-up under the guidance of the Ministry of Finance (MoF), aiming at the replacement of old cars in Greater Cairo. This programme has been very successful and led to the replacement of the majority of more-than-15-year-old taxis in Cairo. During the last 20 years, projects have been implemented to increase the number of compressed natural gas (CNG) filling stations and convert vehicle fleets to natural gas.

A non-binding guideline for green buildings has been prepared in 1999. Since 2003, the competent authorities have established a comprehensive "Energy Efficiency Residential Building Code, for New Residential Buildings, Additions and Retrofits". This code for housing was enacted by Ministerial Decree in 2005, but not yet effectively enforced. A commercial building code is equally prepared as well as a code for public buildings. The new Housing Law of 2007, which creates new implementing structures for building regulations, has not yet led to higher enforcement of the codes. The newly established Egyptian Green Building Council (EGBC) could also play in important role with its specific ratings and concern for enforcement of existing regulations.

Appliance labelling has been introduced on a voluntary basis since the 90's, and testing laboratories of the New and Renewable Energy Authority (NREA) are operating for a number of white household appliances including air conditioners, electric water heaters, washing machines and refrigerators.

Energy efficient equipment supply is still in an early stage in Egypt. Similarly, specific service providers for Energy Efficiency (EE), Demand Side Management (DSM) and Renewable Energy (e.g. through ESCOs) have only started to develop.

Obviously, the market will remain small as long as fossil fuel and electricity prices will be comparatively low and framework conditions will not enable third parties to deal with energy and feed-in of surplus energy into the electricity grid.

In July 2012, the 2012 – 2015 National Energy Efficiency Action Plan (NEEAP) was approved by the cabinet to reach Energy Efficiency Improvement up to 5 % based on the last five years namely in the residential, government and tourism sectors. The NEEAP has been prepared following the guidelines framework for Energy Efficiency Improvement issued by the League of Arab States which is based on the EU directive EC/32/600.

1.3.5. Renewable energy

NREA was established in 1986 under the Ministry of Electricity and Energy to act as the national focal point for expanding efforts to introduce and develop renewable energy

technologies in Egypt on a commercial scale. NREA is entrusted to plan and implement renewable energy programmes in coordination with other concerned national and international institutions within the framework of its mandate. NREA is acting as the focal point for all matters related to renewable energy, assuming the role of a promotion agency, a research centre, a developer and operator of energy systems. This situation is at odds with Government's policy to promote private partners participation in the development of RE projects.

Diversification of Egypt's energy mix is expected to be ensured through an increased utilisation of new & renewable energy sources. In February 2008, the Supreme Council for Energy approved an overall renewable energy strategy to meet 20% of electricity generation from renewable energy resources by 2020. Renewable energy provided between 4 and 6% of the Egyptian energy consumption in the last years, depending on the water availability in the Aswan Lake.

Egypt has some of the best wind resources in the world along the Gulf of Suez and also in desert areas at the west and east of the Nile. The current approach for developing wind resources relies largely on donor-financed public projects implemented by NREA and a total of 550 MW of wind power plants are already in operation. The 20% renewable energy target is expected to be met largely by scaling-up wind energy, including 7,200 MW additional renewable energy power generation. 2/3 of the target are expected to be achieved by the private sector

Egypt has abundant solar power potential, sufficient in theory to produce several times the current power generation. However, unlike wind power technologies, concentrating solar thermal power (CSP) technology is not fully mature and the cost of electricity produced is still higher than fossil fuel power by a factor of 4 or 5. A first solar power facility (up to 20 MW as CSP) has been recently commissioned, integrated with a 140 MW combined cycle gas power plant in Kureimat, south of Cairo. In July 2012, the Cabinet the Egyptian Solar Plan which targets the installation of 3500 MW (2800 ME CSP + 700 MW PV) by 2027 with private investment share of 66% including the expansion of relevant local industries. In this framework, a 100 MW CSP project and a 40 MW PV project will be developed in the next 5 years.

One third of the additional renewable energy power generation (approximately 2,000 MW) should be developed by NREA financed mainly through donors and concessional loans, while the rest will be implemented by IPPs through BOO agreements. In a later phase, a feed-in tariff should be announced to facilitate private sector participation in small and medium wind energy development.

Currently, there is no renewable energy law in Egypt. The electricity law, whose adoption is still pending, foresees a new funding mechanism to support the wind commercialization programme. However, several incentives have been adopted to encourage private investments in the sector. For instance it was decided by the Government to avail land free of charge for private companies willing to invest in RE. Private companies will only pay the costs of land preparation after the operation of the project. They will guarantee recovery of their investments and earning profits through long term 20 – 25 power purchase agreements that will include reasonable tariffs determined in the framework of a competitive bidding procedures, the successful bidder being the one offering the lowest tariff. All imported Renewable Energy equipment exempted from taxes.

1.4. Related programmes and other donor activities

Egypt hosts many and complementary EU-funded initiatives in the energy sector, in particular:

The second phase of the MED-ENEC project (on energy efficiency in the construction sector) which was launched in early 2010 focuses on policy dialogue, business development and finance aspects for buildings, as a continuation of the first phase 1 which addressed more transfers of know-how and policy-development activities and was supported by execution of ten highly successful pilot projects that included energy-efficient design and use of solar energy in buildings (e.g. solar cooling). The project collaborates with the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE). This Centre, based in Cairo, brings together ten countries, including the nine ENPI-South Arab countries including Libya, plus Yemen. It aims to promote renewable energies and energy efficiency in the MENA region.

The "Paving the way for the Mediterranean Solar Plan" project has recently started its activities. Its objectives are to improve the conditions conducive to greater use of renewable energy in general and solar energy in particular, across all the ENPI South Mediterranean partner countries.

The EU in partnership with Kredit Anstalt für Wiederaufbau (KfW) is supporting the preparation of the Egyptian RE Master Plan, which will provide key information on where potentials are and where priorities should be put. The same technical assistance also aims to strengthen the capacity of NREA through a twinning agreement with a European institution.

In the framework of the Mediterranean Renewable Energy Programme (MEDREP), The United Nations Environment Programme (UNEP) has introduced with NREA an Energy Saving Program focusing on the tourism sector (EGYSOL), which would implement a financing mechanism that is intended to help local financial institutions build loan portfolios in the Renewable Energy (RE) area.

In line with the above-mentioned regional programmes, many bilateral EU-funded initiatives in each of the MPCs are relevant in this context and will be taken into account during this project. In particular, the project will search collaboration with the Egyptian-German High Level Joint Committee for cooperation on renewable energy and energy efficiency and environmental protection (JCEE).

The matrix of donors' activities in the Egyptian Energy Sector is attached to the ToR.

2. OBJECTIVE, PURPOSE & EXPECTED RESULTS

2.1. Overall objectives

The overall objective of the project is to contribute to the improvement of the energy policy and regulatory framework and to the promotion of energy efficiency in Egypt and mitigation of Green House Gases (GHG) emissions.

2.2. Purpose

The purpose of the technical assistance contract is to support reform of the Egyptian Energy Sector.

2.3. Results to be achieved by the Consultant

The TA contract is expected to achieve the following results:

1. The existing study on 'Egypt Energy Strategy to 2030' is updated and its strategic directions are revised to reflect Egypt's current energy policy;
2. The mid-term (5 years) action plan (White Book) is prepared;

3. A follow up monitoring system is developed and made available;

4. A proposal for the regulation of the gas sector is developed;

5. The regulation for incentivising the installation of solar water heaters in new buildings is prepared;

6. Energy efficiency management at the consuming sectors level is enhanced in 2 sectors;

7. A road map for energy efficiency management is prepared;

8. A performance monitoring on energy utilisation is consuming sectors is in place and first reports are prepared at both sector level and central level;

9. Effective public and street lighting management approaches are proposed;

10. Provision of feedback and reporting on the implementation of the Energy SPSP;

11. Development of web portals for the Ministry if Electricity and Energy and the Ministry of Petroleum and Mineral Resources.

3. ASSUMPTIONS & RISKS

3.1. Assumptions underlying the project intervention

- The government is committed to adopt its updated Energy Strategy with the medium-term action plans derived from the strategy.

- The Ministry of Petroleum and Mineral Resources and the Ministry of Electricity and Energy are committed to collaborate in the preparation of the medium term action plan

- The government is committed to pursue the gradual liberalisation of the energy market

- The government continues to rely on the Cabinet's Energy Efficiency Unit attached to the Supreme Energy Council for the promotion of energy efficiency policies and coordination of activities at the consuming sectors level

- The energy consuming sectors agree to participate in the energy efficiency programme and implement/strengthen their internal organisation in that respect

3.2. Risks

- Slow progress of energy reforms. However, the current government is determined to pursue the reforms undertaken in previous years.

- Resumption of the annual energy tariffs increase is delayed. Nonetheless, an increase in energy tariffs for high voltage and extra high voltage was decided at the beginning of 2012.

4. SCOPE OF THE WORK

4.1. General

These TORs are for a contract to support the beneficiary in the reform of the Egyptian Energy Sector

4.1.1 Project Description

This technical assistance is part of the EU funded Energy Sector Policy Support Programme. The Energy Sector Policy Support Programme aims to: (i) Improve the energy policy and regulatory framework; (ii) Improve the energy sector financial transparency and performance; (iii) Promote development of renewable energy sources; and (iv) Promote energy efficiency. These objectives are in line with the Energy Strategy 2030 endorsed by the Supreme Energy Council in February 2010, as well as the EU-Egypt MoU for Energy Strategic Partnership signed in 2008.

4.1.2 Geographical area to be covered

The energy sector policy support programme aims at reforming the Egyptian energy sector nationwide

4.1.3 Target Groups

The key target groups include the Ministry of Petroleum, the Ministry of Electricity & Energy, the electricity regulator EgyptERA, the Secretariat of the Supreme Energy Council ('Energy Efficiency Unit'), the New and Renewable Energy Authority (NREA) and the Egyptian Electricity Holding Company (EEHC). Moreover, other beneficiaries include Non Governmental Organizations, Consumers and the Private Sector.

4.2. Specific activities

A) Inception phase

During the inception phase, the project team is expected to review all objectives set for the project with the country partners and, based on this review, draw the project plan in line with international project management standards and/or project management good practices, as agreed with the EU Delegation project manager. The inception report shall include a section detailing project planning for the implementation phase, and fine-tune project activities, include the schedule based on discussion with the stakeholders. The inception phase should include a kick-off meeting that is to be planned with all country's partners in close collaboration with the EU Delegation.

B) Implementation phase

The project has four main components:

Component A: Assist in reviewing and updating of the 'Egypt Energy Strategy to 2030' report and support the development of a Medium term action plan

Component B: Support to reforming the gas sector regulation

Component C: Support to strengthen national energy efficiency implementation activities in key energy consuming sectors through capacity building

Component D: Other supports to facilitate the reform of the Egyptian Energy Sector.

Component A: Assist in reviewing and updating of the 'Egypt Energy Strategy to 2030' report and support the development of a Medium term action plan

One of the priorities of the Memorandum of Understanding on Strategic Partnership between the EU and Egypt signed in 2008 is that both sides resolve to give priority to the development of a comprehensive energy strategy. This will encompass

- developing a "Green Book" on Egypt's sound policy options covering, inter alia, the issues of energy demand, the energy mix, energy infrastructures, energy efficiency and possible energy sector reforms;
- following consultations with the stakeholders, developing a comprehensive energy strategy for the period 2013-2030. This strategy will include all types of energy as well as institutional capacity building and market reform measures;
- cooperating in the definition and preparation of an action plan in the form of a "White Book" outlining concrete measures for the implementation of the strategy;
- cooperating in the effective follow up mechanism for the implementation of the action plan.

The first step has already been accomplished with the preparation of an "Egypt Energy Strategy to 2030" study, endorsed by the Government in February 2010, aiming to achieve five main objectives:

- Ensuring long-term security of energy supply for Egypt;
- Optimizing the use of country's energy resources to ensure sustainable economic development;
- Increasing the efficient utilization of energy in the local economy;
- Ensuring social objectives are met, by reconciling the need to ensure energy is affordable and all sections of society have access to basic energy services;
- Promoting and enforcing the environmentally sound supply and consumption of energy.

It proposed a set of key strategic policy directions and recommendations for the development of Egypt's energy sector covering three areas: the institutional framework, energy supply and energy demand.

One of the targets of the Energy SPSP is to update the energy policy framework and prepare a mid-term action plan ("White Book") including a Performance Monitoring System for further submission to the Supreme Energy Council Based on this background the Consultant will:

1. ***Assist in updating the Egypt Energy Strategy to 2030 study.***

The energy strategy study was prepared during the period 2007-2009 and therefore, an update of the data used in its preparation requires update and revision to reflect the current situation as well as the forecasted future of the of the energy sector with its supply resources, demand patterns, and technology development.

2. ***Consult with all stakeholders on the policy options to be eventually considered for the preparation of the medium term action plan***

The medium action plan must be based on clear policy options which will prevail at least during the five years foreseen for its implementation.

3. ***Assist in defining the structure and content of the medium term action plan***

The White Book should address key issues such as transition of energy sectors towards competitive electricity and gas market, energy tariff reform, upgraded regulatory framework for electricity and petroleum sectors (starting with natural gas middle and down streams), coordination between the Secretariat of the Cabinet of Ministers and the line ministries in energy planning, long term security of supply, incentives to attract foreign investments.

4. Assist in preparing the medium term action plan

According to the Memorandum of Understanding (MoU) on strategic energy partnership, signed between the EU and Egypt in December 2008, the EU will provide support to the Government of Egypt in preparing a White Book or a medium term Action Plan on Energy. The medium term action plan will contain clear and well defined measures to be undertaken by the various energy stakeholders. It may include a section with special priority actions to be addressed as a matter of emergency. For instance, the lack of power capacity during peak periods, the need to prioritize use of natural gas, social constraints.

5. Assist in strengthening the performance monitoring system

As mentioned in the MoU on Strategic Partnership on Energy, an effective follow up mechanism should be put in place to monitor the implementation of the medium term action plan. The Consultant will monitor the progress of implementation at different sectors such as the how each stakeholder organizes the follow up of its action plan and the existing reporting system. Based on this review, a comprehensive monitoring system will be proposed in partnership with the country partners. It may include key performance indicators to be determined with the concerned ministries.

The detailed content of this component will be further refined with the Secretariat of the SEC and other stakeholders with the objective to help Egyptian Authorities in preparing the ground for policy decisions and the medium term action plan.

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Component B: Support to reforming the gas sector regulation

Similarly to what has been initiated for the electricity sector, the petroleum sector has embarked in a significant reform of its sector although with different path and priorities, given the strategic importance of oil and gas industry in Egypt. The Egypt Energy Strategy to 2030 study recommended that EGPC and EGAS should focus on developing and securing long-term oil and gas supplies along with private energy companies. Their regulatory roles and responsibilities should be transferred to a new entity. This clear institutional reform is being discussed and somehow endorsed as a draft Law for the creation of a gas regulator has already been presented to the cabinet. The Law is expected to:

- Support and stimulate investment (along the entire supply chain)
- Reflect international best practice and EU standards
- Regulates prices and protects consumer rights
- Controls rights of access to network
- Support development of gas trade market

The Consultant will provide assistance in three main areas:

- Market preparation and regulation review
- Preparatory work for a gas regulator

- Transitional market plan

Market preparation and regulation review

The areas to be covered by the technical assistance may include:

- Analysis of the macro-environment prevailing when the project starts;
- Review and analyse the current existing regulatory framework and propose a general organisation of the gas sector regulation in Egypt;
- Review the draft law for gas sector regulation and establishment of a gas regulator and assess it against best practices, in particular relevant examples in the EU. This may be supported by a study tour in Europe to visit European regulators in partnership with the European association of regulators;
- Propose development and possibly amendments to the existing draft law duly justified with possible impact on the existing legal framework;
- Contribute in the preparation the draft bylaws;
- Review existing market rules and propose recommendations to evolve towards a more liberalised gas market.
- Develop a transitional market plan;
- Review the various steps foreseen for the gas regulator including the transitional period when it will be still under umbrella of the Government, then an entity where Government intervention will be limited and eventually a fully independent organisation when the market allows;
- Execute a gap analysis for all issues to be under responsibility of the future agency such as licensees, exploration permits, codes, etc.;
- Review of the key steps through which EgyptERA has passed since its creation in 2001, main difficulties and constraints encountered by the agency, remaining steps for EgyptERA to be granted all responsibilities and functions of a regulatory agency.

Preparatory work for a gas regulator

The Consultant will prepare:

- A position paper on the option of developing a unified regulator for the electricity and the oil and gas sectors.
- Proposition for the regulatory agency organization. This may include a draft internal Procedures Manual which lays down the rules for the management structure and interactions within the organization. The document should comprise the organizational structure, all functional descriptions, as well as all internal procedures (e.g. recruitment and selection, training, performance management).
- Propose the regulatory agency organization. This may include a draft internal Procedures Manual which lays down the rules for the management structure and

interactions within the organization. The document should comprise the organizational structure, all functional descriptions, as well as all internal procedures (e.g. recruitment and selection, training, performance management).

- The Agency's internal accounting system.
- The tentative first budget for the Agency
- The Agency strategic business plan. The Agency will be financed by the revenues resulting from its activities and services rendered, the development of a business plan (including sources and types of fees required to cover Agency's budget) is an essential tool for its successful functioning. This will be especially the case after the transitional period, when the Agency is no longer financed by the Government and has to be self-sustainable.

Licences

The consultant will be involved in:

- Reviewing the existing licensing mechanism in place and the specifications applying for the gas sector.
- Preparing and issuing general information and specify input data requirements from licensees. This Consultant will prepare the set of information needed to develop pricing methodologies for price regulation, quality of service regulation and compliance with license conditions. This may be prepared in the form of a set of templates comprising requests for financial, operational and technical data and information that licensees will be required to provide to the gas regulator.
- Defining the communication, workshops and training programmes necessary to educate licensees and operators on the data and information that they will need to collect and provide.
- Preparing a License Code comprising all the general and specific conditions to be met by different licensed activities.
- Preparing the rules to be applied for the existing licensees and for new comers.

Authorisations and permits

The Consultant will contribute in:

- Reviewing Energy Permit Code. This Code should comprise information and data that the applicant is required to produce. As such, the energy permit (authorization) is a simple document and is a precursor to the applicant obtaining a construction permit for developing/constructing energy facilities. The responsibility of issuing gas permit code could lie with the Ministry of Petroleum (MoP) but this responsibility should be transferred to the gas regulator when operational and when the energy permit code has been activated.

Technical/ Operational codes

The Consultant will contribute in:

- Reviewing the Transmission Code. A key part of the market rules is the implementation of a grid code, which sets out the rights and obligations for transmission system users with the aim to define operational standards for transmission systems, facilitate effective development, operation and maintenance of the transmission systems and ensure the users with an equitable access to the transmission system. The Transmission Code should have been developed by the Transmission System Operator (GASCO). The gas regulator's responsibility will be to approve the Code.

- Reviewing the natural gas transportation system operational code

- Reviewing the natural gas distribution system operational code

Tariffs/ connection charges

The Consultant will contribute in

- Developing Tariff systems since a key function of a gas regulator is the development of uniform national tariffs, based on methodologies for use-of-system charges for gas network.

- Developing and approving the methodologies for connection charges. This is the responsibility of a regulator to set out the basic methodologies for charging for connection to the gas systems. The methodologies will be set-out and approved following the discussion of the proposed approach with licensees. Subsequently, the organizations (or licensees) will develop connection charges based on the approach developed by the regulator. These charges or fees will then be reviewed and approved by the Agency.

- Undertaking price reviews. This should be undertaken with the aim to determine a level of allowed revenues for each licensee subject to price regulation consistent with the Government's objectives. In particular, it shall reflect expectations of efficiency improvements that licensees should reasonably be expected to achieve provide adequate revenues to meet likely future operating and investment needs and allow efficient licensees to recover, and earn a fair return on their investments.

Compliance monitoring system

The Consultant will provide guidance on:

- Development of compliance and monitoring system to ensure that the licensees comply with their license obligations (to be part of the License Code). The compliance system will incorporate the Inspection process, as it should be included in the Law, to underpin the monitoring program using the defined powers and duties of the inspectors as well as the use of data and information reports provided by the licensees. This should start with an information dissemination and education campaign to stakeholders. Part of this program will incorporate forums and workshops to licensees setting out their responsibilities.

- Set up a policy and standards for quality regulation. This would be part of the compliance and monitoring system which will capture data and information needed to assess standards of performance and quality. Standards of performance and key performance indicators that will need to be met by the energy networks operators should

be prepared. This should start with a program to inform and educate operators (and other stakeholders) about the development of quality regulation.

Training

A Training program will be prepared and delivered by the Consultant for the staff of EGAS, the Ministry of Petroleum and Mineral Resources other entities to be determined so that the trained participants are equipped them with the full expertise needed for carrying out a gas regulator's operational and managerial duties. Since gas regulatory agency is still not established and then its staff not identified, the training cannot be too specific. However, it is anticipated that the EGAS staff will be more trained on the gas regulator's operational and managerial duties and the Ministry's staff will benefit from a training related to the functions of the Ministry in performing all tasks necessary for empowering the regulator and making it fully operational with respect to its constitutive law and by-laws, organization, management, staffing, procedures, and operations.

The Consultant will:

- Perform a training needs assessment: This is a very important activity, since the appropriate identification of training needs and consecutive delivery of training will be essential for the successful start and operation of the gas regulation function and the regulator. The analysis of the training needs should be undertaken by the Egyptian counterpart and the Consultant.

- Develop a comprehensive training program for the relevant staff: Based on the identified training needs, a comprehensive training program for the appropriate staff will be developed by the consultant together with Ministry and EGAS relevant departments. A particular component of the program will focus on developing the skills and competencies for team-building and team-working among the professional staff who will be members of the cross-functional teams.

- Deliver some components of the training program during the 23 months of the project.

Component C: Technical assistance and support to strengthen energy efficiency implementation activities in key energy consuming sectors and mitigation of GHG emissions

The Energy Sector Policy Support Programme (Energy SPSP) aims at strengthening energy efficiency at the consuming sectors' level and ensuring improved coordination and monitoring between the ministries and the central Energy Efficiency Unit (EEU). Currently, the responsibility for developing energy efficiency strategy and activities is split among concerned ministries under the coordination of the EEU that is attached to the SEC.

The Energy SPSP aims at promoting energy efficiency in consuming sectors by strengthening the central energy efficiency unit and to assist in creating energy efficiency units or teams in the line ministries with the appropriate mandate, agenda and performance targets.

The Supreme Energy Council / Energy Efficiency Unit SEC/EE Unit has embarked on a plan to create decentralised energy efficiency units in key consuming sectors. The key sectors that will be covered under the EE Unit's plan are government buildings and public services, industry, residential and commercial buildings and tourism. At a later stage, the SEC/EE Unit will expand the activities to cover other end use sectors such as transport,

education health and others. The new EE units at each sector will be formed under the legal and organizational jurisdiction of its respective line ministry. .

In parallel, with this institutional set up, the SEC/EE Unit has developed a report on the development of energy efficiency indicators system to be eventually used by the concerned ministries as benchmarks for implementing their sector energy efficiency strategy and by the SEC to measure the results achieved against the initial objectives and to propose corrective measures.

The technical assistance will help promote energy efficiency in Egypt by:

- strengthening the institutional plan set up of decentralised energy efficiency units through the SEC/EE Unit,
- assisting the implementation the sectors programmes including developing the system of benchmarks and indicators, supporting the sectors in the implementation of their programme and providing capacity building for the sectoral EE units.

The SEC/EE Unit and the Consultant's Technical Assistance team will further refine the areas and scope of work based on the actual progress made when the project kicks off. The TA will not cover all sectors likely to be addressed by the Government programme. Only two or three sectors will be selected during the project inception. It is anticipated that the sectors will be the residential and commercial buildings, the tourism, and the Government sectors. The technical assistance provided in this component will address the following issues:

- Pursue the efforts to set up performance benchmarks and indicators in preparation and the targeted sectors addressed by the programme. These indicators will be further used to set up targets for the targeted consuming sectors and be the basis for the performance monitoring system;
- Review the existing information available on energy utilisation in key consuming sectors, the methodology used to acquire data and information on a regular basis, the surveys which have been executed, checking the accuracy and liability of data, identify weaknesses, recommend improvements in terms of regular data collection and processing, identify needs for further surveys;
- Further development on the organisation of decentralised energy efficiency management on the basis of what has been already agreed and implemented in selected sectors and sub-sectors;
- Further recommendations on the sector strategy and work plan to be implemented to address the consumers and achieve the results and objectives set by the SEC/EE Unit;
- Organisation of a capacity building programme which may be horizontal, i.e. adequate for all sector units and specific, i.e. targeting a definite sector. This capacity building may include formal training sessions, workshops and study tours;
- Delivery of some training activities and other capacity building activities;
- Provision of guidelines on energy efficiency investments and measures to be promoted in the various targeted sectors;
- Assistance in sector communication and information programme. This will include a review of the existing communication materials and support and proposal for implementing well targeted

communication programme. This may be undertaken in partnership with existing organisations such as the federations, the chambers of commerce, the professional associations and institutes;

- Establishment of sector monitoring systems and reporting systems. This is an important area since it will allow to clearly follow up the implementation of the sector programmes and how they are developing in accordance with the Government objectives.

- Assistance in measuring performance in some selected sub-sectors (for example, large commercial buildings, tourism industry, textile, street lighting)

Regulation on solar water heating

The development of solar water heating in Egypt has been very limited development although the favourable climate conditions. This is obviously due to the current low energy tariffs which do not encourage residential customers to install such systems in substitution of traditional electric or fuel-based systems but also to the low quality of systems available on the market, poor after sales services, the lack of communication and awareness campaign on the benefits of solar water heating and the lack of financing mechanisms to facilitate the penetration of this technology with for instance the participation of ESCOs and the implementation of an guaranteed performance.

In the framework of MEDREP, UNEP has introduced with NREA an Energy Saving Program focusing on the tourism sector (EGYSOL), which would implement a financing mechanism that is intended to help local financial institutions build loan portfolios in the Renewable Energy (RE) area by covering part of the financial costs of the installations. This programme has not achieved the expected results so far.

The SEC/EE Unit has conducted a review of the local market and available technologies and developed a direction to expand the SWH market. An incentive-based regulation is being considered by the EE Unit to encourage real estate developers to incorporate SWHs as part of their new development in exchange for some benefits. This concept needs further development support.

The Consultant will contribute to the preparation of this regulation though the following tasks:

- Review the existing legal and regulatory framework such as the Ministerial Decree 401 dated 1987 related to use of SWH in buildings, the building code;

- Assess the building construction sector, kind of new buildings built every year and forecast, the water heating systems currently used and the potential market for SWH, market development barriers, the impact of the regulation on energy use;

- Liaise with the relevant organisations likely to be involved such as the Housing and Building Research Centre (HBRC) to determine the way the regulation should be considered, the acceptability by the promoters and builders;

- Review the solar water heater market including manufacturers and dealers, capacity of local manufacturing to meet the demand after adoption of the regulation;

- Design a full fledge program with all the necessary program elements, and support the initial phase of implementation that would overlap with the duration of the technical assistance term;

- Propose the quality system to be set up to accompany the regulation, the existing texting facilities (NREA) and the needed label programme;

- Design a training programme for the main organisations concerned by this new regulation;

- Prepare the draft regulation to be endorsed by all stakeholders before submission to the energy efficiency committee

Energy management and energy efficiency in street lighting

8% of electricity is consumed for municipal street lighting, where significant energy savings potentials exist. By Decree promulgated by the Supreme Energy Council in March 2009, the EEHC is mandated to undertake a large lighting programme in households, public buildings, street lighting and public utilities. This programme mainly includes the replacement of lamps by more energy efficient ones by the distribution companies and the municipalities. During the following two years, it is foreseen to replace approximately 500,000 lamps annually which should lead to savings amounted to 36 GWh during the years 2011-2013.

Besides lamps replacement, areas for improvement include better urban planning and improved design for new installations, improved design of reflectors, electronic ballasts, better management of the lighting systems including transfer of responsibility to private sector through concession and guaranteed performance agreement.

The Consultant will provide technical assistance on the following issues:

- Organisation of the street lighting sub-sector, various organisations involved and responsibility sharing among governorates, municipal authorities, distribution companies and others;

- Review of technologies used in municipal street lighting in Egypt and through the EEHC street lighting modernisation programme;

- Street lighting technical, financial and budgetary management methods;

- Current practices in terms of design, urban planning, stock management;

- Proposal to introduce new street lighting management including delegation of street lighting to private agents through a concession agreement with guaranteed performance in terms of public service quality, public satisfaction, cost reduction and other indicators;

- Support the beneficiary in the preparation of a pilot project with European partners in one or several municipalities.

Component D: Other supports to facilitate implementation of the Energy SPSP

The Consultant will provide specific assistance to ensure a smooth implementation of the Energy SPSP in all its aspects. In addition to the three main components described above, he will follow up the progress in the implementation of the targets set in the financing agreement. He will also provide specific assistance on specific issues related to the Energy SPSP.

Follow up the implementation of the Energy SPSP

The expected results and main activities included in the Energy SPSP are as follows:

(1) Improvement of the energy policy and regulatory framework:

(2) Improvement of the energy sector financial transparency and performance

(3)Promote the development of Renewable Energy sources and mitigation of GHG emissions

(4)Promote Energy Efficiency

The Consultant will assist the Energy SPSP Steering Committee in conducting its regular meetings. This activity will entail preparatory work (agenda, presentations, etc.). For this, the Consultant may also liaise with the other technical assistance team attached to the Ministry of Finance.

The Consultant is also responsible for drafting minutes of any meeting with the European Commission as well as any meeting of the TA Steering Committee and of the Energy SPSP Steering Committee. These draft minutes must be submitted as draft to Commission representatives taking part in the meeting. The EC project manager must always receive such draft minutes, regardless of whether or not he or she was able to participate in the meeting.

There will be two external evaluations of the Energy SPSP to assess whether the conditions for disbursements of the two variable tranches have been met. These missions will take place during the last quarters of 2012 and 2013. The project team will take all the necessary steps to facilitate monitoring visits and/or evaluation exercises, more specifically by making available all the necessary project-related information.

The Consultant will also prepare regular monitoring reports concerning the implementation of the SPSP matrix of conditions for disbursement.

C. Closure phase

The closure phase shall run from the beginning of the second-to-last month of the project. A final meeting should be organised and the first draft or outline of the final report should be submitted at least one month before the project end date of activities. Please also refer to Article 26 of the General Conditions.

4.3. Project management

4.3.1. Responsible body

The Delegation of the European Union to Egypt, represented by the designated Project Manager, will be responsible for supervising the implementation of the project.

4.3.2. Beneficiaries

The beneficiaries and counterparts of the project are the SEC/EE Unit, the Ministry of Petroleum and the Ministry of Electricity and Energy. Other beneficiaries are the energy consuming sectors involved in the decentralised energy efficiency management programme, the municipalities addressed by the street lighting modernisation programme.

4.3.3. Management structure

The Consultant will be responsible for day-to-day management of the project and mobilisation of all experts. Plans for mobilisation of experts will be subject to the project work plan established by the Consultant and approved by the Contracting Authority.

During the inception phase the Consultant will assist in establishing a project Steering Committee to guide the project implementation. The Consultant will report regularly to the Project Steering Committee, which will review project progress and give guidance on key issues. The members of the Steering Committee shall represent all main project stakeholders, i.e.: representatives of the Contracting Authority, the Ministry of Electricity and Energy, the Ministry of Petroleum, the Secretariat of the SEC and the SEC/EE Unit Project Partner, Consultant and other stakeholders involved. The Consultant will agree the exact composition of the Steering Committee with the Project Partners and the Contracting Authority.

The Steering Committee will be chaired by a representative of one of the Project's Partners. The Consultant will ensure the proper functioning of the Steering Committee's meetings, such as preparing agenda, reporting, writing minutes etc.

The day-to-day management of the project is the responsibility of the consultant's Team leader. The Team leader will be responsible for the whole project implementation and coordination.

The Project Partner shall appoint a senior member of its staff to liaise with the Contracting Authority and Consultant and shall ensure that staff of the appropriate level is made available to work alongside the staff of the Consultant.

4.3.4. Facilities to be provided by the Contracting Authority and / or other parties

Office accommodation of a reasonable standard will be made available free of charge by the Electric Utility and Consumer Protection Regulatory Agency (EgyptERA). The Ministry of Electricity and Energy and the Ministry of Petroleum will also made available free of charge office spaces.

5. LOGISTICS AND TIMING

5.1. Location

Cairo, Egypt.

5.2. Commencement date & Period of implementation

The intended commencement date is 22 January 2013 and the period of implementation of the contract will be 23 (twenty three) months from this date. Please refer to Articles 4 and 5 of the Special Conditions for the actual commencement date and period of execution. The Consultant shall include in his proposal a detailed schedule and timetable for the completion of each project task as well as a training program and schedule proposal.

6. REQUIREMENTS

6.1. Personnel

6.1.1. Key experts

All experts who have a crucial role in implementing the contract are referred to as key experts. **Each** key expert will be contracted for the entire period of the project and will be based in Cairo, Egypt.

Key expert 1: Team Leader: Expert in Energy Sector Policy and Strategy (420 working days)

Qualifications and skills

- Master degree in Engineering, or Economics, or other related fields to energy.
- An advanced professional qualification related to energy would be an asset.
- Fluency in written and spoken English
- Knowledge of Arabic would be considered an advantage.

General professional experience

- A minimum of twelve years of professional experience in the energy sector, preferably at least three years dealing with energy sector policy and strategy.
- At least three years experience in managing a team, preferably in an international context.

Specific professional experience

- Proven experience with energy policy, energy sector reform and/or regulatory or legal issues in the energy sector.
- Professional experience in sustainable energy (renewable energy and/or energy efficiency and/or energy savings) would be an asset.

Key expert 2: Expert in Energy Efficiency strategy and programmes (420 working days)

Qualifications and skills

- Master degree in Economics, or other related fields to energy efficiency.
- An advanced professional qualification related to energy would be an asset.
- Fluency in both written and spoken English.
- Knowledge of Arabic would be an asset

General professional experience

- A minimum of ten years of professional experience in energy efficiency strategy and programme.
- Preferably at least three years of professional experience in energy efficiency management in an international context.

Specific professional experience

At least 3 years experience working in an energy management agency

- Proven experience in building capacity of energy efficiency entities
- Proven experience in energy use and energy efficiency indicators in industry, household and commercial sectors, and in transport.

Key expert 3: Expert in gas sector regulation (420 working days)

Qualifications and skills

- Master degree in Engineering, or Economics, or other related fields to energy.
- An advanced professional qualification related to energy would be an asset
- Fluency in written and spoken English.
- Knowledge of Arabic would be an asset.

General professional experience

- A minimum of ten years of professional experience in the gas industry
- Preferably at least three years of experience in technical assistance or advisory assignments, preferably in an international context.
- Experience in working in a gas regulator would be an advantage

Specific professional experience

- At least five years' experience related to gas regulation.
- Knowledge of EU Directives and regulations pertaining to gas
- At least five years expertise in gas market design and market monitoring

Note that civil servants and other staff of the public administration of the beneficiary country cannot be recruited as experts, unless prior written approval has been obtained from the European Commission.

6.1.2. Other experts

CVs for experts other than the key experts are not examined prior to the signature of the contract. They should not have been included in tenders.

Other experts should total **1,550 working-days over the 23 months' duration** of the project.

Expertise of other experts shall include experts with an appropriate level of knowledge of and experience in oil and gas industry, gas market reform and gas sector regulation, gas codes, energy savings in industry, transport, public and commercial buildings, energy efficient street lighting and street lighting management, renewable energies technologies such as solar water heaters, regulation in renewable energies, know-how transfer, capacity building and related matters. Expertise of other experts should be complementary to that of key experts so as to cover the whole scope of the project. Other areas of required expertise are: Oil and Gas Management, Energy and Environmental Technology &Economics, Energy Industry Management, Energy Law and Policy, Energy & Natural Resources regulation and Policy , Petroleum Law & Policy , Oil and Gas Taxation & Finance, Climate Change, Energy Business Law and Transactions, Dispute Resolution in the field of Energy, Energy Economics and Finance, Renewable Energy and

Distributed, Generation Sustainability Engineering, Energy Derivatives Markets, Instruments and Hedging, Energy Strategic Price Risk Management and subsidies.

The Consultant shall select and hire other experts as required according to the profiles identified in the Organisation & Methodology. They must indicate clearly which profile they have so it is clear which fee rate in the budget breakdown will apply. All experts must be independent and free from conflicts of interest in the responsibilities accorded to them.

The selection procedures used by the Consultant to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience. The findings of the selection panel shall be recorded. The selection of experts shall be subject to approval by the Contracting Authority.

Note that civil servants and other staff of the public administration of the beneficiary country cannot be recruited as experts, unless prior written approval has been obtained from the European Commission.

Working days / hours

The days and hours of work of the Consultant in Egypt shall not be more than five paid days per week (Sunday – Thursday) with not less than eight hours per day. Local holidays are not working days.

Indicative cost of employing expert resident in the country

It is expected to reflect the local market fees when the expert is hired on the local market. Indicatively, the fees per working day for a local senior expert in Egypt are EUR 500 and EUR 300 for a junior expert.

6.1.3. Support staff & backstopping

Backstopping and support staff costs must be included in the fee rates of the experts.

6.2. Office accommodation

Office accommodation of a reasonable standard will be made available free of charge by the Electric Utility and Consumer Protection Regulatory Agency (EgyptERA). To facilitate the implementation of some components of the project, the Ministry of Electricity and Energy and the Ministry of Petroleum will also made available free of charge office spaces.

6.3. Facilities to be provided by the Consultant

The Consultant shall ensure that experts are adequately supported and equipped. In particular it shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support its activities under the contract and to ensure that its employees are paid regularly and in a timely fashion.

The Consultant shall provide all equipment, supplies, and support, such as phones, PC, laptops, photocopying machines, and office furniture, as well as any other working tools needed by the experts, using the expert fees in order to cover all related costs.

If the Consultant is a consortium, the arrangements should allow for the maximum flexibility in project implementation. Arrangements offering each consortium member a fixed percentage of the work to be undertaken under the contract should be avoided.

6.4. Equipment

No equipment is to be purchased under this contract on behalf of the Contracting Authority / beneficiary country as part of this service contract or transferred to the Contracting Authority / beneficiary country at the end of this contract.

6.5. Incidental expenditure

The Provision for incidental expenditure covers the ancillary and exceptional eligible expenditure incurred under this contract. It cannot be used for costs which should be covered by the Consultant as part of its fee rates, as defined above. Its use is governed by the provisions in the General Conditions and the notes in Annex V of the contract. It covers:

- Travel costs and subsistence allowances for missions in Egypt and the EU to be undertaken by the experts as part of this Contract from the project's base of operations in the beneficiary country.

- Costs involved in organising training and other events, including the cost of rental of equipped training facilities, meeting rooms, catering, and documentation. Rental of appropriate equipment covers equipment needed for simultaneous interpreting, audio equipment (microphones and loudspeakers), and projection devices (overhead projector and screen). No IT or similar equipment may be purchased to equip training facilities. Catering includes one meal, drinks, and two coffee breaks each day. The provision under incidental expenditures should also include the cost of printing documents for the appropriate number of participants.

- Information and communication costs (web portal development and related training material).

Prior written authorisation of the EU Prorgamme Manager must be obtained for all use of the budget for incidental expenditure.

The Provision for incidental expenditure for this contract is **EUR 250000**. This amount must be included without modification in the Budget breakdown.

Any subsistence allowances to be paid for missions undertaken as part of this contract must not exceed the per diem rates published on the Web site:
http://ec.europa.eu/europeaid/work/procedures/index_en.htm at the start of each mission.

Perdiems are payable only if the expert stays at a hotel

6.6. Expenditure verification

The Provision for expenditure verification relates to the fees of the auditor who has been charged with the expenditure verification of this contract in order to proceed with the payment of further pre-financing instalments if any and/or interim payments if any.

The Provision for expenditure verification for this contract is **EUR 30,000**. This amount must be included without modification in the Budget breakdown.

7. REPORTS

7.1. Reporting requirements

Please refer to Article 26 of the General Conditions. An inception report must be prepared within the first three months of the project..

Interim reports must be prepared every six months during the period of implementation of the tasks. They must be provided along with the corresponding invoice, the financial report and an expenditure verification report defined in Article 28 of the General Conditions.

There must be a final report, a final invoice and the financial report accompanied by an expenditure verification report at the end of the period of implementation of the tasks. The draft final report must be submitted at least one month before the end of the period of implementation of the tasks. Note that these interim and final reports are additional to any required in Section 4.2 of these Terms of Reference.

Each interim and final report shall consist of a narrative section and a financial section. The financial section must contain details of the time inputs of the experts, of the incidental expenditure and of the provision for expenditure verification.

The Consultant shall provide the following reports:

Name of report	Content	Time of submission
Inception Report	Analysis of existing situation and plan of work for the project	No later than 1 month after the start of the implementation
6 month Progress Report	Short description of progress (technical and financial) including problems encountered; planned activities for the ensuing 6 months accompanied by an invoice and the expenditure verification report.	No later than 1 month after the end of each 6 month implementation period
Draft Final Report	Short description of achievements including problems encountered and recommendations	No later than 1 month before the end of the implementation period.
Final Report	Short description of achievements including problems encountered and recommendations; a final invoice and the financial report accompanied by the expenditure verification report.	Within 1 month of receiving comments on the draft final report from the Project Manager identified in the contract.

7.2. Submission & approval of progress reports

The consultant will submit all above-mentioned reports in English and Arabic. The reports referred to above will be submitted in 5 hard copies and electronic format. The Project manager is responsible for approving the reports after consultation with the Beneficiary.

8. MONITORING AND EVALUATION

8.1. Definition of indicators

In order to assess progress, identify difficulties and take rapidly appropriate measures to overcome them, it is essential to design at an early stage of project implementation an information system giving a clear picture of the situation of the activities and of the results achieved at both regional and national levels.

This requires the identification of key information sources and information providers, the selection of relevant quantitative and qualitative indicators, and the development of meaningful information materials, to be utilised and updated regularly (questionnaires, mission reports, minutes of meetings with stakeholders, end of seminar evaluation sheets, etc).

8.2. Special requirements

In addition to the above-mentioned reports, the Consultant and its team of experts shall report regularly, by email, to the EU Delegation's Project Manager. In particular, the Team leader must regularly report on difficulties encountered in the TA execution and on implementation of the Energy SPSP. Monthly brief reports should be used, in agreement with the EU Delegation's Project Manager at the initial briefing meeting.

"Donors' Activities in the Egyptian Energy Sector"

AFD (French Development Agency)	الوكالة الفرنسية للتنمية
Jean-Pierre Marcelli	جون بيير مارسيللي
Director, AFD Cairo Office	مدير مكتب الوكالة الفرنسية للتنمية في القاهرة
AFD is a French public entity aiming at financially supporting development. As a specialized financial institution, AFD supports projects with economic and social objectives, in the public as well as in the private sector: infrastructures and financial systems, urban and rural development, education and health and more broadly public policies. The involvement of AFD in Egypt was materialized in February 2007 with the opening of the Cairo Office, which has accelerated project identification and appraisal and enhanced the dialogue with the Egyptian administration and AFD's potential partners in the public and private sectors. Loans amounting to more than EUR 700 M have been committed since the inception of AFD's activities in	الوكالة الفرنسية للتنمية هي مؤسسة مالية متخصصة مملوكة للحكومة الفرنسية و تدعم المشروعات ذات الأهداف الاجتماعية و الاقتصادية في القطاع العام و الخاص كمشروعات البنية التحتية ، الأنظمة المالية، التنمية الريفية و الحضرية و التعليم و الصحة و السياسات العامة. ووفقا للاتفاق الإطاري للوكالة مع مصر، تم فتح مكتب الوكالة بالقاهرة، الذي بدأ عمله في فبراير2007. مما ساهم في التعجيل بتحديد المشروعات، وإقامتها، وفتح حوار متصل مع الحكومة المصرية، بالإضافة إلى شركاء الوكالة من القطاعين العام والخاص. التزمت الوكالة بقروض قيمتها 700 مليون يورو منذ بداية نشاطها في مصر في مجال المياه، الزراعة، الطاقة، الشركات الصغيرة و المتوسطة و قطاع النقل العام. بقدر ما يخص نشاطات الوكالة الفرنسية

اجتماع "لجنة الصناعة و الطاقة بمجلس الشعب" و" مجموعة شركاء التنمية للطاقة و البيئة"

"Parliamentary Committee on Industry and Energy" meeting with "Development Partner Group on Energy and Environment" (DPGEE)

28.05.2012

DPGEE Group		مجموعة شركاء التنمية للطاقة و البيئة	
Dr. Jens Mackensen	Chairman of DPGEE-Director, KfW Cairo Office	رئيس المجموعة بالقاهرة KfW مدير مكتب	د. ينس ماكينزين
Anne-Sophie Karvella	Co Chair of DPGEE Project Officer, AFD	نائب رئيس المجموعة مسئول مشاريع-الوكالة الفرنسية للتنمية	آن-سوفى كارفيلا
Radwa Abd Elsalam	DPGEE Secretary-Assistant Office Manager, KfW Cairo	سكرتير المجموعة- مساعد مدير مكتب KfW	راضوة عبد السلام

Donor Agency	AFD (French Development Agency)	الوكالة الفرنسية للتنمية
Participant	Jean-Pierre Marcelli	جون بيير مارسيللى
Position	Director, AFD Cairo Office	مدير مكتب الوكالة الفرنسية للتنمية في القاهرة
Introduction (organization/ institution)	AFD is a French public entity aiming at financially supporting development. As a specialized financial institution, AFD supports projects with economic and social objectives, in the public as well as in the private sector: infrastructures and financial systems, urban and rural development, education and health and more broadly public policies. The involvement of AFD in Egypt was materialized in February 2007 with the opening of the Cairo Office, which has accelerated project identification and appraisal and enhanced the dialogue with the Egyptian administration and AFD's potential partners in the public and private sectors. Loans amounting to more than EUR 700 M have been committed since the inception of AFD's activities in	الوكالة الفرنسية للتنمية هي مؤسسة مالية متخصصة مملوكة للحكومة الفرنسية و تدعم المشروعات ذات الأهداف الاجتماعية و الاقتصادية في القطاع العام و الخاص كمشروعات البنية التحتية ، الأنظمة المالية، التنمية الريفية و الحضرية و التعليم و الصحة و السياسات العامة. ووفقا للاتفاق الإطاري للوكالة مع مصر، تم فتح مكتب الوكالة بالقاهرة، الذي بدأ عمله في فبراير2007. مما ساهم في التعجيل بتحديد المشروعات، وإقامتها، وفتح حوار متصل مع الحكومة المصرية، بالإضافة إلى شركاء الوكالة من القطاعين العام والخاص. التزمت الوكالة بقروض قيمتها 700 مليون يورو منذ بداية نشاطها في مصر في مجال المياه، الزراعة، الطاقة، الشركات الصغيرة و المتوسطة و قطاع النقل العام. بقدر ما يخص نشاطات الوكالة الفرنسية

	the water, agriculture, energy, SME and public transport sectors. As far as AFD's activities in the energy sector are concerned, AFD's current commitments are: - Egyptian Power Transmission Project: EUR 50 M loan, together with other partners, to reinforce and extend the national transmission network. Umbrella Agreement involving all European partners and Egyptian Authorities signed in July 2010, - Study regarding Energy Efficiency in Energy intensive Industries in Egypt: grant to finance the study, final beneficiary: Ministry of Trade and Industry. Report being currently finalised. - 20 MW PV plant: 0,8 M EUR feasibility study financed by the NIF. ToR finalised, grant agreement to be signed shortly. Possible investment in 2013/14. AFD could also participate in the following projects, subject to the outcome of appraisal processes and to internal and Board approval. - Gulf of Suez wind farm: EUR 50 M loan, terms and conditions to be defined, - CSP Kom Ombo: EUR 50 M loan, terms and conditions to be defined, AFD would also be ready to consider supports to increase regional interconnections (Middle East, Africa).	للتنمية في قطاع الطاقة، توضح التزاماتها في ما يلي: **- مشروع نقل الطاقة الكهربائية المصرية:** قرض بقيمة 50 مليون يورو بالتعاون مع الشركاء آخرين ، بهدف تعزيز و مد شبكة النقل القومية. و تم توقيع اتفاقية مبسطة تضم الشركاء الأوروبيين و السلطات المصرية في يوليو 2010. **- دراسة تخص كفاءة الطاقة في صناعات الطاقة الثقيلة في مصر:** منحة لتمويل الدراسة، المستفيد هو وزارة التجارة و الصناعة. التقرير يتم الانتهاء منه حاليا. **- زراعة 20 ميجاوات من الطاقة الفوتوفولتية:** 0.8 مليون يورو لتمويل دراسة جدوى من مرفق الجوار للاستثمار. تم الانتهاء من تحديد الاختصاصات و سيتم توقيع الاتفاقية قريبا. الاستثمار متوقع مع الشركاء الأوروبيين في 2014/2013. يمكن أيضا للوكالة الفرنسية للتنمية أن تساهم في المشروعات التالية و التي تخضع لنتائج عمليات التقييم و كذلك للموافقة الداخلية و موافقة المجلس. **- مزرعة رياح خليج السويس:** قرض بقيمة 50 مليون يورو. **- مركز إنتاج الطاقة الشمسية:** قرض بقيمة 50 مليون يورو، سوف يتم تحديد الشروط و الأحكام. كما أن الوكالة على استعداد أن تنظر في الدعم لزيادة الروابط الإقليمية (الشرق الأوسط و إفريقيا).

Donor	**AfDB (African Development Bank)**	البنك الافريقى للتنمية
Participant	Khaled El-Askary	خالد العسكري

Position	Senior Energy Officer	
Info about organization / institution	The African Development Bank (AfDB) has since 1974 financed 18 operations in the energy sector in Egypt, 14 of which are successfully completed. The completed projects include five power generation plants, one transmission project and two rural electrification projects. Currently, the AfDB is supporting four ongoing power projects (Kureimat, Abu Qir, Ain Sokhna & Suez) for a total commitment of about USD 1.3 billion. In addition, the Bank has invested in the Egyptian Refinery Company project aiming at increasing the fuel oil refining capacity in the country to produce high-end products and fuels. The AfDB is also supporting Egypt in realizing its renewable energy plans. In this regard, the AfDB looks forward to supporting wind farms in the Gulf of Suez and the solar project in Kom Ombo using Clean Technology Fund and AfDB financing for a total of about USD 410 million.	قام البنك الإفريقي للتنمية منذ عام 1974 بتمويل 18 مشروع في قطاع الطاقة في مصر، تم الانتهاء من 14 منها بنجاح. المشروعات المنجزة تشمل خمس محطات لتوليد الطاقة الكهربائية، مشروع لنقل الطاقة ومشروعين لكهربة الريف. حاليا يدعم البنك الأفريقي للتنمية أربعة مشاريع لتوليد الطاقة (الكريمات، أبو قير، العين السخنة والسويس) يبلغ إجمالي تمويل البنك لها نحو 1،3 مليار دولار أمريكي. وبالإضافة إلى ذلك، استثمر البنك في مشروع الشركة المصرية للتكرير والذي يهدف إلى زيادة قدرة تكرير النفط في البلاد لإنتاج المنتجات والوقود عالي الجودة، وبالتالي تقليل الفجوة الاستيرادية لهذه المنتجات. كذلك يدعم البنك الإفريقي للتنمية مصر في تحقيق خططها للطاقة المتجددة. وفي هذا الصدد، يتطلع البنك الأفريقي للتنمية إلى دعم مشروعات مزارع الرياح في منطقة خليج السويس ومشروع الطاقة الشمسية في منطقة كوم امبو عن طريق اتاحة تمويلات ميسرة من صندوق التكنولوجيا النظيفة ومن البنك الأفريقي للتنمية بإجمالي نحو 410 مليون دولار أمريكي

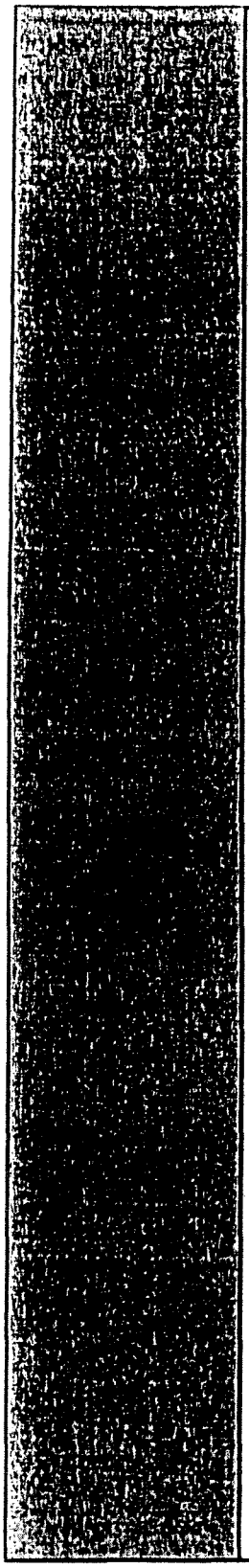
Donor	**Australian Embassy**	بسفارة أستراليا بالقاهرة
Participant	Bridget Collier	السيدة بريدجيت كولير
Position	First Secretary	، السكرتير الأول
Info about organization / institution	The Australian Embassy in Cairo represents the Government of Australia in Egypt. We have an interest in the energy sector in Egypt	تمثل سفارة أستراليا بالقاهرة حكومة أستراليا في مصر ونحن نهتم بقطاع الطاقة في مصر لتوفير فرص الاستثمار وللحفاظ على البيئة.

	from an investment and environmental perspective.	

Donor	**British Embassy**	السفاره البريطانيه
Participant	Hanaa Ramzy	هناء رمزى
Position	Senior Economist	
Info about organization/ institution	The UK is the biggest investor in Egypt. UK investment has been strategic: companies such as BP and BG (British Gas) are responsible for over 40% of Egypt's oil and gas production	المملكة المتحدة هي أكبر مستثمر في مصر. تعد استثمارات المملكة المتحدة استراتيجية حيث تقدم شركتان هما بريتيش بتروليام وبريتيش جاس أكثر من 40% من انتاج البترول والغاز المصري

Donor	**EU**	
Participant	Ahmed EL BELTAGUI	
Position		
Info about organization/ institution	The support to Egypt amounts on average to Euro 150 million/year. The EU contribution to the development of the Egyptian Energy Sector in the field of energy amounts to Euro 100 million all together. Such contribution is based on grants and targets renewable energy and transmission infrastructure as well as institutional and legislative reforms in the sector.	

Donor	**EIB (European Investment Bank)**	بنك الاستثمار الأوروبى
Participant	Carl-Fredrik Grönhagen	كارل-فريديريك جرونهاجن
Position	Deputy Head of EIB Office in Cairo	
Info about organization/ institution	EIB is the Financing institution of the European Union active in Egypt since	بنك الاستثمار الأوروبي يعد مؤسسة تمويل الاتحاد الأوروبي في مصر



1979.
More than 50% of our total lending volume of around EUR 5.5 bn has been in support of the Energy sector with focus on more efficient and cleaner combined cycle technology power plants. In total EIB has financed 32 projects in the energy sector in Egypt, including project in conventional power generation, power transmission, gas transmission and wind farms

Currently, the EIB is supporting the expansion of Giza North power plant, Gulf of El Zayt wind farm and a large upgrading and expansion of the Egyptian power transmission network including the preparation for interconnection with Saudi Arabia and Gaza.

In addition, EIB is one of the supporters of the important Egyptian Refinery Company project in Mostorod which will increase Egypt's capacity of producing cleaner EU standard diesel.

Future projects currently being developed include the support of wind farms in the Gulf of Suez and the solar project in Kom Ombo.

EIB has EUR 3 bn available for eligible projects in the regions over the coming 2 years.

منذ عام 1979

أكثر من 50٪ من حجم الإقراض لدينا وهو ما يقارب من 5.5 مليار يورو قد وجهت لدعم قطاع الطاقة في مصر، مع التركيز اكثر على تكنولوجيا محطات الطاقة الأكثر كفاءة ونقاوة

و في المجمل فقد قام بنك الاستثمار الأوروبي بتمويل 32 مشروعا في قطاع الطاقة في مصر، بما في ذلك مشروع توليد الطاقة التقليدية، نقل الطاقة الكهربائية ، نقل الغاز ومزارع الرياح .

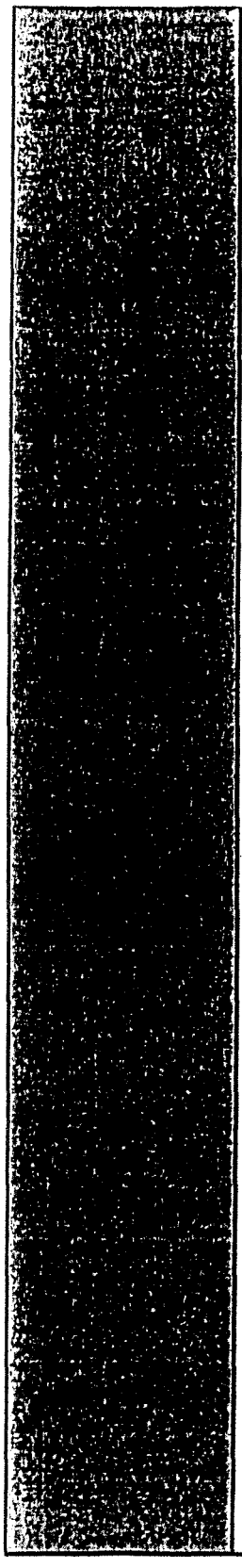
حاليا، بنك الاستثمار الأوروبي يدعم التوسع في محطة الطاقة الخاصة بشمال الجيزة، ومزرعة الرياح بخليج الزيت وايضا يعمل على الإرتقاء بمستوى شبكة نقل الطاقة المصرية وتوسيعها بما في ذلك الإعداد للربط مع المملكة العربية السعودية وقطاع غزة .

وبالإضافة إلى ذلك، فإن بنك الاستثمار الأوروبي يعد واحد من الداعمين لمشروع التكرير بالشركة المصرية في مسطرد والذى بدوره سيزيد قدرة مصر على إنتاج درجة أنقى من وقود الديزل تلائم معايير الاتحاد الأوروبي .

المشاريع المستقبلية التي يجري تطويرها حاليا وتشمل إمداد الدعم لمزارع الرياح في خليج السويس

		وايضا مشروع للطاقة الشمسية في كوم امبو كما ان بنك الاستثمار الأوروبي يرصد3 مليارات يورو للمشاريع المؤهلة في المنطقة على مدى السنتين القادمتين .

Donor:	**GIZ**	
Participant:	Reem Hanna	
Position:	Technical Officer	
Info about organization/ initiative:	In Egypt the technical assistance of the German Cooperation is mainly focusing on the bilaterally agreed upon priority areas of **a) water resources and management** and **b) climate and environmental protection (incl. renewable energy and energy efficiency)**. Other programmes under way focus on employment promotion measures, labour market policy, women's rights and urban development. In the energy/environment sector GIZ is currently implementing 4 programs (overall budget allocation for the period of 2005 – 2015, 25 Mio Euro): 1) On the regional level GIZ assisted in the foundation of the **Regional Center for Renewable Energy and Energy Efficiency (RCREEE)** – an independent policy think-tank based in Cairo, assisting its 13 member countries of the MENA	**التعاون الإنمائي الدولي "جي. آي. زد. مصر" – برامج قطاع الطاقة** يتمثل المحور الرئيسي للتعاون الفني الألماني في مصر في مجالات الأولويات التي تم الاتفاق عليها بين البلدين وهي كالتالي: **أ) الموارد المائية والإدارة؛ ب) حماية البيئة والمناخ (شاملة الطاقات المتجددة وكفاءة الطاقة)**. كما أن هناك برامج أخرى يتم إعدادها في الوقت الحالي والتي تركز على مشروعات في مجال التشغيل وخلق فرص عمل، وسياسات سوق العمل، وحقوق المرأة، والتنمية الحضرية؛ أما في قطاع الطاقة والبيئة فإن الجي. آي. زد. تقوم في الوقت الحالي بتنفيذ أربعة برامج (تخصيص الميزانية المجمعة للفترة من 2005 إلى 2015، بواقع 25 مليون يورو): 1) قامت الجي. آي. زد. على المستوى الإقليمي بالمساعدة على تأسيس المركز الإقليمي للطاقات المتجددة وكفاءة الطاقة، وهي مؤسسة فكرية مستقلة للسياسات ومقرها القاهرة، وهي التي تساعد دولها الأعضاء الثالثة عشرة من إقليم الشرق الأوسط وشمال أفريقيا في وضع السياسات الضرورية والتنسيق فيما بينها وذلك بغرض نشر استخدامات الطاقات المتجددة وكفاءة الطاقة، كما يتم أيضا دعم المركز من قبل الحكومة المصرية (وزارة الكهرباء والطاقة)؛ وقد تم تقديم مساعدة إضافية للمركز في المرحلة الأولى لإنشائه وذلك من قبل



region in setting the required and harmonized policies for the promotion of RE and EE. RCREEE is also being supported by the Egyptian Government (Ministry of Electricity and Energy); in its start-up phase additional assistance was also provided by the Danish Government (DANIDA) and the European Commission. RCREEE is closely coordinating its efforts with the energy department of the League of Arab States; as a joint exercise the Arab Energy Efficiency Guideline has been recently developed and officially adopted. (duration: 2008 – 2013)

2) On the national level GIZ is assisting the Ministry of Electricity and Energy in managing the **Egyptian-German Joint Committee for Renewable Energy, Energy Efficiency and Environmental Protection (JCEE)** - a bilateral platform established in 2008 meant to facilitate the multi-stakeholder policy dialogue on these issues in Egypt. Apart from improving the legal and regulatory and institutional framework conditions

الحكومة الدنماركية (دانيدا) وكذا من المفوضية الأوروبية؛ كما أن هناك تنسيق وثيق ما بين جهود المركز وإدارة الطاقة بجامعة الدول العربية حيث اشتركا في الأونة الأخيرة في إعداد وتبني المبادىء الإرشادية لكفاءة الطاقة في الدول العربية (2008 – 2013).

2) وعلى المستوى المحلي تقوم الجي. آي. زد. بمعاونة وزارة الكهرباء والطاقة **في إدارة اللجنة المصرية الألمانية المشتركة للطاقات المتجددة وكفاءة الطاقة وحماية البيئة**، وهي التي تمثل قاعدة رئيسية مشتركة تم إنشائها في عام 2008 بغرض تيسير حوار السياسات بين الأطراف المعنية المتعددة في مصر؛ وبالإضافة إلى تحسين الشروط الإطارية القانونية والتنظيمية والمؤسسية (خطط التعريفة المميزة لطاقة الرياح، وإنشاء مكاتب لكفاءة الطاقة في القطاعات الرئيسية المستهلكة للطاقة) لنشر استخدامات الطاقات المتجددة وكفاءة الطاقة، فإن اللجنة المصرية الألمانية المشتركة للطاقات المتجددة وكفاءة الطاقة وحماية البيئة تستهدف في المقام الأول تمكين المؤسسات الشريكة المصرية من صياغة وتنفيذ السياسات اللازمة لتحقيق هدف توليد 20% من إنتاجها للكهرباء من مصادر طاقات متجددة بحلول عام 2020 (2008 – 2014).

3) كما تقوم الجي. آي.زد. بتقديم العون إلى وزارة الصناعة والتجارة الخارجية في إطار **برنامج تنمية القطاع الخاص** بصفة عامة للتشجيع على تطبيق كفاءة الطاقة والموارد في المشروعات الصغيرة والمتوسطة وأيضا للتحويل التدريجي للصناعة المصرية لتصبح "اقتصاد أخضر"؛ وفي إطار برنامج تنمية القطاع الخاص فقد تم أيضا إطلاق

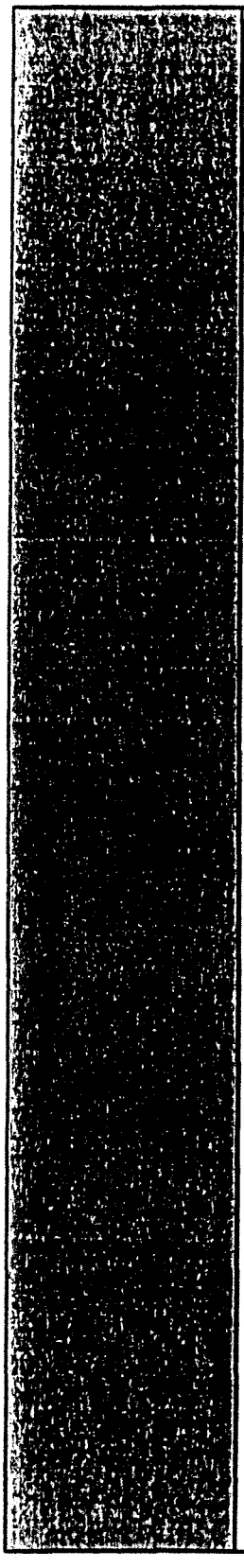
المبادرة المتميزة وهي "مبادرة جرين ستار هوتل" (للفنادق الخضراء) وهي مبادرة مشتركة مصرية ألمانية كشراكة بين القطاعين العام والخاص وهي التي تستهدف تقديم خطة لاعتماد الفنادق التي تعمل على الحفاظ على الموارد وعدم الإضرار بالبيئة، وهي أداة الهدف منها تشجيع السياحة العالمية لتصبح سياحة خضراء من خلال التنفيذ على المستوى المحلي. (2005 – 2015)	(feed-in-tariff-scheme for wind energy, establishing energy efficiency offices in the main energy consuming sectors, etc) for the promotion of RE and EE, JCEE first and foremost aims at enabling the Egyptian partner institutions to formulate and implement the required policies to achieve the target of generating 20% of its electricity production from renewable energy resources by the year 2020. (duration: 2008 – 2014)
4) وبالتعاون مع وزارة التعليم العالي والبحث العلمي تقوم الجي. آي. زد. بالمساعدة على تنفيذ **"دورة دراسات عليا ثنائية الثقافة للحصول على درجة الماجستير في العلوم في مجال الطاقات المتجددة وكفاءة الطاقة (ريمينا)"** وهي موجهة نحو الوفاء بالطلب وتحقيق المعايير القياسية العالمية، وتتمثل المجموعة المستهدفة من البرنامج في طلاب عرب وألمان متخصصين ويملكون خلفيات متنوعة وممن لديهم خبرة مهنية سابقة في المجال المعني، وتشترك في تنفيذ دورة الماجستير كل من جامعة القاهرة وجامعة كاسل (2008 – 2013 /3 intakes لمدة عامين بدورة الماجستير).	3) Furthermore GIZ assists the Ministry of Industry and Foreign Trade under the framework of the **Private Sector Development Program (PSDP)** generally speaking to promote Resource and Energy Efficiency in Small and Medium Enterprises and to gradually transform the Egyptian industry into a "green economy". Under the PSDP i.e. also the prominent "Green Star Hotel Initiative" was established as an Egyptian German Public Private Partnership (PPP) aiming to introduce a certification scheme for resource efficient and
وفي الآونة الأخيرة تم البدء في تنفيذ مكون مساعدة فنية إضافي بالتعاون الوثيق مع بنك التنمية الألماني (كي. اف. دبليو.) لدعم تنفيذ البرنامج القومي لإدارة المخلفات الصلبة وذلك بالتعاون مع وزارة البيئة.	

	environmentally friendly hotels and meant as a tool to internationally promote green tourism on a national scale. (duration: 2005 - 2015) 4) In cooperation with the Ministry of Higher Education and Scientific Research GIZ assists in the implementation of a "**Bi-cultural Postgraduate Master of Science course in renewable energies/energy efficiency (REMENA)**" which is demand-driven and meets international standards. The programme's target group are Arab and German specialised students from a variety of backgrounds who have preliminary professional experience in the field. The master course is jointly implemented by the University of Cairo and Kassel University (duration: 2008 – 2013, 3 intakes for a 2 years master course) Recently an additional technical assistance component has been kick-started in close coordination with KfW supporting the implementation of the National Solid Waste Management Program in	

	cooperation with the Ministry of Environment.	

Donor	**JICA**	
Participant	Mr. Hideki Matsunaga	
Position	Chief Representative of JICA Egypt Office	
Interested organizations/ Institutions		

Donor	**KfW** (German Development Bank)	بنك التنمية الألماني
Participant	Rawya Elshazly	راوية الشاذلي
Position	Programme Officer Energy Sector	مسئول برامج- قطاع الطاقة
Interested organizations/ Institutions	KfW is the financial arm of the German Development Cooperation as lead by the German Federal Ministry for Ecomic Cooperation and Development. KfWs engagement in Egypt is based on regular government agreements between Egypt and Germany. KfW Banking Group was founded in 1948 while the cooperation with Egypt started in 1961. The magnitude of the current portfolio in Egypt amounts to 1.6 billion EUR, allocated to different focal sectors such as Energy and Environment , Water Resources, Education and Employment Promotion. Energy is one of the most important focal sectors in the Egytian-German Financial Cooperation. The currently committed financing is in excess of 600 mio EUR mainly including both Renewable Energy (wind, solar and	إن بنك التنمية الألمانية (KfW) هو الذراع المالي للتعاون الإنمائي الألماني وهو الذي يتم تحت مظلة الوزارة الألمانية الفيدرالية للتعاون الاقتصادي والتنمية؛ ويقوم عمل KfWفي مصر على أساس من الاتفاقات المستمرة بين حكومتي مصر وألمانيا. تم إنشاء مجموعة KfW المصرفية في عام 1948، في حين أن التعاون مع مصر قد بدأ في عام 1961، ويصل حجم المحفظة الحالية في مصر إلى 1.6 مليار يورو تم تخصيصها لقطاعات رئيسية مثل الطاقة والبيئة، والموارد المائية، وتنمية مجال التعليم والتشغيل. وتعد الطاقة من بين أهم القطاعات الرئيسية في إطار التعاون المالي المصري الألماني، وقد تم الالتزام بتقديم تمويل يزيد على 600 مليون يورو وذلك ليغطي في المقام الأول الطاقات المتجددة (الرياح، والطاقة الشمسية والمائية)، وكفاءة الطاقة، وذلك بالإضافة إلى أعمال تجديد وإعادة تأهيل محطات الطاقة



hydro), Energy Efficiency as well as rehabilitation of existing thermal power plants.
Renewable Energy projects co-financed by KfW include the construction of wind farms in Zafarana (150 MW), Gabal El Zeit (200 MW) and Gulf of Suez (200 MW) . For the two latter projects KfW leads a consortium of European Development Partners (along with EU, AFD and EIB). KfW currently conducts the Renewable Energy Master Plan for Egypt (financed through the EU) . KfW is also a partner in the planning of the first Concentrated Solar Power Plant to be developed in Kom Ombo. On behalf of the European Partners KfW organises the on-going feasibility study for the project and plans to offer significant financing for the project on behalf of the German government together with other donors.
Other than project investments, KfW also supports the sustainability of the projects by providing grants for specific issues such as Operation and Maintenance plans or bird protection measures for wind farms.
Based on concluded Egyptian-German governments agreements KfW is currently supporting the Egyptian Supreme Council on Energy

الحرارية القائمة بالفعل.
ويشارك KfW في تمويل مشروعات الطاقات المتجددة والتي تشمل بناء محطات رياح في الزعفرانة (150 ميجا واط)، وفي جبل الزيت (200 ميجا واط) وفي خليج السويس (200 ميجا واط)؛ وفيما يتعلق بالمشروعين المذكورين أخيرا فإن KfW يرأس اتحاد يتكون من شركاء التنمية الأوروبيين (وذلك بالإضافة إلى الاتحاد الأوروبي، والوكالة الفرنسية للتنمية، وبنك الاستثمار الأوروبي)؛ ويقوم KfW في الوقت الحالي بقيادة عملية إعداد خطة رئيسية للطاقات المتجددة (والتي يقوم بتمويلها الاتحاد الأوروبي)؛ كما أن KfW هو أيضا شريك في عمليات تخطيط أول محطة لإنتاج الطاقة الشمسية المركزة والتي سوف يتم إنشائها في كوم أمبو؛ وبالنيابة عن الشركاء الأوروبيين يتولى KfW تنظيم دراسة جدوى المشروع وهي التي يجري إعدادها في الوقت الحالي، كما يخطط لتقديم تمويل كبير للمشروع نيابة عن الحكومة الألمانية وبالتعاون مع جهات مانحة أخرى.
وبخلاف توفير استثمارات للمشروعات فإن KfW يقوم أيضا بدعم استدامة المشروعات من خلال تقديم منح لمحاور محددة، على سبيل المثال خطط التشغيل والصيانة أو إجراءات حماية الطيور من مخاطر محطات الرياح.
وعلى أساس من الاتفاقات التي تم إبرامها بين حكومتي مصر وألمانيا يعمل حاليا على دعم KfWفإن المجلس الأعلى للطاقة في مصر وذلك فيما يتعلق بتخطيط مشروع يهدف إلى ترشيد و تحسين كفاءة

	in planning energy efficiency measures in the public sector.	الطاقة في المنشآت الحكومية.

Donor Entity	**Spanish Embassy in Egypt**	السفارة الاسبانية في مصر
Participant	Maria Cruz Ciria	ماريا كروز ثيريا
Position	Head Development Cooperation	مديرة مكتب التعاون الاسباني من اجل التنمية
Info about Organization/ Institute	Spanish Embassy is working in Egypt in the Energy Sector trough three main lines: Technical, Development and Financial Cooperation. 1. Projects within Development and Technical Cooperation Programme: Project: Climate Change. Risk management Programme in Egypt. Grant of 4 M USD from the Spanish Fund for achievement MDGs through UN Agencies. Thematic window: Environment and Climate Change. The main objectives of the Programme are: - Supporting the National Policy Reform for a more sustainable energy economy achieved. - Enhancing capacity of the country for National Climate Change adaptation. Support the development of Policy Framework for Water resources and Agriculture adaptation. - Advocacy and awareness for Energy Efficiency and Climate Change adaptation.	تعمل السفارة الاسبانية في مصرفي قطاع الطاقة عن طريق ثلاثة خطوط رئيسية وهي: المعونة الفنية والتنمية والتعاون المالي. 1. المشاريع في اطار برنامج التنمية والتعاون الفني: المشروع: التغير المناخي. برنامج إدارة المخاطر في مصر. منحة قدرها اربعة ملايين دولار امريكي من الصندوق الإسباني للأهداف الإنمائية للألفية من خلال إنجاز وكالات الأمم المتحدة. الموضوع: البيئة والتغير المناخي. وتتمثل الأهداف الرئيسية للبرنامج في ما يلي: - دعم السياسة الوطنية للإصلاح لتحقيق طاقة اقتصادية أكثر استدامة. - تحسين قدرة البلاد لتكيف على التغير المناخي. دعم تطوير إطار السياسة العامة للموارد المائية وتكيف في الزراعة. - الدعوة والتوعية بالاستخدام الكفء للطاقة والتكيف على التغير المناخي. ويتم تنفيذ البرنامج من خلال: الوكالة المصرية للشؤون البيئة، ((EEAA)، المركز المصري للبحوث الزراعية (ARC)، مجلس الوزراء، المركز القومي لبحوث المياه (NWRC)، والقطاع الخاص، ووكالات الأمم المتحدة. 2. المشاريع في إطار مذكرة التفاهم حول التعاون المالي بين اسبانيا ومصر. يقدم برنامج التعاون المالي بين اسبانيا ومصرقروضا ودعما فنيا لمصر لتمويل

The Programme is implemented through: Egyptian Environmental Affairs Agency (EEAA), Egyptian Agriculture Research Center (ARC), Cabinet of Ministers, National Water Research Center (NWRC), private sector, and UN Agencies.

2. Projects under the MOU (Memorandum of Understanding on Financial Cooperation) between Spain and Egypt.

The Financial Cooperation Program between Spain and Egypt offers to Egypt Concessional loans and grants to finance projects and studies that are executed by Spanish companies, and Technical Assistance.

In the renewable energy sector, Spain has funded the following projects to NREA (New and Renewable Energy Authority):

- Construction of a 85 MW wind power park in Zaafarana through a credit of 59 M €, with a concessionality up to 35%, approved in 2006. The Project was executed by the Spanish Company Gamesa. Additionally, a Public Spanish Company conducted technical assistance to NREA regarding to a testing commissioning and final

المشاريع والدراسات التى يتم تنفيذها من قبل الشركات الاسبانية.

مولت اسبانيا في قطاع الطاقة المتجددة، المشاريع التالية لهيئة الطاقة الجديدة والطاقة المتجددة:

- انشاء حقل طاقة الرياح بسعة 85 ميغاواط في الزعفرانة من خلال قرض بمقدار 59 مليون يورو، مع اعفاء بحد 35٪، والذي تم الموافقة عليه في عام 2006. وتم تنفيذ المشروع من قبل شركة جاميسا الاسبانية. بالإضافة إلى ذلك، قامت شركة اسبانية عامة بتقديم المساعدة الفنية بدون مقابل لهيئة الطاقة المتجددة فيما يخص الاختبار التكليف والقبول النهائي للمشروع. وحاليا حقل طاقة الرياح تشتغل.

- دراسةجدوى إقامة حقل طاقة الرياح بسعة 120 ميغاواط في خليج الزايت: منحة من 260000 يورو.

مشاريع ما زال قيد المافقة على التمويل:

- انشاء حقل بسعة 120 ميغاواط في خليج الزايت من خلال قرض ميسر بمقدار من 120 مليون يورو.
- دراسة جدوى انشاء حقل طاقة الرياح بسعة 200 ميغاواط في خليج السويس: منحة من 500000 يورو.

قامت الشركة الاسبانية ايبردرولا ببدء تشغيل بالكريمات مركزالطاقة بسعة 150 ميجاوات والذي يعتبر رائدا في العالم حيث تشمل تكنولوجيا تجمع الغاز بالطاقة الشمسية.

	acceptance of the project without cost to Egypt. The wind power park is currently operational. - Feasibility Study for a 120 MW wind power park in the Gulf of El-Zayt: a donation of 260,000 euros. - The Spanish company Iberdrola has launched the Kuraymat Central Power of 150 MW considered a pioneer in the world, since it incorporates a technology that combines gas and solar energy. On process of Approval for funding: - The construction of a 120 MW wind power park in the Gulf of El-Zayt through a concessional loan of € 120M. - Feasibility Study of a 200MW wind power park in the Gulf of Suez: a donation of 500,000 €.	

Donor	**Swiss Embassy**	
Participant	Iman Radwan	
Position		
Info about organization/ institution	The Swiss Federal Council decided to increase its support to the economic development in Egypt in response to the Egyptian Revolution. For this purpose a Cooperation Office (SCO)	

	has been established in June 2011, where two different government agencies responsible for implementing development programs are represented: The Swiss Agency for Development and Cooperation (SDC) and the State Secretariat for Economic Affairs (SECO). Economic development and employment focuses on the following area: 1. Basic Infrastructure Financing: (water & waste water, Waste Management and New and Renewable Energy) 2. Private Sector Development/SMEs' Promotion and Job Creation 3. Trade Promotion 4. Macro Economic Support New & Renewable Energy and Energy Efficiency are areas of interest identified under the SECO Country Strategy 2009-2012. Currently, we do not have concrete projects, however, we are willing to cooperate with the Government and other donors in funding and implementing of projects in this sector.	

Donor	**UNDP**	
Participant	Mohamed Bayoumi	
Position	Assistant Resident Representative	
Info about organization	The United Nations Development Programme	

Institution	(UNDP) Energy and Environment Portfolio include projects with a total budget of about US$ 40 million in grants. The energy relevant projects are focused on energy efficiency and renewable energy in the different sectors including energy efficiency in the electricity sector whose first phase has developed energy efficiency Standards and Labels (S&L) for five home appliances as well as the testing laboratories, construction code for new buildings, promotional programme for CFLs, support to ESCOs, loan guarantee programme for energy efficiency projects. The second phase of the project just started and will focus on market transformation to energy efficient lighting technologies and increasing number of home appliances covered by S&L programme and enforcement of ministerial decrees. Other energy related projects include promotion of biomass energy technologies for rural development that will focus on biogas household units, biogas units for chicken farms and community gasification units. The Sustainable Transport Project aiming to promote public transportation, non-motorized transport and better management of freight transport. Furthermore UNDP initiatives include support for	

[redacted]	development of CDM markets as means for improving energy efficiency, and support to national energy policy reform.	

[redacted]	**UNIDO**	
[redacted]	Giovanna Ceglie	
[redacted]	UNIDO Representative and Director Regional Office	
[redacted]	The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. In the field of energy, UNIDO is engaged in Egypt both on Industrial Energy Efficiency and promotion of Renewable Energies. In the field of Energy Efficiency UNIDO technical assistance package is focused on: definition of energy benchmarks and energy management standards, awareness raising in the industries on the importance of energy efficiency, training of energy managers and implementation of energy efficiency plans within the industrial sector. In the field of renewable energies, UNIDO is designing a program to promote solar energy for heating and cooling applications. The project also envisages supporting local production of	

	solar technologies and components by local small and medium enterprises.	

Donor	**US Embassy in Cairo**	
Participant	Rachel Aicher	
Position	Environment, Science, Technology & Health Officer, US Embassy Cairo	
Private Sector Organizations/ Institutions	US companies including GE (turbines) and PGESCO (construction) are involved in building and equipping power plants; we also have a number of companies in the US that manufacture products for renewable energy; there are also partnerships among several US and Egyptian scientists concerning renewable energy.	

Donor	**USAID**	
Participant	Richard Rerousseau	
Position		
Private Sector Organizations/ Institutions	**Prior USAID Experience in Energy Sector** Since 1975, USAID has provided assistance to the energy sector in Egypt with a total investment of approximately $1.8 billion.The objective was to expanding, reform, and build the capacity of the Egyptian power sector. One-third of Egypt's electrical supply is a direct result of USAID assistance over the past three decades. <u>a. Early History and Energy Infrastructure</u> Initial USAID assistance to the Egyptian power sector	**الأعمال التى قامت بها وكالة التنمية الدولية الأمريكية في قطاع الطاقة** منذ عام 1975، قدمت وكالة التنمية الأمريكية الدولية المساعدة لقطاع الطاقة في مصر، بإجمالي استثمارات تقدر بحوالى 1.8 مليار دولار، و كان الهدف هو تطوير وتوسعه ،وبناءالقدرات الأدارية لقطاع الطاقة. وعلى مدى العقود الثلاثة الماضية فان ثلث امدادات الطاقة الكهربائية في مصر كان نتيجة مباشرة لمساعدة وكالة التنمية الأمريكية. <u>أ. البنية التحتية للطاقة فى التاريخ القريب</u> مساعدة الوكالة الأمريكية للتنمية الأولية لقطاع الكهرباء المصري "تركزت بشكل حصري تقريبا على ضخ رأس مال في القطاع لتوفير قدراتاضافية لتوليد الطاقة،

"focused almost exclusively on the injection of capital into the sector to provide for generation, network control, and transmission/distribution capacities," unlike later programs that addressed issues of institutional reform and capacity building. USAID's early infrastructure projects were grandiose in scale and involved construction and rehabilitation of power plants throughout Egypt, including the following.

- The *Electric Power Distribution Project (1975-1980, $29.8 million)* was USAID's first project in the energy sector in Egypt, and focused on the rehabilitation of electricity infrastructure in Suez, Ismailia and Port Said after damages sustained during the 1973 War.
- An additional project to contribute to reconstruction of the Suez area, the *Abu Sultan (Ismailia) Thermal Power Plant (1976-1988, $249.6 million)*, resulted in the construction of a 450 megawatt (MW) power plant.
- USAID funded the *Helwan and Talkha Gas Turbine Plants (1976-1980, $67.3 million)*, as well as the *Talkha Combined Cycle Power Plant (1982-1991, $64.7 million)*, which supported increased electrical capacity. USAID later added to the Talkha

والتحكم في شبكات التوزيع، ونقل / توزيع الطاقة"، وعلى عكس البرامج الاحقه التي تناولت انشطة الاصلاح المؤسسي وبناء القدرات الأدارية، فقد كانت مشاريع الوكالة الأولوية معنية بمشروعات ذات تكلفة عالية لأنشاء ببنية مرافق القطاع و التى تضمنت أنشاء وإعادة تأهيل محطات توليد الكهرباء في جميع أنحاء مصر، وتضمنت المشروعات التالية:

- مشروع توزيع الطاقة الكهربائية (1975-1980، بتكلفة 29.8 مليون دولار): كان مشروع الوكالة الاول في قطاع الطاقة في مصر، يركز على إعادة تأهيل البنية التحتية للكهرباء في السويس والاسماعيلية وبورسعيد بعد الأضرار التي لحقت بهم من خلال حرب 1973.
- وقد اضيف مشروع اخر للمساهمة في اعادة اعمار منطقة السويس، وأبو سلطان بالاسماعيلية لتوليد الطاقة من محطة توليد حرارية (1976-1988، 249.6مليون دولار)، ونتج عنة إنشاء محطة توليد الكهرباءبطاقة 450 ميجاوات (MW)
- قامت الوكالة بتمويل محطة التوربينات الغازية لحلوان و طلخا (1976-1980، 67.3 مليون دولار)، وكذلك محطة طلخا ذات الدورة المركبة (1982-1991، 64.7 مليون دولار)، والذي دعم زيادة الطاقة الكهربائية. وأضافت الوكالة في وقت لاحق إلى محطة التوربينات الغازية بطلخا نظام الدورة المركبة عن طريق أضافة مولدات بخارية لأستردات الحرارة من عادم التوبينات الغازية لعدد 8 توربينات قائمة.
- وبالتعاون مع جهات مانحة أخرى، قامت الوكالة بتمويل تكاليف توريد المعدات

Gas Turbine Plant under the Talkha Combined Cycle Power Plant by building Heat Recovery Steam Generators for the existing eight turbines.

- In cooperation with other donors, USAID provided funding for construction materials and staff training for the *Shoubrah El Kheima Thermal Power Plant (1979-1991, $261.5 million)*, which resulted in the construction of a 1260 MW thermal power plant.
- Under the *Urban Electric Power Distribution Equipment project (1977-1991, $97.1 million)*, USAID provided equipment and training for the upgrading of urban power infrastructure in Cairo, Shebin El Kom, Alexandria and Beni Suef, with a particular focus on Alexandria.
- USAID funded the *Alexandria Electrical Network Modernization project (1989-1998, $49.5 million)* to upgrade transformers and power lines, install cables and other distribution equipment, and train personnel on safe and proper operation of the distribution network. This project resulted in improved quality and reliability of service, and reduced losses in the distribution process.
- The *Aswan/High Dam*

وتدريب الموظفين لمحطة شبرا الخيمه ذات الطاقة الحرارية (1979-1991، بتكلفة261.5 مليون دولار) والتي أسفرت عن بناء محطة لتوليد الطاقة الحرارية بطاقة 1260 ميجاواط.

- ومن خلال مشروع توزيع الطاقة الكهربائية في المناطق الحضرية، (1977-1991، 97.1 مليون دولار)، قدمت الوكالة الأميركية المعدات والتدريب لرفع مستوى البنية التحتية للطاقة في المناطق الحضرية في القاهرة، وشبين الكوم والإسكندرية وبني سويف، مع التركيز بشكل خاص على الإسكندرية.
- قامت الوكالة بتمويل مشروع تحديث شبكة كهرباء الإسكندرية (1989-1998، 49.5 مليون دولار) وذلك بتحديث المحولات وخطوط نقل الكهرباء، وتركيب الكابلات وغيرها من معدات التوزيع، بالأضافة لتدريب العاملين على التشغيل الآمن والسليم لشبكة التوزيع. و قد أدى هذا المشروع الي تحسين نوعية وأستمرار الخدمة، والحد من الخسائر في عملية التوزيع.
- مشروع محطة كهرباء السد العالي بأسوان (1982-1995، 139.5 مليون دولار) مولت الوكلة إصلاح واستبدال المعدات المعطلة والمكونات القائمة و التى كان قد تم تركيبها في الأصل من قبل الاتحاد السوفياتي السابق.
- مشروع مركز التحكم القومى للطاقة (NECC)(1976-1987، 42.3 مليون دولار) و الغرض منة هو تمويل إنشاء مركز تحكم للطاقة على المستوى القومى لمراقبة والأشراف و التحكم فى نظام الشبكة القومية الموحدة

Power Station project (1982-1995, $139.5 million) USAID funded the repair and replacement of faulty equipment and components originally installed by the former Soviet Union.

- The goal of the *National Energy Control Center (NECC) project (1976-1987, $42.3 million)* was "to fund the construction of a central power-system control center to monitor, supervise, and control the Egyptian united power system."

b. Energy Policy Programs

The Energy Policy Planning project (1982-1992, $20.9 million) was to create capacity within the Government of Egypt (GOE) to more efficiently manage energy resources, and to build the capacity of the Organization for Energy Planning.

USAID completed *Power Sector Support I (1989-2004, $460.7 million)* and *Power Sector Support II (1994-2006, $172.3 million)*, supporting energy policy reform in Egypt. USAID also worked in tandem with the World Bank and IMF. As a result of the projects, the Egyptian Electric Power Authority became independent and now operates as a composite of various independent generation, transmission and

ب. برامج السياسات في قطاع الطاقة

مشروع تخطيط السياسات لقطاع الطاقة (1982-1992، 20.9 مليون دولار) لبناءالكفاءات داخل الحكومة المصرية لإدارة موارد الطاقة بصورة افضل ، وبناء قدرة المنظمات المعنية للتخطيط لقطاع الطاقة.

أستكملت الوكالة مشروع دعم الطاقة الاول (1989-2004، 460.7 مليون دولار)، و مشروع دعم الطاقة الثاني (1994-2006، 172.3 مليون دولار) بدعم إعادة بناء سياسات الطاقة في مصرو عملت جنبا إلى جنب مع البنك الدولي وصندوق النقد الدولي.
وكنتيجة لهذة المشاريع، أصبحت الهيئة المصرية للطاقة الكهربائية مستقلة وتعمل الآن كشركات مستقلة لتوليد و نقل و توزيع الطاقة تحت الشركة القابضة لكهرباء مصر . وبالإضافة إلى ذلك، في إطار هذا البرنامج تم تأسيس الجهاز التنظيمى لمرفق الكهرباء وحماية المستهلك (EEUCPRA)

قدمت الوكالة المساعدة للجهاز التنظيمى لمرفق الكهرباء وحماية المستهلك في إطار مشروع "الخدمات الأستشارية للجهاز التنظيمى " (2003-2005)، والذى استمر فى تقديم نفس الخدمات المقدمة في إطار المشروع التنظيمى لكهرباء مصر (2001-2003). وقد اسفر هذا المشروع عن اقتراح وكتابة مسودة مشروع قانون الكهرباء الجديد.

ج. كفاءة استخدام الطاقة والغاز الطبيعي المضغوط(CNG)

نفذ مشروع ترشيد الطاقة و الحفاظ على البيئة (1987-1998، بتكلفة 141 مليون دولار)، في إطار شراكة مع وزارة الصناعة وجامعة القاهرة وركز على رفع كفاءة الطاقة المستخدمة، ودعم إنشاء جمعية رجال الأعمال المصرية لخدمات الطاقة (EESBA)، وشمل ايضا على تمويل مشروع تجريبي لزيادة كفاءة استخدام الطاقة

distribution companies under the Egyptian Electricity Holding Company. In addition, the Egyptian Electric Utility and Consumer Protection Regulatory Agency (EEUCPRA) was established under this program.

Assistance to EEUCPRA was then provided by USAID under the *Electricity Regulatory Agency Consulting Services project (2003-2005)*, which continued similar services provided under the *Egyptian Electricity Regulatory Project (2001-2003)*. The Electricity Regulatory Agency Consulting Services project produced the draft Electricity Law.

c. Energy Efficiency and Compressed Natural Gas (CNG)

The *Energy Conservation and Environment Project (ECEP) (1987-1998, $141 million)*, implemented in partnership with the Ministry of Industry and Cairo University focused on Energy Efficiency, it supported the establishment of the Egyptian Energy Service Business Association (EESBA), and funded a pilot project to increase energy efficiency in government buildings, as well as the establishment of Energy Service Companies (ESCOs).

في المباني الحكومية، وكذلك إنشاء شركات خدمات الطاقة (ESCO)

"برنامج السياسات البيئية في مصر" *(EEPP) (1999-2004)* شمل مجالات واسعة تتعلق بالبيئة، تضمن كفاءة استخدام الطاقة من خلال دعم EESBA لأنشاء برامج محلى مصمم خصيصاً لأعداد مدريين معتمدين في ادارة الطاقة ويشمل المشروع ايضاً على إعداد استراتيجية قومية لكفاءة استخدام الطاقة (NEES) بالاشتراك مع مع جهاز تخطيط الطاقة. وشجع ذلك التحول من استخدام السوائل البترولية إلى إستخدام الغاز الطبيعي المضغوط (CNG) في قطاع النقل.

وقامت الوكالة الأمريكية للتنمية بتنفيذ أنشطة ملموسة تتعلق بالتحويل لأستخدام الغاز الطبيعي المضغوط في إطار برنامج تحسين هواء القاهرة (CAIP) (1997-2004) ، قدمت الوكالة CAIP 50 ومن خلال أتوبيس تعمل بالغاز الطبيعي المضغوط، والتى تقلل من انبعاث التلوث بنسبة 90٪ أقل من الاتوبيسات القديمة في مصر. و قامت الوكالة أيضا ببناء ورشة فى مدينة نصر لإيواء الاتوبيسات و تدريب العاملين في إصلاح السيارات التى تعمل بالغاز الطبيعي وإنشاء أداة جديدة للصيانة الوقائية للسيارات تعمل بالغاز الطبيعي، وكما تم أنشاء معمل لاختبار انبعاثات الغاز من السيارات التى تعمل بالغاز المضغوط في غمرة

	The *Egypt Environmental Policy Program (EEPP) (1999-2004)* covered broad areas related to the environment, and included energy efficiency through supporting EESBA establish a local customized Certified Energy Manager program. It also developed a National Energy Efficiency Strategy (NEES) with the Organization for Energy Planning. It encouraged conversion from the use of liquefied petroleum gas to compressed natural gas (CNG) in the transportation sector. USAID implemented more concrete activities related to CNG conversion under the *Cairo Air Improvement Program (CAIP) (1997-2004).* Through CAIP, USAID provided 50 buses that ran on CNG, thereby emitting 90% less pollution than Egypt's old buses. To support these new buses, USAID also built a special garage in Nasr City to house the buses, trained personnel in the repair of CNG buses, created a new preventive maintenance tool for CNG buses and upgraded a lab in Ghamra to test the emissions of the CNG buses.	

Donor	**World Bank**	
Participant	Dr. Mohab Hallouda	
Position	Senior energy specialist	
Info about organization/ Institution	• The World Bank supports projects and offers Technical assistance in the	

[redacted]	energy sector. • project loans are in Electricity generation, conventional and renewable (Tebbin, Sokhna, Kurymayt integrated solar thermal (GEF grant), North Giza), Transmission (Wind development TL (samalout-Ras Ghareb)) and natural Connection in Greater Cairo area (300,000 connections), total funding around 2 B$. Technical assistance in wind development, EE, Carbon Capture and Storage, Energy Pricing and others.	

EUROPEAN UNION

DELEGATION TO THE ARAB REPUBLIC OF EGYPT

TENDER CLARIFICATIONS

Publication Ref: EuropeAid/133292/C/SER/EG

Technical Assistance to Support the Implementation of the Energy Sector Policy Support Reform, Egypt

Reference to the Terms of Reference, please note the following:

The 11th point under sub-section *2.3 Results to be achieved by the Consultant* "11. Development of web portals for the Ministry of Electricity and Energy and the Ministry of Petroleum and Mineral Resources" is deleted.

In the third bullet under sub-section *6.5 Incidental expenditure*, the text between parenthesis "(web portal development and related training material)" is deleted.

Question 1:
Is it possible to obtain the 'Egypt Energy Strategy to 2030' study endorsed by the Government mentioned on page 11?

Answer 1:
The document will be made available during the implementation of the contract.

Question 2:
First bullet on page 19 states that a "full fledged programme should be developed". Could you please specify what this programme is expected to include?

Answer 2:
A full fledged programme would include a solid conception, clear basis for implementation such as, but not limited to:

- Awareness campaign and communications,
- Financial incentives including smart financing systems
- Monitoring,
- Auditing,
- Evaluation and benchmarking,
- Involvement of the private sector companies including their capacity locally (in terms of maintenance for instance or after sales services...).

Question 3:
"A performance monitoring on energy utilization in consuming sectors is in place and first reports are prepared at both sector level and central level."

On page 17 it is stated that the consultant should:

Pursue the efforts to set up performance benchmarks and indicators in preparation and the targeted sectors pursued in the programme. These indicators will be further used to set up targets for the targeted consuming sectors and the basis for the performance monitoring system;

Review the existing information available on energy utilization in key consuming sectors, the methodology used to acquire data information on regular basis, the surveys which have been executed, checking the accuracy and liability of data, identify weaknesses, recommend improvements in terms of regular data collection and processing, identify needs for further surveys;

Establishment of sector monitoring systems and reporting systems. This is an important area since it will allow to clearly follow up the implementation of the sector programmes and how they are developing in accordance with the Government objectives.

a) Please confirm that the consultant is going to set up a performance monitoring system in only the 2 or 3 selected sectors.

b) Please confirm that it is the monitoring system mentioned in both the first and the last bullet points.

c) Is the review of existing information available on energy utilization in key sectors going to be implemented in the same sectors as the development of the monitoring systems?

d) As this review on energy utilization is only going to be carried out in some sectors how is the consultant going to develop a report on energy utilization at the central level? Will this be based on energy that has not been reviewed by the consultant, or on centrally available energy utility information?

Answer 3:
a) The monitoring systems will be developed in the targeted 2 or 3 sectors that will be selected.

b) The last bullet points mentions: "Assistance in measuring performance in some selected sub-sectors (for example, large commercial buildings, tourism industry, textile, street lighting)". The sectors referred to in this point are larger than the 2 – 3 sectors referred to in the first bullet point.

c) The key sectors are lager than the 2-3 sectors for which the monitoring system will be developed. Therefore the review of all information data related to energy efficiency.

d) All available documents and reports must be reviewed by the consultant. Process for reviewing the available documents must be part of the consultant's methodology included in the offer.

Question 4:
Please confirm that the Project Steering Committee mentioned on page 21 is not the same as the Energy SPSP Steering Committee mentioned on page 20.

Answer 4:
The project Steering Committee mentioned on page 21 is different than the Energy SPSP Steering Committee mentioned on page 20.

Question 5:
On page 26 under section 7.1 it is stated: "note that these interim and final reports are additional to any required in Section 4.2" does this mean that the consultant needs to develop two interim reports and two final reports?

Answer 5:
There will be one final report only. Interim reports must be prepared every six months during the period of implementation of the tasks. Other types of reports could be requested by the Delegation of the European Union to Egypt.

Question 6:
In the ToR reference is made to a number of different documents and programmes (e.g. Egypt Energy Strategy 2030; different DSM programmes, ministerial decree 401, Ministerial decree 401 in relation to use of SWH in buildings, etc.) can the bidders be provided with link to obtain these documents/ programs as well as an overview of the most relevant documents for thee entire assignment?

Answer 6:
All documents will be provided during implementation.

Question 7:
ToR: In the preparation of the existing energy strategy 2030 – which modeling tool have been used for the forecast of demand, which data sources?

Answer 7:
The information requested will be provided during implementation.

Question 8:
ToR page 9 under point 2.3 number 6 is mentioned as one of the results to be achieved "Energy Efficiency management at the consuming level is enhanced in 2 sectors". Have these 2 sectors been identified?

Answer 8:
The 2 sectors are currently being decided by the Government of Egypt.

Question 9:
ToR page 3 the local gas distribution companies responsible for gas distribution services are today a mixture of privately-owned and publicly-owned. Is there a plan for further involvement of the private sector in gas distribution?

Answer 9:
The private sector is heavily involved in the gas distribution sector. More involvement by the private sector is currently not decided.

Question 10:
ToR: Is it expected the consultant to be involved in any donor coordination work?

Answer 10:
The consultant is expected to coordinate and inform all donors about the work carried out in the framework of this assignment.

Question 11:
ToR: Is the SPSP matrix of conditions for disbursement available for the tenderer?

Answer 11:
Such document will be provided upon contract award.

Question 12:
ToR page 25 under incidental expenditures are included cost for information and communication – specifically mentioned web portal development and related training material. It is possible to obtain information about this web portal development and the training material?

Question 13:
ToR page 9 - Result 11: Web Portal for the Ministry of Electricity and Energy and the Ministry of Petroleum and Mineral Resources. Are there specific requirements concerning the software to be used, or can we use Open Source content management systems, such as Joomla?

Answers 12 and 13:
These questions are no longer relevant – see the introductory paragraph of these Tender Clarifications.

Question 14:
Is a server available for hosting the web portals, or shall the project be tasked with procuring and setting up a server? Alternatively, can the web portals be hosted by an external provider?

Answer 14:
This question is no longer relevant – see the introductory paragraph of these Tender Clarifications.

Question 15:
Financial proposal – Web Portal: will the costs of the server of hosting the web portal be covered under incidental expenditures?

Answer 15:
This question is no longer relevant – see the introductory paragraph of these Tender Clarifications.

Question 16:
Financial Proposal- web portal: if specific software is being required by the beneficiary for the two web portals, are the costs of the software included under incidental expenditures?

Answer 16:
This question is no longer relevant – see the introductory paragraph of these Tender Clarifications.

Question 17:
Financial Proposal: how many years of experience should a senior and junior of the non-key experts have?

Answer 17:
For the non-key Experts:
Senior: at least 10 years of relevant experience
Junior: at least 5 years of relevant experience

Question 18:
Financial proposal: Are we allowed to add differentiated fees for international and local non-key experts in the financial proposal?

Answer 18:
Differentiation should be made between experts resident in Egypt and experts that are non-resident in Egypt. As per ToR under 6.1.2, " Indicative cost of employing expert resident in the country: it is expected to reflect the local market fees when the expert is hired on the local market. Indicatively, the fees per working day for a local senior expert in Egypt are EUR 500 and EUR 300 for a junior expert".

Question 19:
a) Financial Proposal: do the incidental expenditures cover costs for mobilizing non-key experts, such as flight costs from Europe to Cairo?

b) Financial Proposal: are we right in assuming that the fee rates to be quoted under Annex V Budget for the 3 key Experts must include all the costs referred to in note 1?

Answer 19:
a) Incidental expenditures do **NOT** cover costs for mobilising non-key experts, such as flight costs from Europe to Cairo.

b) Yes, all fee rates must cover items under note 1 of Annex V Budget:

- the remuneration actually paid to the experts concerned per working day
- administrative costs of employing the relevant experts, such as relocation and repatriation expenses, accommodation, expatriation allowances, leave, medical insurance and other employment benefits accorded to the experts by the Consultant
- the margin, covering the Consultant's overheads, profit and backstopping facilities

Question 20:
Financial Proposal: are we right in assuming that the fee rates to be quoted in Annex V Budget for the non key experts (senior and junior experts) do not include per diems and air travel costs for missions – approved by the project manager – they undertake from their normal duty station e.g. in Europe or Egypt but are these costs covered by the incidental budget line?

Answer 20:
For non key experts (senior and junior), the fee rates must cover items under note 1 of Annex V Budget:

- the remuneration actually paid to the experts concerned per working day
- administrative costs of employing the relevant experts, such as relocation and repatriation expenses, accommodation, expatriation allowances, leave, medical insurance and other employment benefits accorded to the experts by the Consultant
- the margin, covering the Consultant's overheads, profit and backstopping facilities

Travel costs and subsistence allowances for missions in Egypt and the EU to be undertaken by the experts as part of this Contract from the project's base of operations in the beneficiary country (Cairo, Egypt) can be covered by the incidental expenditure budget after obtaining the prior written authorisation of the EU Programme Manager.

Question 21:
Instructions to tenders: what form of documentary evidence do you require for proving the professional capacity of candidate?

Answer 21:
- Certificates of completion of studies (Masters, PhD, Diplomas etc…)
- Certificates of Recognition and successful completion of assignments from beneficiaries, institutions and clients and other organizations
- Training Certificates

Question 22:
May we kindly request the tender dossier in soft copy?

Answer 22:
Standard templates forming part of the tender dossier are available at the following site: http://ec.europa.eu/europeaid/work/procedures/index_en.htm

Question 23:
We have noticed that the Statement of Exclusivity for the key experts is missing in the tender dossier we have received. We kindly ask you to send us this statement template at your earliest convenience and furthermore like to request the extension of the deadline due to this inconvenience.

Answer 23:
The site http://ec.europa.eu/europeaid/work/procedures/index_en.htm can be used to download the Statement of Exclusivity. The deadline will not be extended.

Question 24:
We would like to know whether Non Key Expert are required to be based in the mission area (Egypt) or whether it is permissible for them to perform some tasks from outside the mission area.

Answer 24:
Non key expert must spend 100% of their time in Egypt.

Question 25:
Would you please confirm whether the budget is 3 million Euros?

Answer 25:
The maximum budget is EUR 3 million.

Question 26:
Are the 420 working days per key expert a maximum, minimum or suggested level of effort.

Answer 26:
420 is the number of working days required for each of the key experts.

Question 27:
Are the experts allowed to conduct part of their work from outside Egypt? What percentage would be acceptable for that?

Answer 27:
Key and non key experts must spend 100% of their time allocated to this assignment in Egypt.

Question 28:
Could we propose a team of two people for a key expert position, while respecting the qualification requirements and the total number of working days?

Answer 28:
No. Each key expert position can be filled by only one key expert.

Question 29:
Could we divide the work of one key expert into distinct areas, to be carried out by two people, while respecting the qualification requirements of the total number of working days?

Answer 29:
No. Each key expert position can be filled by only one key expert.

Question 30:
Could we propose additional key experts if we see the need in our methodology approach?

Answer 30:
No.

Question 31:
What is the minimum percentage of the working time of the key experts which is required to be spent on site?

Question 32:
What is the minimum percentage of the working time of the non-key experts which is required to be spent on site?

Answers 31 and 32:
Key and non key experts must spend 100% of their time allocated to this assignment in Egypt.