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Industrial Energy Efficiency

Final Inception Report

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Abbreviations

AFD	Agence Française de Développement
BOE	Bank of Egypt
EBRD	European Bank for Reconstruction and Development
ECO	Environmental Compliance Office
EE	Energy Efficiency
EEAA	Egyptian Environmental Affairs Agency
EEHC	Egyptian Electric Holding Company
EEU	Energy Efficiency Unit
EnMS	Energy Management System
EOS	Egyptian Organisation for Standardisation and Quality
EPAP	Egyptian Pollution Abatement Project
ESCOs	Energy Services Companies
EU	European Union
FEI	Federation of Egyptian Industries
FIs	Financial Institutions
GDP	Gross Domestic Product
GEF	Global Environmental Fund
GHG	Greenhouse Gases
GIZ	German Agency for International Cooperation
GOE	Government of Egypt
IDA	Industrial Development Agency
IEA	International Energy Agency
IEE	Industrial Energy Efficiency
IMC	Industrial Modernisation Centre
KfW	Kreditanstalt für Wiederaufbau
M&E	Monitoring and Evaluation
M&V	Measurement and Verification
MIFT	Ministry of Industry and Foreign Trade
PMU	Project Management Unit
PSC	Project Steering Committee
SEC	Supreme Energy Council

SO	System Optimisation
TA	Technical Assistance
toe	tonne of oil equivalent
UNIDO	United Nations Industrial Development Organisation
UNDP	United Nations Development Program
USAID	United States Agency for International Development

1 Introduction

The project seeks to address some of the key barriers to Industrial Energy Efficiency (IEE) in Egypt, to deliver measurable results and to make an impact on how Egyptian industries manage energy through an integrated approach that combines capacity building and technical assistance interventions at the policy and energy efficiency project level. Primary target groups of the project are industrial decision-makers (managers/owners), engineers, vendors and other professionals and IEE policy-making and/or implementing institutions. The project will provide technical assistance to develop and help establish market oriented policy instruments needed to support sustainable progression of Egyptian industries toward international best energy performance and to stimulate the creation of a market for IEE products and services. The project will build knowledge and in-depth technical capacity for IEE - with an emphasis on system optimization and energy management systems implementation – within industry, energy professionals and relevant institutions, such as the Egyptian Environmental Affairs Agency and other concerned institutions. The project will provide technical assistance, including energy audits, and will support a limited number of pilot IEE projects with high replication and/or energy savings potential in the key industrial sectors to reach implementation.

The purpose of this report is to present the key findings of the inception phase which took place during the four-months period from January 2013 till end of April 2013.

The project was originally submitted for approval in July 2010. However, the funding was then put on hold due to the political uncertainty in the country. The project was re-activated in 2012 and an inception phase was planned to revalidate the project design, objectives, timelines, budget etc. based on current conditions in 2013.

2 Country Context

The total primary energy demand in Egypt varies between different sources, but according to (Enerdata 2012) it amounted to 78 Million toe in 2011. Fossil fuels represent 96% with natural gas at 53% and oil at 43% while renewable energy (hydro and wind) represents less than 3% and biomass represents 2% (Enerdata, 2012). The total national greenhouse gas (GHG) emissions in 2005 have been estimated in the range of 220 million tonnes Mt CO_{2e} and are expected to grow to 550Mt CO_{2e} by 2030 (McKinsey, 2010).

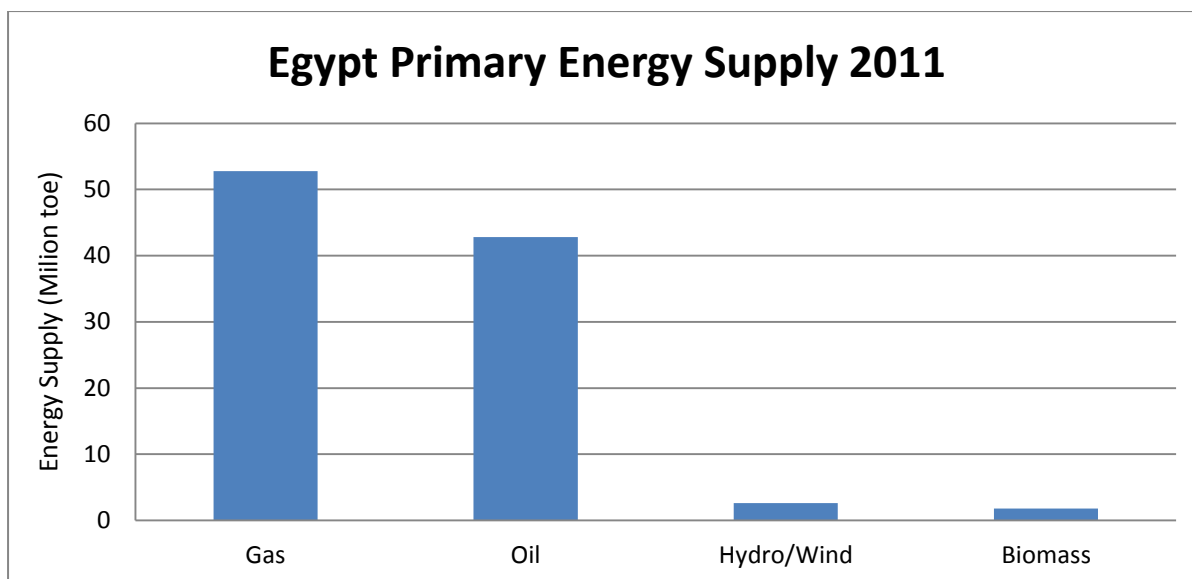


Figure 1 Egypt Primary energy Supply 2011

To assess the gap between the supply and demand in Egypt, a review of three energy studies carried out between 2008 and 2010 revealed that Egypt's projected traditional energy supply would not be sufficient to meet its forecasted demand within a relatively short planning horizon. The results of these studies are shown in Table 1.

Table 1 – Energy Supply and Demand Forecasts from 3 Recent Studies

<i>Study</i>	<i>GOE 2008</i>	<i>GOE 2009</i>	<i>GIZ 2010</i>
<i>Energy Sources</i>	<i>All</i>	<i>Oil and Gas</i>	<i>All</i>
<i>Forecast Year</i>	<i>2021-22</i>	<i>2029-30</i>	<i>2030</i>
<i>Supply (MTOE)</i>	<i>103</i>	<i>92</i>	<i>120-150</i>
<i>Demand (MTOE)</i>	<i>135</i>	<i>141</i>	<i>150-200</i>
<i>Shortage (MOTE)</i>	<i>32</i>	<i>49</i>	<i>30-50</i>
<i>Shortage (%)</i>	<i>24%</i>	<i>35%</i>	<i>25-33%</i>

While the absolute numbers are different in all 3 studies, there is a general agreement that a supply/demand gap is inevitable and within a short planning horizon.

Rising energy demands, coupled with falling oil production, has major implications for state finances, energy security and cost competitiveness, as well as pollution and climate change. Already Egypt is facing diesel shortages and will have to import gas from mid-2013. To meet these challenges Egypt is planning to diversify its future energy supply and to shift its dependence from fossil energy to renewable resources such as wind, solar and biomass energy and possibly other options such as nuclear energy. However, these options will not be sufficient to address the gap between supply and demand in the short term.

Energy efficiency (EE) is recognised by IEA, World Bank and many others as the most cost-effective option to reduce potential supply shortages, improve energy security, and mitigate local and global environmental impacts, and promote employment without compromising economic development. However, the situation in Egypt over recent years has not been supportive for energy efficiency

improvements. Scattered efforts have not led to sustainable activities in the field of energy efficiency. In February 2008, a national study (Government of Egypt, 2008) concluded that energy use could be reduced by 8.3% by 2022 compared to 2007. However, while this has been set as a target for the country, the target has not been accompanied by policies, action plans etc. to ensure its' achievement.

3 Brief Description of Original Project Document

3.1 Project Baseline

In 2009 Egyptian industry consumed almost half of the final end-use energy consumption and 33% of total electricity consumption (EEHC, 2010). Overall industry related GHG emissions account for 29% of the total emissions in 2005 and are expected to increase their relative share to ~36% by 2030 (McKinsey, 2010).

The final energy consumption per unit of output (i.e. specific energy consumption) in the most important industries of Egypt is 10 to 50% higher than the international average (Salmawy, 2010). In other words, the Egyptian industry could have produced the same output with almost 20% less energy.

Energy efficiency has always been a low priority of the industry due to low energy prices supported by subsidies, and preference for second-hand equipment. Given this culture of lack of regard for energy conservation, there exist numerous barriers that stand in the way of financing and implementing energy efficiency options:

- Energy efficiency is not a core interest mission for most companies and company strategies tend to focus on output growth rather than cost management. Most enterprises have a budgetary disconnect between capital projects (equipment purchases) and operating expenses
- Energy intensity benchmarking within the industrial sectors is not established.
- Lack of familiarity with the range of energy efficiency technologies and processes, and energy conservation investment best practices as well as the under-appreciation of financial benefits from energy conservation investments are primarily responsible for the high risk perception among industrial enterprise. There is hesitancy and misconception about the technical risk and the perception that these investments do not bring commensurate financial returns, particularly when compared to the kind of financial returns expected from other investment options

Funding sources are available but not applied for – largely due to the barriers above. In the absence of the project's interventions, institutional capacity to implement innovative EE measures will remain limited, participation of private investors and ESCOs will be delayed, while information dissemination on EE financing and practices will remain limited.

3.2 Project Objective

The Industrial Energy Efficiency project objective is to “facilitate energy efficiency improvements in the industrial sector (with a focus on small and medium enterprises) through supporting the development and implementation of a national energy management standard and energy efficiency services for Egyptian industry as well as the creation of demonstration projects”.

3.3 The UNIDO Approach

The ultimate goal of the project remains the same to “effect sustained energy management and efficiency practices in industry of developing countries and emerging economies in order to reduce the environmental pressure of economic growth while increasing productivity.

The UNIDO approach in energy efficiency is a holistic approach. It will not only focus on technical improvement, but also improvement in policy, management, operations, and financing. It will introduce optimization of an entire energy system rather than optimization of individual equipment component. To ensure sustainability, it will focus on creating a well-functioning local market for Industrial Energy Efficiency services”.

3.4 Project Vision

The project will result in acceleration of the implementation of energy management systems, a pool of local energy system experts, high awareness by industry on the needs and benefits of EE, more EE funds, and streamlined procedures. All these are expected to result in significant increase in the number of companies implementing EnMS, improving their managerial and operational procedures and investing in EE improvement projects. Implementation of ISO 50001 will not only impact on the industry, but also on other sectors of the economy: commercial, transport, buildings, etc.

With a GEF grant of USD 3.95 million, it is expected to result in annual energy savings of 1,277 GWh and corresponding GHG emissions reductions of 291.6 kt CO₂. Assuming a lifetime of 10 years for the energy efficiency technology and energy efficiency equipment, the project yields a cumulative emission reduction of 2,916 kt CO₂ over a 10-year period. These preliminary estimates of energy savings are based on the number of factories that will implement EnMS, energy assessment and SO projects as a result of the direct and indirect impacts of the project at the end of implementation and 5 years afterward, and the average energy savings in each case per factory.

Using a bottom-up approach and assuming a conservative market penetration replication factor of 3, this implies indirect cumulative emission reduction of 8,749 kt CO₂. Another approach is to look at the above-mentioned baseline scenario and how much can be reduced in a more aggressive (project-supported) alternative scenario. Applying a causality factor of 40% (modest, but substantial) gives an upper limit to indirect emission reduction impacts of 44,801 kt CO₂. Details emission reduction calculations are presented in Annex 5 of the UNIDO Project Document.

Table 2 – Project Components & Expected Outcomes as per the Original PD

Project Component	Expected Outcome
1. National program to define energy benchmarks and implement ISO-compatible Energy Management Standard (EnMS) for industry	Supportive policy instruments (EnMS, benchmarks) for delivering EE in industry and contributing to international competitiveness
2. Awareness raising on industrial EE and management in industry	Widespread awareness on EE and energy management
3. Technical capacity building on EE services	A cadre is available of specialized / certified energy management and system optimization experts
4. Access to finance for EE improvement	Increased access to financial assistance for

projects	implementing EE projects
5. Implementation of energy management plans and system optimization	State-of-the-art energy management practices and EE measures are demonstrated

4 Situation Analysis

4.1 Relevant Programmes and Activities

Assessment of the current relevant programmes running in Egypt was conducted during the inception phase. This section describes briefly those programmes.

European Energy Manager (EUREM)

German Arab Chamber of Commerce and Industry

2012-Ongoing

The objective of EUREM is to increase energy efficiency. ERUEM promote company-wide energy savings and hence contribute to climate protection. EUREM is not only a continuing education programme, but also a global networking community of energy efficiency experts. The participants and graduates regularly meet on conferences, workshops and online platforms to exchange experiences, get information on current energy topics and help each other with various tasks.

The goals of EUREM project are to train and qualify specialists, build up a network of experts, intensify the transfer of knowledge and technology, share information and experience, improve the competitiveness of companies, support energy efficiency technologies and export activities, and promote environmental and climate protection world-wide.

Energy Sector Policy Support Programme (SPSP)

European Union Delegation

2013-2016

The Energy Sector Policy Support Programme aims to contribute to improvement of energy policy and regulatory framework and to promotion of energy efficiency and mitigation of GHG emissions.

The programme is designed into four main components, where it is supposed to assist in reviewing & updating Egypt “Energy Strategy to 2030” report and support development of medium term action plan, support to reforming the gas sector regulation, support to strengthening national energy efficiency implementation activities in key energy consuming sectors through capacity building, and offer other supports to facilitate the reform of the energy sector.

Small Business Support in Egypt

European Bank of Reconstruction and Development

2013-Ongoing

Business Advisory Services (BAS) and the Enterprise Growth Programme (EGP) provide micro, small and medium-sized enterprises with assistance from experienced advisors. BAS enables MSMEs (private, majority local ownership enterprises with up to 250 staff) to access a range of local consulting services on a cost-sharing basis by providing grants of up to €10,000.

SBS started operating in Egypt in 2012 with funding from the European Union through the neighbourhood Investment Facility. BAS has received €1.1million in donor funding and has started 20 projects in the country up to date. BAS has also undertaken 5 market development activities to

introduce BAS to local consultants, relevant stakeholders, potential partners and clients to improve the visibility of the support provided. EGP has started 14 projects in Egypt and received a total of €0.8 million in donor funding.

SBS operational focus in Egypt is highly diversified. One of the main focuses of SBS operations is promoting energy efficiency.

Energy Efficiency Project for Lighting and Home Appliances

UNDP/GEF & EEHC

2010-2015

The objective of the project is to facilitate a comprehensive market transformation of the Egyptian market towards the use of more energy efficient electrical appliances at a level where cost-efficiency is proven.

This is envisaged to be achieved through the combination of regulatory tools such as minimum energy performance standards (MEPS) and information labels, enhanced public awareness, capacity building and attractive financing mechanisms. The project will strengthen the regulatory and institutional framework, develop monitoring and enforcement mechanisms, and provide training to public authorities and other relevant stakeholders. It will explore and test different financial incentives complemented by extensive public outreach campaigns.

Egyptian-German Committee on Renewable Energy, Energy Efficiency and Environmental Protection

GIZ

2008-2014

The project comprises policy advice, technical support, demonstration projects, supporting political and institutional change processes, promoting cooperation among the involved ministries and private sector involvement.

The key body involved in the project is the Egyptian-German High-Level Joint Committee for Renewable Energy, Energy Efficiency and Environmental Protection (HLJC). It was founded in 2007 and meets twice a year. Members of the HLJC include seven Egyptian ministries, the Ministerial Council for Energy Issues and the Association of Egyptian Industry. The German Embassy represents BMZ and four other German ministries. GIZ, KfW Entwicklungsbank, several downstream Egyptian institutions and international cooperation projects are also members of the HLJC.

The HLJC addresses the four main priority areas; renewable energies, energy efficiency, energy policy in the electricity sector, and environmental protection/carbon market mechanisms.

15 initiatives are currently being implemented, the aim being to improve the statutory and regulatory framework, to carry out wide-ranging capacity development for key institutions, and to prepare and implement national dissemination programmes (for example, solar hot water collectors) and educational campaigns.

Regional Centre for Renewable Energies and Energy Efficiency (RCREEE)

GIZ

2008-2013

On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and together with the New and Renewable Energy Authority (NREA) GIZ is supporting the establishment and organizational development of the RCREEE, which is based in Cairo. Other cooperation partners

are the Danish International Development Agency (DANIDA) and the European Union (EU).

So far 13 countries have joined the RCREEE: Algeria, Bahrain, Egypt, Iraq, Jordan, Lebanon, Libya, Morocco, the Palestinian Territories, Sudan, Syria, Tunisia and Yemen.

The RCREEE focuses on supporting effective policies, improving the enabling environment for private investments and on developing capacity. The expected measures include implementing of the Arab Energy Efficiency Directive, developing an Arab Strategy for Renewable Energies, conducting draft agreements on land use and power take-up, and certifying and standardizing of solar water heaters.

Pilot Initiative for Private Sector Support

USAID/TFP & WEC

2013-Ongoing

USAID's technical assistance programme, the Trade Facilitation Project (TFP), in cooperation with the World Environment Centre (WEC) is working with MIFT, IDA and the Egypt Cleaner Production Centre (ENCPC) to implement a pilot initiative modelled on PPP. The initiative is pledged to help private sector firms research, identify and implement steps to save energy and protect the environment while at the same time improving their competitiveness in the global market place.

Implementation will start in the food processing sector, a sector that currently accounts for 14% of the all energy consumption in Egypt. The programme will begin with audits of the current energy use for 10-12 selected food processing firms to evaluate existing practices and baseline energy consumption levels, and compare them with the best practices to identify opportunities for improvements. Partner firms will then implement programs while carefully tracking progress, costs and results.

4.2 Co-Operating Stakeholders

The following state bodies are the co-operating partners for the project:

- Egyptian Environmental Affairs Agency (EEAA)
- Industrial Development Authority (IDA)
- Egyptian Organisation for Standardisation and Quality (EOS)
- Federation of Egyptian Industries (FEI)
- Industrial Modernisation Centre (IMC)
- Ministry of Industry and Foreign Trade (MIFT)

4.3 Analysis of Status Quo

To establish whether the project as designed in 2010 will meet its objectives, and to see if the project design can be improved, it is useful to analyse existing policy with regard to Energy Efficiency in Egypt, to look at the current structure of industrial energy use, and to consider what other barriers exist to the project.

Policy Related to Energy Efficiency

Energy Pricing

Energy prices in Egypt have traditionally been heavily subsidised by the state. Energy price subsidies made up 71% of total subsidies in 2011/2012 budget, compared with food which accounts for only

14% (AFD, 2012). Given that subsidies account for approximately one third of the government expenditure, the energy subsidies represent a great burden on Egypt's economy.

Subsidised energy prices also encourage inefficient energy consumption, and are one of the main reasons for the energy intensity and energy inefficiency of the Egyptian economy. However, the pricing system in Egypt is currently being reformed to gradually move towards market-based pricing and restructuring of subsidies without adversely impacting social equities and energy access. Over recent months fuel oil prices have increased by 50% for industrial consumers except certain food industries and power producers, and electricity prices to energy intensive industries – steel, cement, fertilisers, aluminium, copper and petrochemicals – were increased by 40%. Prices will be reviewed annually over the coming 3 years and will gradually be increased to meet production costs (Ministerial Decrees 1795 (2008), 446 (2009), 2130 (2010), 1256-58 (2012), 100 (2013)). This is a major boost to the projects relevance to industry and enhances its chance of success.

Legislative Context

Countries require a legal and regulatory framework for Energy Efficiency (EE) in order to:

- Provide strategic direction for national energy efficiency programs
- Define time based action plans and targets to be achieved
- Strengthen the legitimacy of state organizations involved in EE and their work, and identifying functions and responsibilities within these organisations
- Provide the legal authority for any intervention strategy
- Define resource requirements

Such a framework is lacking in Egypt, which is a potential barrier to the project. However, there are several draft laws in electricity and energy currently being discussed.

Institutional Context

Until recently there has been no dedicated national EE agency with the mandate and authority to plan, develop and implement EE strategy and programs. Responsibility for energy is shared between the Ministry of Electricity and the Ministry of Petroleum. Given that both ministries generate income via energy sales, there is a significant risk of a conflict of interest if these ministries are also responsible for energy efficiency.

Traditionally energy suppliers have based their business model on selling more power to drive profits. Recently in many countries, obligations have been placed on the energy suppliers to promote energy conservation. In the EU it is mandated for all members to obligate the energy suppliers to meet specific energy saving targets through their customers – including their industrial customers. There are no such obligations on Egyptian utility companies.

In 2009 the Government of Egypt (GOE) established an Energy Efficiency Unit (EEU) at the General Secretariat of the Egyptian Cabinet to support the Supreme Energy Council (SEC). The EEU is mandated to streamline EE activities across all consuming sectors and fulfil the national EE targets. While the role of the EEU is still evolving, one of its responsibilities is to conduct the analytical work to support the development of the needed institutional, regulatory, legislative and financing initiatives to enable and sustain improvements in energy efficiency in Egypt

The EEU supporting the SEC is, in turn, supported by sectorial EEUs covering Environment, Industry, Energy and Tourism. The effectiveness of the units differs between the various ministries.

The unit associated with industry has had limited effect to date and is not fully operational and lacks a clear institutional setup. This is another potential barrier which needs addressing.

Energy Efficiency Indicators

For policies to be designed correctly and to operate effectively, a system of measurement to generate indicators relating to EE is required. This requires a set of sector-specific energy indicators. Aggregate indicators such as energy consumption per unit of GDP are not meaningful at the sectorial level. More specific indicators are required to highlight how different sectors of the economy are performing relative to the past and relative to other countries. Specific indicators are also required to analyse whether policies are having the required effect.

Some work has been carried out on developing Energy Intensity Indicators, specifically a study carried out by Environics & ERCC - completed in 2011 (Environics, 2011). However, indicators for industrial energy intensity need improvement to ensure they are appropriate and accurate.

Under Output 1.3, the project will address EE benchmarking and indicators for industry.

Information and Awareness

Access to information is a fundamental component to develop a sustainable EE environment. Sporadic efforts have been made in the past along these lines including a recent UNDP/GEF assisted program on domestic appliance labelling and energy efficiency lighting. However, in general the level of awareness of the importance and the potential of EE is low.

The project is designed to address awareness via Project Component 2. However, it does not address awareness of the policy makers and high level governmental officials involved with the project.

Financial & Fiscal Policy

Financing EE in Egypt has traditionally been challenging due to low energy prices, high interest rates, high collateral requirements and low awareness of EE potential. While a variety of loan funds have been available, take up has been low. Investment has also been hampered by the lack of technical capacity within businesses to prepare loan applications, and lack of technical capacity within banks to analyse loan applications.

A recent analysis by the World Bank (2011) for BOE found that there are many barriers to financing EE programs and a number of financing mechanisms have been developed to overcome these barriers.

For Egypt, the two most relevant mechanisms were found to be:

(i) establishment of an “energy efficiency fund” – a special purpose fund established and monitored by the government with support from interested international development stakeholders; such a fund can use a wide range of financing approaches to deploy funds for EE projects;

(ii) a dedicated “credit line” created using funds made available by donor agencies to local banks and financial institutions (FIs) to facilitate availability of funding for energy efficiency projects. Funds provided by the donors will be leveraged by additional funds from the participating banks/FIs to increase the total volume of funds available.

The project is designed to enhance knowledge on financing IEE projects within industry, consulting firms and financial institutions via various awareness and training programs as detailed in the Project Component 4.

However, the project as currently designed does not propose to set up any new credit facility to assist IEE opportunities which arise as part of the implementation phase. This could result in viable energy saving projects being unable to access finance and failing as a result. Therefore the component 5 will link the IEE opportunities to contribution funding provided by the project partners.

Many countries also use fiscal incentives to encourage EE in the form of accelerated depreciation of investments, tax credits or rebates for purchase or manufacture of EE goods, or for EE investments. The use of fiscal incentives in Egypt is limited. The project, as currently designed, does not deal with fiscal incentives. The project will address this issue through output 1.6 when developing the IEE policy.

Technical Capacity

Due to lack of investment in IEE and lack of awareness of its potential, the level of technical expertise available for IEE projects is not widespread.

Project Component 3 addresses this issue comprehensively.

Standards

Another policy measure available to governments is the setting of standards for energy use within the economy e.g. minimum energy efficiency of buildings, appliances etc. The project, as currently designed aims at providing assistance to EOS in the adoption of ISO 50001 as part of the activities planned under Output 1.1. However, the Egyptian Organization for Standardization and Quality (EOS) has progressed well in the process of the national promulgation of the standard and has already completed the translation of ISO 50001 for adoption by Egypt and currently working on its dissemination. Therefore the project will now support EOS in the dissemination of the standard, establishment of training courses and looking into issues related to conformity assessments, certification and accreditation of experts, institutions and enterprises.

Policy Conclusions

The policy framework for EE in Egypt is very weak and could potentially form major barriers to the project. The original project design fails to address this issue sufficiently.

Take up of existing credit lines is very limited – this requires further analysis which is not adequately addressed by the project as currently designed.

The project does not currently address the requirement for training of state agency personnel on the potential benefits of EnMS and SO. Therefore the inception phase working group recommended to include personnel from Government Agencies in all relevant courses planned under the project to build the capacity of the concerned organizations and support its staff to act as certified energy managers and auditors.

With regard to standards, the project does not adequately address the issue of the structure required to monitor conformance.

Analysis of Industrial Energy Use

The project was originally designed to address small and medium enterprises. According to the IDA over 30% of industrial energy use is consumed by 212 companies in the energy intensive sectors – steel, cement, fertilisers, petrochemicals, copper and aluminium. The project is likely to maximize its

effect if it considers including these companies in its activities, while also supporting other large and medium sized businesses. For small businesses the energy savings would be small, and the payback on introducing a formal EnMS to a small business would probably be too long for most small firms. However, the inclusion of larger industries under the project scope will have an effect on the original targets. Therefore the 100 companies selected to receive further support from the project enabling them to reach conformant level with ISO 50001 shall be revised. The project will, however, need to retain diversity in the beneficiaries in terms of size, geographical area and sector.

Other Potential Barriers

Co-financing

The PD were originally designed to mobilize co-financing of USD 24,121,000 from EEAA, FEI, IMC and private sector both cash and in-kind. During the inception phase, it was evident that the co-financing expected to be mobilized from the project partners is less than original commitments in the Project Document and amounts to \$21,916,796. It is positively noted that whereas EOS and IDA had not made any co-financing commitments during the project document formulation, they have made such commitments during the inception phase. It is expected that due to the increasing price of energy and the energy and fuel shortages facing the country, the industry interest in the project activities will increase and so will co-financing from the private sector. Therefore the decrease in co-financing is not seen as a factor that should prevent the project from moving forward and it will be continuously monitored during the project implementation. Updated letters of commitment for co-financing are included in annex 2 to this report. .

5 Project Implementation Modalities

5.1 UNIDO's Role

UNIDO as the GEF Agency entrusted by the Government of Egypt to implement the industrial energy efficiency project based on its comparative advantage for the GEF, is responsible for managing the subject project. Its responsibilities during the implementation phase involve managing the project on the ground from the project start up through to project completion and evaluation.

UNIDO is accountable to the GEF for the funds of this project and will in close consultation with EEAA and other stakeholders implement the project according to the established UNIDO's rules and regulations and applicable GEF requirements¹. This means that UNIDO will maintain the oversight on

¹ In implementing the project UNIDO is governed by the Memorandum of Understanding between UNIDO and the GEF on Direct Access to GEF Resources dated July 20, 2004. More specifically in managing the funds and procuring goods and services UNIDO is guided by Articles III, V and VI:

Article III

Section 3.04. GEF funds made available to UNIDO in respect of each Allocation shall be disbursed by UNIDO in accordance with UNIDO's standard rules and procedures.

Section 3.06. Notwithstanding the amount specified for a specific budget line item set out in a Project Document approved by the Council or the CEO, as appropriate, for a given Allocation, UNIDO may reallocate funds provided for a specific budget line item under a given Allocation among the categories of items to be funded by such Allocation in accordance with UNIDO's standard procedures so long as such reallocation does not effect Major Changes to the GEF project for which the Allocation is provided. UNIDO shall inform the Secretariat of any such modification in accordance with the GEF's operational policies and procedures.

Section 3.07. In the event that any proposed modification to the specific budget set out in an approved Project Document is likely to effect Major Changes to the GEF Project for which the Allocation is provided, UNIDO shall inform the Secretariat of any such proposed modification and seek the Secretariat's guidance on the necessary steps to be taken to effect such proposed modifications.

Article V

Section 5.01 UNIDO shall be solely responsible for the administration of GEF funds made available to it and will carry out such administration in accordance with its regulations and rules, standard practices and procedures and with the same degree of care as it uses in the administration of its own funds, taking into account the provisions of this MOU.

the project implementation, manage the overall project budget, procure all services required, monitor the project implementation, timely prepare financial and progress report and submit them to the GEF and the Project Steering Committee, as well as organize mandatory and non-mandatory evaluations. Furthermore, it will support the PSC and the Project Management Unit in co-ordination and networking with other related initiatives and institutions in the country. UNIDO will link this project to its global programme on energy management systems and regional initiatives. UNIDO will also provide its technical expertise and mobilize services of specialized experts to support the implementation of the project. To the extent possible, UNIDO will rely on subcontracting firms and institutions for the purpose of delivering key activities or outputs particularly relating to policy support, awareness raising, training services, etc. This is expected to minimize redundancy and improve the quality of work. UNIDO is accountable for the appropriate use of funds, procurement and contracting of goods and services.

UNIDO will submit progress and financial reports to EEAA on a quarterly basis. Financial reports will follow a template that will be agreed upon with EEAA.

UNIDO will also be responsible for reporting to the GEF (as per the GEF reporting requirements) through:

1. Annual progress reports (*project implementation reports*/PIRs) to the GEF summarizing
 - Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative);
 - Project outputs delivered per project outcome (annual);
 - Lesson learned/good practice;
 - AWP and other expenditure reports;
 - Risk and adaptive management;
 - Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.
2. *Mid-term evaluation* of the project will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term.
3. The *terminal evaluation* will focus on the delivery of the project's results as initially planned and as adjusted after the mid-term evaluation, if applicable. The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the

Section 5.02. UNIDO shall take all appropriate measures to ensure that each Allocation is used for the purposes for which it was provided, as set out in the pertinent Project Documents, and shall be accountable to the Council for all activities funded by the Allocations, including the preparation and cost-effectiveness of GEF Projects, and for the implementation of the operational policies, strategies and decisions of the Council with respect to such activities.

Article VI.

Section 6.01. The procurement of goods and services (including consultants' services) for activities financed by the Allocations shall be done in accordance with UNIDO regulations and rules, policies, guidelines and procedures. The recording and reporting to the Secretariat on such procurement shall be done in a manner agreed between UNIDO and the Secretariat.

achievement of global environmental benefits/goals. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response.

4. **Quarter progress reports** were requested from the project by the GEF Unit in EEAA. Those reports should follow a format provided by the GEF unit.

5.2 PMU

The PMU is set to manage the project implementation on a daily basis. The PMU is headed by the national project coordinator who participates as a non-voting member and acts as secretary to the project SC meetings. In addition to the national project coordinator, the PMU has a technical expert and an admin and finance assistant, as well as support staff provided by the counterpart organizations. The technical expert will act as the deputy when the national project coordinator is absent. These 3 posts are paid by the project. Adequate number of technical experts in different disciplines and project management experts/consultants will be associated on a longer-term or short-term basis depending upon the work load. Experts will be hired based on a competitive process following the UN regulations in cooperation with the Egyptian government represented by the NPD. The management team will operate in a close network of the direct beneficiaries and involved Egyptian institutions such as, but not only, EEAA, MIFT, IDA, EOS, FEI, selected training institutions, energy consultant associations and importantly also the industrial sector. The project management team will under the guidance of UNIDO report to the Steering Committee and work in close coordination with the National technical staff representing partners' organizations.

5.3 Steering Committee

The Project Steering Committee (PSC) is established at the inception of the project to provide strategic guidance on the project implementation, and to facilitate the coordination of various Government authorities, institutions and the industries. EEAA will act as the chair of the PSC.

To ensure sustainability, strategic relevance and appropriate national coordination, the PSC is established with the participation of the key stakeholders. The PSC will meet every four months for the first year of project implementation and every six months starting the second year, unless required for ad-hoc meetings, with the mandate to:

- Approve progress reports, including the inception report.
- Approve and provide strategic guidance for the work plan for the coming six months
- Approve major changes in the project document in terms of outcomes, outputs, and budgets.
- Take initiative to ensure sustainability and avoid duplication of activities
- Take initiative to mobilise all relevant stakeholders and partners
- Provide recommendations to the project in terms of relation to specific priorities not foreseen at the time of writing the original project document.

The Project Steering Committee will have a number of permanent members and the option to invite ad-hoc experts. The permanent members will include:

- EEAA, (3 members, including the EEAA CEO, National Project Supervisor, and National Project Director)

- Ministry of Industry and Trade, (3 members, including representatives from EOS, IDA, and IMC)
- Egyptian Federation of Industry, (1 member)
- Ministry of Electricity, (1 member)
- Ministry of Petroleum, (1 member)
- Ministry of Investment, (1 member)
- Supreme Council of Energy, (1 member)
- Ministry of Foreign affairs, (1 member)
- Ministry of International Cooperation, (1 member)
- UNIDO (2 members)

EEAA will act as the chair of the project steering committee. The PSC have the option to invite ad-hoc experts as required.

5.4 EEAA

EEAA, in addition to its role as the GEF Focal Point in Egypt, is the national executing partner responsible for monitoring of the project implementation and mobilizing all the required resources from other local partners, such as MIFT through IDA, EOS and IMC, FEI and other institutions to be identified later on, as well as the industries for the successful implementation of project components.

In order to increase the national ownership and commitment to the project and guarantee the sustainability of the project, the project management unit and UNIDO will work with:

- the national project supervisor from EEAA, appointed by the Minister of State for Environmental affairs to provide technical supervision and guidance in accordance with the instructions of the Minister of Environment
- the national project director from EEAA whose main duties are:
 1. Coordinating the project activities with stakeholders and industry.
 2. Reviewing and approving the activities, prior to financial obligation, to ensure their alignment with the project document and the work plans approved by the Steering Committee. He/she verifies the delivery of procured services/goods and endorses disbursements.
 3. Facilitating and monitoring the progress of project implementation and ensuring the project outputs are delivered in line with the work plans approved by the Steering Committee.
 4. Approving job descriptions of the main project consultants and terms of reference of main sub-contracts.
 5. Assisting UNIDO's evaluations of tender documents and
 6. Mobilizing local resources for the project implementation

Detailed TOR of the NPD are included in the project operational manual

- 5 staff members from national partner institutions including EEAA, IDA, and FEI, who will work on a part time basis to:
 1. Support in data collection activities including information collected for the purpose of producing benchmark reports of selected industrial sectors
 2. Support in the formulation of an energy reporting structure

3. Collection and consolidation of national entities comments on various produced reports and other project documents
4. Distribute information on studies and on standardised methodologies to facility managers of participating Industries to help them in identifying and quantifying the opportunities for improving energy efficiency
5. Support in monitoring implementation and compliance of companies against the adopted energy management plans in participating industries
6. Support in the establishment of a peer-to-peer network to exchange information on energy management
7. Support in performing audits in selected companies
8. Support the implementation of demonstration projects
9. Conduct proper, effective and transparent communications with national entities
10. Support in logistical arrangements related to project activities
11. Assist in discussions and dealings with local and national authorities on matters pertaining to activities described in the project document
12. Integrate the project within national programmes and guide UNIDO and the PMU to relevant national systems and procedures.

Representatives from partner organizations will interact closely with the project management unit to ensure that the implementation is on track.

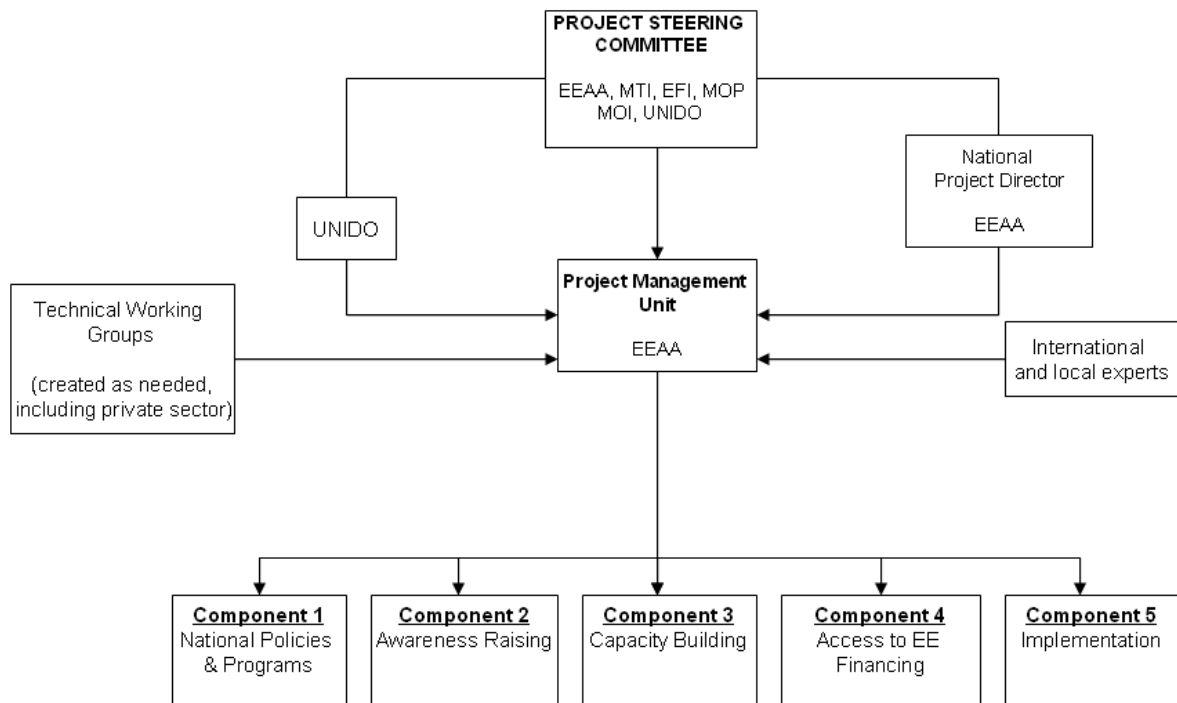


Figure 2 Project Implementation - Arrangement Chart

5.5 Working Group

The Working Group will be formed of representatives from partners' agencies. TORs for the working group will be circulated to the Steering Committee members and agreed upon with the project partners then inserted in the operational manual.

5.6 Stakeholders Roles and Responsibilities

During the inception phase the roles and responsibilities were reviewed with the government partners. Table 4 shows the updated roles and responsibilities as expressed by the project partners.

Table 3 – Agency Roles & Responsibilities

Agency	Anticipated role in GEF/UNIDO IEE project
Egyptian Environmental Affairs Agency (EEAA)	<ul style="list-style-type: none"> • Raise awareness on sources of finance for energy efficiency (such as existing government sponsored incentive programs) • Ensure the co-financing required for the project implementation is mobilized • Guide the overall implementation of the project and liaise with other governmental and non-governmental entities to achieve the project objectives • Conduct national information campaign on the benefits of EE and EnMS • Conduct monitoring and evaluation of project results • Arrange energy management and systems optimization training • Develop post-project action plan
Industrial Development Authority (IDA)	<ul style="list-style-type: none"> • Provide general industrial data and statistics • Provide industrial production and consumption data • Develop the industrial energy database • Develop the energy consumption benchmarks
Egyptian Organization for Standardization and Quality (EOS)	<ul style="list-style-type: none"> • Develop Energy Management Standards (EnMS) compatible with ISO 50001 • Develop Measurement and Verification structure for the developed EnMS • Develop training tools for equipment vendors • Provide training and build capacity of equipment vendors
Federation of Egyptian Industries (FEI)	<ul style="list-style-type: none"> • Provide energy management and system optimization training. • Participate in the dissemination of energy management training tool. • Provide energy survey/Audit for the selected company • Participate in awareness increasing on source of finance for energy efficiency. • Participate in the assessment of industrial system. • Participate in the design and implementation of system optimization audits
Industrial Modernisation Centre (IMC)	<ul style="list-style-type: none"> • Participate in the conduction of preliminary energy audits for factories in accordance to rules and systems implemented by IMC • Technical participation in the dissemination of the UNIDO guide on implementation of ISO 50001 and EnMS

Agency	Anticipated role in GEF/UNIDO IEE project
Ministry of Industry and Foreign Trade (MIFT)	<ul style="list-style-type: none"> • Lead support for IEE Policy development

5.7 Legal Context

This project is governed by the standard basic agreement between GOE and UNDP signed on 19 January 1987 (see Annex 4).

6 Inception Phase Findings and suggested changes

Egypt faces significant challenges over the coming decade in feeding its growing demand for energy imports. Industry is a major energy consumer and IEE has the potential to contribute significantly to cost savings, competitiveness, energy-security and reduced GHG emissions. The project as originally designed has the potential to be a significant contributor to the economy due to:

- High potential impact due to energy intensive economy and high percentage of energy use from industry
- Significant fuel and electricity price increases have greatly increased interest in energy efficiency
- The project is well designed
- There is strong support from all counterparts

However, to further improve the project's impact certain changes are recommended

6.1 Policy

As mentioned in Section 4.3, policy to support IEE is very weak and could be a major barrier to the project's success. This should be addressed as part of the project. The following activities are recommended as part of Project Component 1:

1.6.1 Development of a study assessing current IEE situation

1.6.2 Development of recommended policy document

1.6.3 Development of short-term plan

6.2 Finance

There is a lack of dedicated finance to support IEE projects in Egypt. However, during the Inception phase the project has established links with potential financing entities that could support IEE such as EPAP3, UNDP/GEF Credit Guarantee Facility, FEI ECO financing and AFD, KfW, EBRD. All institutions expressed willingness to support the project activities particularly financing of projects. In order to establish better links to these facilities, the following activities are recommended to be added to the Project Component 4:

4.3.1 Carry out study to determine the investment needs for industry to implement EE measures

4.3.2 Elaboration of a replicable model for IEE finance to assist implementation of projects identified in activities in component 5

4.3.3 Support in the development of dedicated credit lines and financial schemes within national banks and international organizations

6.3 Standards

Output 1.1 – *EnMS developed and adopted (compatible with ISO 50001 EnMS)*: A large part of this activity has been already carried out by EOS. Therefore, it will be changed to:

Output 1.1 – Support in the adoption and dissemination of EnMS (compatible with ISO 50001)

6.4 Awareness

Training for policy makers/governmental officials' staff in EnMS and SO should be included in Project Component 3:

3.1.5 30 personnel from policy makers/governmental officials receive training in EnMS implementation

6.5 Focus in Industry

To maximize impact, small enterprises would be excluded from the project and the project should place particular focus on the energy intensive sector, while also including other sectors, and ensuring also a geographical spread. The project guided by the inception phase working group have developed selection criteria in order to select the industries based on a diversified approach.

Including the energy intensive sectors will require a reduction in the number of companies that can be assisted with EnMS implementations. Therefore Activity 5.1.1 and 5.1.2 should be adjusted to:

5.1.1 150 companies received support to implement EnMS

5.1.2 ISO 50001-compliant energy management plans fully implemented in 60 companies

6.6 Project Management Changes

Following the Inception phase meetings between the stakeholders, the following changes are recommended to the roles and responsibilities of the state agencies:

EOS - should also have a responsibility for Awareness Raising

FEI - should also have responsibilities for

- Provide energy management and system optimization training.
- Participate in energy management training tool.
- Provide energy survey/Audit for the selected company

IMC – its involvement should include only:

- Participate in the conduction of preliminary energy audits for factories
- Participate in the dissemination of the UNIDO guide on implementation of ISO 50001 and EnMS

MIFT – *should* have responsibility to:

- Lead support for IEE Policy development

It is also recommended that the Steering Committee should include a member from the Supreme Energy Council, and that the Working Group will invite specialised experts (training, finance and policy) based on project requirements. .

6.7 Co-financing

As presented in section 4.3. above, the level of co-financing committed during the project development has decreased at the time of the inception phase. It is expected that the project will be able to mobilize additional co-financing driven by increased energy prices resulting from subsidy removal and progress in project activities, therefore it is recommended that the project continues while monitoring the levels of co-financing actually mobilized and exploring additional sources for co-financing during the project implementation. During the early stages of project implementation, it is necessary to agree with the project partners on the breakdown of the committed co-financing and aligning it with the project work plan.

6.8 Minor Changes

A number of other minor changes are also recommended:

Activity 1.4.1 – *Support Egypt’s participation in the multi country effort to develop the UNIDO practical guide to ISO 50001 implementation*: This activity is already complete. However, the guide needs to be translated.

Activity 3.1.1 – *Selection of 2 training institutions* – this activity is not required for EnMS training. However, SO training involves equipment which needs to be sited within a particular institution. This activity will be changed to: *Selection of training experts and training institution*

7 Conclusions

After the submission of the original project for approval in July 2010, a lot of political and economic changes took place in Egypt. Therefore, the findings of the inception phase and the recommendations presented in Section 6 above are expected to greatly increase the chances of success of the project.

The project design, with these recommendations applied, tackles 5 main areas:

Institutional and Policy support – technical assistance to the GOE for developing an IEE policy, support in the development of an M&V scheme for ISO 50001 compliance, and benchmarking on industrial energy use.

Awareness - The project will spread awareness regarding IEE, EnMS, and SO in industry and in state institutions. This will promote demand for IEE technical services.

Technical capacity – technical capacity of the involved stakeholders, policy makers, government, officials, consultants, vendors, energy managers etc. – will be built to ensure that an adequate level of technical experience exists to fulfil the demand that will be developed due to the awareness program.

Finance – The project will provide the support to ensure that appropriate financing schemes are in place, and that adequate expertise and awareness exists within financial institutions and within industry

Demonstration - Finally, the demonstration projects will deliver significant cost, energy and GHG savings, and will prove that EnMS & SO approaches are feasible from an economic and technical point of view.

All stakeholders are committed to support the project strongly. Thus, it has a good chance of making a substantial contribution to cost competitiveness, energy security and pollution & GHG emissions reduction.

Annex 1 - Project Work Plans

Table 4 – 5 Year Work Plan – Outputs, Activities & Budget

		Year1 2013				Year 2 2014				Year 3 2015				Year 4 2016				Year 5 2017			
		Quarter				Quarter				Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Component 1: National Program to define energy benchmarks and EE policy		GEF: USD 554,500 Co-Financing: USD 2,200,000																			
1.1 Support in the adoption and dissemination of EnMS (compatible with ISO 50001)	1.1.1 Stakeholder consultations (seminars) on introduction of a national EnMS standard 1.1.2 Support the Egyptian government in adopting ISO 50001 as a voluntary national standard																				
1.2 Structure in place for measurement and verification (M&V) of compliance with EnMS	1.2.1 Create capacity within relevant organizations (such as EOS) to develop and implement an M&V program 1.2.2 Establish recognition scheme for EnMS experts and organizations and companies compliant with ISO 50001 1.2.3 Establish a (voluntary) reporting program on energy use in industry																				
1.3 Industrial energy database developed and energy consumption benchmarks developed	1.3.1 Promote plant-level energy monitoring 1.3.2 Establish database on industrial energy use for Benchmarking activities 1.3.3 Collect the necessary data, in addition to 1.2.3 for Benchmarking activities 1.3.4 Formulate energy consumption benchmarks for subsectors and publish																				
1.4 EnMS Practical	1.4.1 Translate UNIDO EnMS Implementation guide into																				

		Year1 2013				Year 2 2014				Year 3 2015				Year 4 2016				Year 5 2017			
		Quarter				Quarter				Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Guide Development	Arabic and make available to relevant parties																				
1.5 Post-project action plan	1.5.1 Prepare an action plan for sustaining the energy data tracking and benchmarking program after completion of the five-year project																				
1.6 IEE Policy	1.6.1 Development of a study assessing current IEE situation 1.6.2 Development of recommended policy document 1.6.3 Development of short-term plan																				
Component 2: Awareness raising on industrial EE and Management in Industry		GEF: USD 395,000 Co-Financing: USD 500,000																			
2.1 Peer-to-peer network established (to assist companies in energy management plan design and implementation)	2.1.1 Create a peer-to-peer network to facilitate information exchange among industrial companies through meetings or seminars																				
2.2 National information campaign	2.2.1 Implement a national campaign to build awareness of the benefits of energy management and system optimization (SO) 2.2.2 Recognition and acknowledgement of participating companies and individuals																				
2.3 Monitoring and evaluation of project	2.3.1 Independent mid-term and final evaluation; preparation of inception report and progress reports, annual financial audits by external auditing firm and																				

		Year1 2013				Year 2 2014				Year 3 2015				Year 4 2016				Year 5 2017			
		Quarter				Quarter				Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
achievements; and knowledge sharing	necessary data collection. 2.3.2 Capture information and knowledge gained during project implementation; prepare 20 case studies as a result of the implementation component both on EnMS and SO, 10 case studies for each.																				
Component 3: Technical capacity building on EE services		GEF: USD 596,000 Co-Financing: USD 750,000																			
3.1 Energy management training provided	3.1.1 Selection of training experts and training institution 3.1.2 Training 20 energy experts on EnMS implementation at expert level 3.1.3 300 factory management receiving ½ -day awareness training on energy management 3.1.4 150 factory engineers and/or energy managers receiving 2-day training on energy management 3.1.5 30 personnel from policy makers/governmental officials receive 2 day training in EnMS implementation																				
3.2 Systems optimization training provided	3.2.1 Preparation of training materials on SO 3.2.2 Participating in preparation of UNIDO's SO library 3.2.3 Training 60 energy experts on SO at expert level 3.2.4 150 factory managers, and engineers receive 1 day training on SO including use of UNIDO's SO library																				
3.3 Vendor	3.3.1 50 representatives from Egyptian vendor companies																				

		Year1 2013				Year 2 2014				Year 3 2015				Year 4 2016				Year 5 2017			
		Quarter				Quarter				Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Training Provided	receiving training in energy management and system optimization																				
Component 4: Access to finance for EE improvement projects		GEF: USD 261,000																			
		Co-Financing: USD 750,000																			
4.1 Awareness raised on sources of IEE financing and EE project financing	4.1.1 Seminars and networking meetings on local sources of financing for industrial energy management and SO projects 4.1.2 Training on EE project financing for factory managers																				
4.2 Support existing financial institutions and government-sponsored incentive programs in the technical evaluation of industrial energy efficiency projects	4.2.1 Training financial institutions in the technical evaluation of EE proposals 4.2.2 Trained local experts providing support in identification, development and technical evaluation of EE investment projects																				
4.3 Support in the development of dedicated credit lines and financial schemes within national banks and	4.3.1 Carry out study to determine the investment needs for industry and financing institutions requirements to implement EE measures 4.3.2 Elaboration of a replicable model for IEE finance to assist implementation of projects identified in activities in component 5																				

		Year1 2013				Year 2 2014				Year 3 2015				Year 4 2016				Year 5 2017			
		Quarter				Quarter				Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
international organizations	4.3.3 Support in the development of dedicated credit lines and financial schemes within national banks and international organizations																				
Component 5: Implementation of Energy Management systems and System Optimisation		GEF: USD 1,796,000 Co-Financing: USD 18,910,000																			
5.1 Energy management plans formulated and implemented	5.1.1 150 companies received support to implement EnMS 5.1.2 ISO 50001-compliant energy management plans fully implemented in 60 companies																				
5.2 Industrial systems assessed and demo system optimization projects designed and implemented	5.2.1 In-depth system assessments are completed in 50 facilities with reports prepared. 5.2.2 30 demonstration projects in SO implemented																				

Annex 2 – Cofinance (Official letters from partners showing financial commitment)



مركز تحديث الصناعة
INDUSTRIAL MODERNISATION CENTRE

القاهرة في ١١ مارس ٢٠١٢
Ref: HW/MS/IMC/2012/081



الأستاذة / ترمين أبو العطا
اقتصادي رئيسي - مكتب وزير الصناعة

تحية طيبة وبعد،

بالإشارة إلى خطاب سيادتكم بتاريخ الأول من ديسمبر ٢٠١١ بشأن مشروع "الاستغلال الأمثل للطاقة في الأغراض الصناعية" (Industrial Energy Efficiency in Egypt) بالتعاون مع منظمة اليونيدو وجهاز شئون البيئة بمصر، والذي يهدف إلى تحسين كفاءة استخدام الطاقة في المشروعات الصناعية وخاصة المشروعات الصغيرة والمتوسطة من خلال مساندة وتنفيذ إستراتيجية قومية لتحسين كفاءة استخدام الطاقة، فسعدني إبلاغ سيادتكم بترحيب مركز تحديث الصناعة بالمشاركة في المشروع كما يسعدني إحاطة سيادتكم بأن مركز تحديث الصناعة قد ساهم بإبداء الرأي والمشورة في عدد من مراحل التخطيط للمشروع، كما أفاد المركز في فترة سابقة (بتاريخ سبتمبر ٢٠١٠) على موافقته بأن يعتبر ما يتم صرفه على الأنشطة ذات صلة بالاستخدام الأمثل للطاقة من خلال المركز (مراجعات طاقة، الخ) هي مساهمة مركز تحديث الصناعة في المشروع والتي تقدر حالياً بنصف مليون جنيه مصري على مدى عمر المشروع وهي جزء من مساهمة الجانب المصري في المشروع وذلك في ظل برامج خدمات الطاقة المُقررة والسارية حالياً والتي تُقدم من خلال مركز تحديث الصناعة.

ومن ثم فمركز تحديث الصناعة يقترح تعديل مساهمته المشار إليها في وثيقة المشروع لتكون نصف مليون جنيه وذلك طبقاً للأنشطة المُقررة والسارية حالياً وبعد موافقة مجلس إدارة المركز برئاسة وزير الصناعة

والتجارة الخارجية .

ويسعدني أن أحيط سيادتكم علماً بأنه إضافة إلى ما تم وما يتم حالياً فإن مركز تحديث الصناعة على أتم استعداد للمشاركة في (Project Steering Committee-PSC) من خلال مديره التنفيذي للمعاونة في تسيير المشروع وإيجاد حلقة وصل قوية ما بين المشروع ومركز تحديث الصناعة. والمركز يرحب بالمشاركة في الاجتماع المزمع عقده مع الجهات المعنية الأخرى التابعة لوزارة الصناعة والتجارة الخارجية وممثلي منظمة اليونيدو لتفعيل المشروع في أقرب فرصة ممكنة.

وتفضلوا بقبول فائق الاحترام،،

م/ هشام وجدي عبد الدايم


المدير التنفيذي

العنوان: ٣٠ طريق حنوان الزراعي - خلف فندق سوفيتيل المعادي - القاهرة

فاكس: ٢٥٢٥٦٤٩٠

الهيئة العامة للتنمية الصناعية
دكتورة رئيس الهيئة

صاحب رقم: ٥٦٢ / ١ / ٥٧
تاريخ: ١٤ / ٤ / ٢٠١٣
عدد الأوراق: ١

السيدة الدكتورة / فاطمة أبو شوك
الرئيس التنفيذي لجهاز شئون البيئة
تحية طيبة وبعد،

بالإشارة إلى مشروع تحسين كفاءة استخدام الطاقة في القطاع الصناعي في مصر بالتعاون مع منظمة الأمم المتحدة للتنمية الصناعية UNIDO وعلى اعتبار أن جهاز شئون البيئة الشريك الممثل للحكومة المصرية في إدارة وتنفيذ المشروع.

وفي ضوء ما تم بالإجتماع الذي تم عقده للجانب المصري المشارك في المشروع بتاريخ ٢٠١٣/٣/٦ بمقر وزارة الصناعة والتجارة الخارجية حيث تمت مناقشة النقاط التالية:

- الصناعات التي يمكن إختيارها للمشاركة في المشروع.
- إمكانية تعديل ميزانية المشروع ومساهمة كل جهة بها وذلك لإيجاد بدائل إضافية لتمويل.
- التأكيد على أهمية وجود أعضاء دائمين في وحدة إدارة المشروع PMU ممثلين عن جهاز شئون البيئة ووزارة الصناعة والتجارة الخارجية (٢ ممثل من كل جهة)
- وإيماءاً لما تم مناقشته بإجتماع مجموعة العمل للمشروع WG بتاريخ ٢٠١٣/٣/١٢ تأكيداً على ضرورة أن يتم مشاركة الجهات المشاركة في المشروع برويتها النهائية للنقاط عاليه.

نتشرف بالإحاطة بالآتي:

- مرفق لسيادتكم كشف بيانات عدد (٢١٤) مصنع مسجل لدى الهيئة وذلك بهدف المشاركة في المشروع.
- أن المساهمة العينية المقدمة من هيئة التنمية الصناعية حوالي ١٧٠٠٠٠٠٠ (مليون وسبعمائة ألف جنيه مصري) بما يعادل ٢٥٠٠٠٠٠ (مائتان وخمسون ألف دولار)
- أسماء المرشحات كأعضاء دائمين في وحدة إدارة المشروع لتمثيل هيئة التنمية الصناعية هم:

المهندس / أحمد محمد الشافعي المهندسة / أماني محمد رياض

وتفضلوا بقبول فائق الإحترام،

رئيس الهيئة
دكتور مهندس / محمود الجرف

٢٠١٣

٢٠١٣ / ٣ /

صورة إلى:

السيدة الأستاذة / نيرمين أبو العطا - إقتصادي رئيسي بمكتب الوزير وينسق المشروعات التنموية بالوزارة

المقر الرئيسي: ٦ شارع خليل أغا - جاردن سيتي - القاهرة
الرقم البريدي ١١٤٥١
تليفون: ٢٧٩٤٠٦٧٧ - ٢٧٩٤٠٦٧٨
فاكس: ٢٧٩٤٤٩٨٤

الفرع الرئيسي: القاهرة الجديدة - ٤٢ محور السلام - التجمع الخامس
فاكس: ٢٦١٣٠١٢٩ - ٢٦١٣٠١٣٦
تليفون: ١٣٤ - ٢٦١٣٠١٣٤ - ١٣٥ - ١٣٧ - ١٣٨ - ١٣٩ - ١٤١ - ١٤٢ - ١٤٣
البريد الإلكتروني: ida@mti.gov.eg

EGYPTIAN ORGANIZATION FOR
STANDARDIZATION & QUALITY (EOS)

Chairman

التاريخ :
القيود :
المعرفات :



الهيئة المصرية العامة
للمواصفات والجودة
رئيس مجلس الإدارة

السيدة الأستاذة / نرمين أبو العطا
اقتصادي رئيسي بمكتب السيد الوزير
تحية طيبة وبعد ،،،

إيذاً لكتاب سيادتكم الوارد بتاريخ ٢٠١٣/٣/٢٤ بشأن طلب موافقتكم بأي تعديلات
تراها الهيئة للمشاركة العينية في مشروع كفاءة استهلاك الطاقة الصناعية بمصر وذلك لاحتساب
إجمالي مشاركة الوزارة والجانب المصري -
يرجى التكرم بالإحاطة أنه في ضوء ما هو منوط بالهيئة من أعمال في إطار تنفيذ مكونات
هذا المشروع فإن الهيئة ستقوم بالأنشطة التالية:
١- إصدار عدد ٧ مواصفات قياسية مصرية في مجال إدارة الطاقة تضمن البنات أمرقية
والتحقق : وهي كالتالي:
أ - نظم إدارة الطاقة - المتطلبات وإرشادات للاستخدام.
ب - خطة أساس الطاقة - مبادئ عامة وإرشادات.
ج - مؤشرات أداء الطاقة (EnPIs) - مبادئ عامة وإرشادات.
د - رصد وقياس وتحليل والتحقق من أداء الطاقة للمنشأة.
هـ - تنفيذ الطاقة.
و - تنفيذ نظام إدارة الطاقة وكفاءة المدقق.
ز - إرشادات لتطبيق والحفاظ على وتحسين نظم إدارة الطاقة.
٢- نشر الوعي بالمواصفات الصادرة على مستوى المنشآت الصناعية والجهات المعنية.
٣- المشاركة الفعلية في تطوير وتوفير الاحتياجات التدريبية للتدريب وبناء القدرات في مجال أنظمة
كفاءة الطاقة لتقديمها إلى الشركات العاملة في توريد المعدات الخاصة بنظم كفاءة استخدام للطاقة.
على ضوء ما توضح بعاليه فإن مساهمة الهيئة في أعمال المشروع من خلال تنفيذ
الأنشطة الموضحة عاليه تمثل مساهمة عينية بتقدير مالي على النحو التالي:

16 Tadreeh El Medencheeh St., Ameriya, CAIRO - EGYPT
Departments Service: 22845522 / 22845524
Fax: 22845304
E-mail: hie@ebsc.net.eg

١٦ شارع تدرية المدريين - الامرية - القاهرة
خدمة الإدارات: ٢٢٨٤٥٥٢٢ / ٢٢٨٤٥٥٢٤
فكس: ٢٢٨٤٥٥٠٤



١- إصدار المواصفة الواحدة:

الخبراء المحليين	التكلفة لكل عضو	١٠٠ جنيه مصري	١٦٠٠٠ جنيه مصري
	عدد الأعضاء	١٠ أعضاء	
إصدار المواصفة	عدد الاجتماعات	١٦ اجتماع	٣٤٥٠٠ جنيه مصري
	إعداد	٣٢٠٠٠ جنيه مصري	
	توزيع	١٥٠٠ جنيه مصري	
اعتماد المواصفة	مناقشة ملاحظات	١٠٠٠ جنيه مصري	٤٧٥٠٠ جنيه مصري
	تجهيزات واعداد	١٠٠٠٠ جنيه مصري	
	التكلفة لكل عضو مجلس إدارة	١٥٠٠ جنيه مصري	
اجمالي	عدد أعضاء مجلس الإدارة	٢٥ عضو	٩٨٠٠٠ جنيه مصري

٢- نشر الوعي بالمواصفات الصادرة:

ندوات توعية وورش عمل	تكلفة الندوة	٥٠٠٠ جنيه مصري	٥٠٠٠٠ جنيه مصري
	عدد الندوات	١٠ ندوات	

بواقع تكلفة ١٠٣٦٠٠٠ جنيه مصري لإصدار عدد ٧ مواصفات قياسية مصرية.

٣- التدريب:

عدد المتدربين	١٥
تكلفة المتدرب	٥٠٠ جنيه مصري
تكلفة المدرب	٣٠٠٠ جنيه مصري
عدد الدورات	٢٠
اجمالي	١٦٠٠٠٠ جنيه مصري

على ضوء ما نوضح بهاليه فإن المشاركة العينية للهيئة في مشروع "كفاءة استهلاك الطاقة الصناعية بمصر" تقدر بنحو ١١٩٦٠٠٠ جنيه مصري.
وتفضلوا بقبول فائق الاحترام،،،

رئيس مجلس الإدارة
د. مهندس/ حسن أحمد عبد المجيد

تدريب وإشراف

Annex 3 – Project Log-frame

Table 5 – Project Log-frame

Applicable GEF Strategic Objective and Program: To promote energy-efficient technologies and practices in industrial production and manufacturing processes					
Applicable GEF Expected Outcomes: Improved energy efficiency of industrial production					
Applicable GEF Outcome Indicators: Efficiency of industrial energy use (energy use / \$ GDP); GHG emissions from industry (t CO ₂ e/ \$ GDP); and \$/ t CO ₂ e					
	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
<p>Project Objective</p> <p>To facilitate energy efficiency improvements in the industrial sector through supporting the development of a national energy management standard and energy efficiency services for Egyptian industry as well as the creation of demonstration projects in large and medium sized businesses</p>	<p>A) Average number of investments and resulting energy savings increased</p>	<ul style="list-style-type: none"> • Technical energy savings potential in industry estimated at around 15-30%. Industrial electricity consumption of 42,000 GWh (2012) 	<ul style="list-style-type: none"> • Investment in EE technology and processes of USD 18.9 million (energy management, system optimization and implementation of EE measures and demonstration projects) resulting in energy savings of 1277 GWh per year • 60 companies having working ISO-certified energy management plans 	<ul style="list-style-type: none"> • See below under the various Outcomes • Surveys 	<ul style="list-style-type: none"> • Willingness of industry to invest during project

	B) Direct and indirect emission reduction	<ul style="list-style-type: none"> • GHG emissions from industry were around 41 Mt CO₂ in 2009 	<ul style="list-style-type: none"> • Direct emission reduction (associated with above-mentioned energy savings) of 292 kt CO₂ p.a. and (assuming an average 10-year life of energy investment) 2.92 Mt CO₂ cumulatively • Cumulative indirect emission reduction due to project's capacity building and TA activities ranging from 8.75 Mt CO₂ (bottom-up approach) to 44.8 Mt CO₂ (top-down) 	<ul style="list-style-type: none"> • See below under the various outcomes 	<ul style="list-style-type: none"> • Willingness of industry to invest during and after the project
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	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Outcome 1 Supportive policy and policy instruments for delivering EE in industry and contributing to international competitiveness	1) Status of EnMS M&V structure (<i>output 1.2</i>)	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Accreditation of EnMS experts. EnMS recognition scheme established • Energy reporting structure in place 	<ul style="list-style-type: none"> • Published current list of accredited experts and organizations 	<ul style="list-style-type: none"> • Lack of interest
	2) Comprehensiveness of energy-related databases (<i>output 1.3</i>)	<ul style="list-style-type: none"> • Basic energy consumption data gathering 	<ul style="list-style-type: none"> • 2 training and follow-up events on information supported by project • Information on energy use of about 1,000 industries is updated and expanded and put in the databases 	<ul style="list-style-type: none"> • Database output and statistical reports • Progress report 	<ul style="list-style-type: none"> • Willingness of industries to provide such data (which sometimes can be considered confidential)
	3) Availability of benchmark data (<i>output 1.3</i>)	<ul style="list-style-type: none"> • Benchmark data are available for some sectors 	<ul style="list-style-type: none"> • 2 information and follow-up events on benchmarking supported by project • Benchmark data available per sector and size of industry and made available on the web info portal 	<ul style="list-style-type: none"> • Web portal • Progress report • Seminar presentations 	<ul style="list-style-type: none"> • Sufficient sectorial and technology data can be gathered to be able to define benchmarks
	4) Status of UNIDO guide on ISO 50001 implementation	<ul style="list-style-type: none"> • Guide published but not translated 	<ul style="list-style-type: none"> • Guide translated, distributed and available on web 	<ul style="list-style-type: none"> • Mission & progress report • UNIDO Guide in 	

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	<i>(output 1.4)</i>			Egyptian	
	5) Status of post-project action plan <i>(output 1.5)</i>	• N/A	• Final project report consolidating results & lessons learnt from project implementation, as well as post-project strategy	• Action plan • Project report	• Willingness of implementing agencies and stakeholders to work together in future
	6) Effective IEE strategy in place <i>(output 1.6)</i>	• No strategy in place	• IEE strategy agreed and being implemented	• Mission & progress report	• Willingness of government to drive policy
Outcome 2 Widespread awareness on EE and energy management in industry	7) Status of networking amongst industrial decision-makers <i>(output 2.1)</i>	• No network for Energy Management or Energy Efficiency existing	• Peer-to-peer network established (to assist companies in info exchange, energy management plan design and implementation)	• Minutes of meetings • Progress reports	• Willingness to network within industry or subsectors amongst decision-makers and managers
	8) Status of national information campaign <i>(output 2.2)</i>	• Some awareness created by previous projects, such as USAID, EEIGGR, EPAP etc.	• Range of info materials developed (radio, TV, newspaper, leaflet, booklet) • Info campaign developed on energy management, system optimization and EE in industry in general • 150 companies participating in recognition scheme for participating companies • Decision makers informed through 9-18 events (workshops, seminars, meetings) attended by over 300 industry owners and managers on EE in industry	• Information materials • Progress reports • Attendance records	• Support given by media in Egypt
	9) Improved information	• Some info available on project & institutional	• Upgraded and inter-linked websites (e.g. of EEAA, MIT, ECPC, etc.) to	• Web sites • Project newsletter	• Implementing agencies coordinate the content of

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	services (<i>output 2.2</i>)	websites	provide integrated info on EE • Project newsletter		their websites on EE aspects
	10) Monitoring and evaluation carried out and knowledge captured (<i>output 2.3</i>)	• N/A	• Monitoring (quarterly and annually) • Mid-term & final evaluation • Audit reports • Number of case studies, lessons learned from (inter-) national sources and number of brochures and booklets	• Regular progress reports • Evaluation reports • Reports, booklets, EE brochures	• Adequate documentation, reporting and filing of documents
Outcome 3 A cadre is available of specialized / certified energy management and system optimization experts	11) Enhanced awareness in industry on energy management and energy auditing (<i>output 3.1</i>)	• Technical capacity and awareness needs improvement	• >300 industry owners / senior managers aware of potential of EnMS • 20 consultants trained in implementing EnMS at expert level • 150 industry Energy managers trained in EnMS implementation • 30 government agency personnel trained in EnMS implementation	• Project progress report	• Willingness of the targeted public to benefit from the training and supporting materials • Availability of appropriate expert trainees
	12) Enhanced awareness in industry on systems optimization (<i>output 3.2</i>)	• Technical capacity and awareness needs improvement	• >300 industry owners/senior managers aware of potential of SO • 60 consultants trained in SO at expert level • 150 factory managers and engineers receive SO training • 50 equipment vendors receive SO training		
Outcome 4 Increased access to financial assistance for	13) Enhanced awareness on sources of IEE financing (<i>output 4.1</i>)	• Sources of public and private funding support available, but not fully accessed	• 10-20 information and consultation events on financial mechanisms supported by the project attended by 200-600 people	• Presentation at events • Project progress report • Project website • Attendance records	• Willingness of the targeted public to benefit from the training and supporting materials

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
implementing EE projects	14) Status of TA support to existing financial and loan and credit schemes <i>(output 4.2)</i>	<ul style="list-style-type: none"> Existing schemes do not provide loans for EE in industry due to lack of technical evaluation capacity 	<ul style="list-style-type: none"> 2 institutions supported and number of projects evaluated 	<ul style="list-style-type: none"> Financial institutions leaflets and reports Evaluation reports 	<ul style="list-style-type: none"> Willingness and need of financial schemes to receive TA support from the project and/or trained experts
	15) Study of the investment needed for the industry to implement EE measures and Support to increase sources of finance <i>(output 4.3)</i>	<ul style="list-style-type: none"> Existing studies Few sources of financing support 	<ul style="list-style-type: none"> Study developed New sources of finance available 	<ul style="list-style-type: none"> Study produced New sources of finance available 	<ul style="list-style-type: none"> Financial institutions willing to support IEE investments
	16) Replicable model for IEE finance <i>(output 4.3)</i>	<ul style="list-style-type: none"> Limited existing models 	<ul style="list-style-type: none"> Model developed 	<ul style="list-style-type: none"> Model developed 	<ul style="list-style-type: none"> Willingness and need to replicate the model
	17) Number of IEE projects accessing supporting finance <i>(output 4.3)</i>	<ul style="list-style-type: none"> Limited accessing of existing financial supports 	<ul style="list-style-type: none"> 20 projects supported financially by funding from new and existing credit lines 	<ul style="list-style-type: none"> Reports from financial institutions Project progress report 	<ul style="list-style-type: none"> Selected companies willing to invest Banks willing to support IEE investments
Outcome 5 State-of-the-art energy management practices and EE measures are implemented	18) Number and quality of energy management plans implemented <i>(output 5.1)</i>	<ul style="list-style-type: none"> Basic audit capacity exists in consulting firms; few energy management plans except in large industry 	<ul style="list-style-type: none"> Standardized audit procedures in line with EnMS 50001 Pre-audits, energy management plans and operational improvements made in 150 companies (associated energy and CO₂₊ savings are given in indicator A) and B) ISO 50001-compliant energy management plans fully implemented 	<ul style="list-style-type: none"> Audit assessment report Energy management plans Project progress report Project website ISO 50001 certifications 	<ul style="list-style-type: none"> Selected companies are willing to have (pre-) audits and EnMS implemented

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
and demonstrated			in 60 companies		
	19) Status of in-depth assessment conducted (<i>output 5.2</i>)	<ul style="list-style-type: none"> • N.A 	<ul style="list-style-type: none"> • Detailed energy audits in 50 companies 	<ul style="list-style-type: none"> • Case studies • Audit reports and feasibility studies • Project progress report 	<ul style="list-style-type: none"> • Selected companies are willing to have detailed audits
	20) Demonstration projects designed and developed (<i>outputs 5.2</i>)	<ul style="list-style-type: none"> • EE technologies are implemented in some sectors, but needs to be demonstrated to a wider audience of large and especially SMEs 	<ul style="list-style-type: none"> • Demo activities designed and implemented targeting at 30 medium to large enterprises The associated energy and CO₂+ savings are given in indicator A) and B) • Info exchange about demos 	<ul style="list-style-type: none"> • Case studies • Design and financial plans • Monitoring reports • Project progress report • Project website 	<ul style="list-style-type: none"> • Selected companies are willing to investment in EE improvements, based on investment-grade feasibility analysis • Macro-economic environment is conducive for investments by private sector

Annex 4 – Assistance Agreement

UNITED NATIONS DEVELOPMENT PROGRAMME



UNDP

UNDP/LEG/SBA/97

14 April 1987

To: Participating and Executing
Agencies of UNDP

From: Eugene Youkel *E. Youkel*
Deputy Assistant Administrator
Bureau for Finance and Administration

Subject: Agreement between the Government of the Arab Republic of
Egypt and the United Nations Development Programme concerning
assistance by UNDP to the Government

1. Attached is a copy of the Standard Basic Assistance Agreement between the Government of Egypt and UNDP. The Agreement was signed on 19 January 1987 by the Deputy Minister of Foreign Affairs on behalf of the Government and by the UNDP Resident Representative on behalf of the Programme.
2. Article XIII, paragraph 1, of the Agreement provides for it to enter into force upon signature, subject to ratification. Pending such ratification, the Agreement shall, as customary, be given provisional effect by the Parties.

Annex 5 – Memorandum of Understanding between GEF and UNIDO

MEMORANDUM OF UNDERSTANDING

between

**UNITED NATIONS INDUSTRIAL DEVELOPMENT
ORGANIZATION**

and

**THE SECRETARIAT OF
THE GLOBAL ENVIRONMENT FACILITY**

on

DIRECT ACCESS TO GEF RESOURCES

July 20, 2004

MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING, dated July 20, 2004, between the SECRETARIAT OF THE GLOBAL ENVIRONMENT FACILITY (respectively, "the Secretariat" and "GEF") and the UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION ("UNIDO").

WHEREAS, pursuant to paragraphs 20(f) and 28 of the *Instrument for the Establishment of the Restructured Global Environment Facility* ("the Instrument"), the Council of the GEF (the "Council") has the authority to approve and periodically review operational modalities for the GEF, including means to facilitate arrangements for project preparation and execution by multilateral international organizations;

WHEREAS, effective May 7, 1999, pursuant to such authority, and on the basis of document GEF/C.13/3, *Expanded Opportunities for Executing Agencies*, the Council approved a proposal to allow for the participation of regional development banks in the preparation of GEF projects and for their direct access from the Chief Executive Officer/Chairperson of the GEF (the "CEO") to certain Project Preparation and Development Facility ("PDF") resources, namely PDF-B resources (the "Expanded Opportunities Decision");

WHEREAS, effective May 11, 2000, on the basis of document GEF/C.15/4, *Review of Progress in Expanded Opportunities for Executing Agencies*, the Council also approved the participation of UNIDO in the preparation of GEF projects and for its direct access to PDF-B resources pursuant to the Expanded Opportunities Decision;

WHEREAS, effective May 11, 2001, on the basis of document GEF/C.17/4, *Initial Guidelines for Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants*, the Council approved the direct access of UNIDO to GEF resources for expedited enabling activities on persistent organic pollutants;

WHEREAS, following the above-mentioned Council decisions, the Secretariat and UNIDO entered into a Letter Agreement and Memorandum of Understanding dated July 12, 2001, concerning the manner in which UNIDO would request such GEF resources from the Secretariat and the respective duties and responsibilities of the Secretariat and UNIDO with respect to allocations of such resources made to UNIDO;

WHEREAS, effective November 21, 2003, and pursuant to the powers granted to it under paragraph 20(f) of the Instrument, and on the basis of document GEF/C.22/12 *Review of Experiences of Executing Agencies under Expanded Opportunities*, the Council approved a proposal to expand direct access of all executing agencies, acting within their agreed scope for GEF operations, to GEF resources to include, (i) direct access to allocations of GEF resources from the Council and the CEO for the implementation of GEF projects (medium and full size projects); and (ii), on a case-by-case basis, allocations from the CEO of certain PDF resources, namely "PDF-A" grants (the "Executing Agencies Direct Access Decision"); and

WHEREAS, the Secretariat and UNIDO now desire to replace the Letter of Agreement and Memorandum of Understanding of July 12, 2001 with a new Memorandum of Understanding which will govern the manner in which UNIDO will seek allocations of GEF resources for the preparation and implementation of GEF projects from the Council and the CEO, as appropriate, and the respective duties and responsibilities of the Secretariat and UNIDO with respect to allocations of such resources made to UNIDO (the "MOU").

NOW, THEREFORE, the Secretariat and UNIDO agree as follows:

ARTICLE 1

Definitions

Section 1.01. Unless the context otherwise requires, the several terms defined in the Preamble to this MOU shall have the respective meanings set forth therein and the following additional terms shall have the following meanings:

- (a) "Allocation" means the GEF resources approved by the Council or the CEO, as appropriate, as allocable to UNIDO on the basis of a Project Document;
- (b) "Executing Agencies" means the executing agencies who implement GEF Projects under the Expanded Opportunities Decision and/or the Executing Agencies Direct Access Decision;
- (c) "Financial Procedures Agreement" means the Financial Procedures Agreement between UNIDO and the International Bank for Reconstruction and Development as Trustee of the Global Environment Facility Trust Fund, dated as of the date hereof;
- (d) "GEF Project" means a project, project component(s) or project preparation activities for which GEF funding has been approved;
- (e) "GEF Trust Fund" means the Global Environment Facility Trust Fund established in accordance with the Instrument;
- (f) "Major Changes" has the meaning assigned to the term in Annex D of Document, GEF/C.22/Inf.9, *GEF Project Cycle: An Update*;
- (g) "Project Document" means a document submitted by UNIDO to the Secretariat seeking approval of an allocation of GEF resources to UNIDO from the Council or the CEO, as appropriate, for a project, project component(s) or project preparation activities that promote(s) achievement of the purposes of the GEF;

- (h) "Trustee" means the International Bank for Reconstruction and Development acting as Trustee of the GEF Trust Fund in accordance with paragraph 8 and Annex B of the Instrument; and
- (i) "UNIDO/GEF Fund" means the fund established and maintained by UNIDO in accordance with the terms of the Financial Procedures Agreement, for purposes of receiving, holding and administering GEF funds.

ARTICLE II

General Principles

Section 2.01. All provisions of this MOU shall be interpreted and carried out in accordance with the Instrument and policies and decisions of the Council and the Constitution of the United Nations Industrial Development Organization, and in a manner consistent with the regulations and rules, guidelines, directives and procedures of the Secretariat and UNIDO.

Section 2.02. If any decisions or guidance referred to under section 2.01 are inconsistent with the pertinent policy or practice of the GEF or UNIDO, the Secretariat and UNIDO shall promptly take all appropriate actions to resolve any such inconsistency.

ARTICLE III

Administration of GEF Funds

Section 3.01. From time to time UNIDO shall submit proposals to the Secretariat seeking the allocation of GEF resources to UNIDO for projects or project preparation activities that promote achievement of the purposes of the GEF. Each proposal shall be set out in a Project Document, in a form agreed between the Secretariat and UNIDO, which shall contain a description of the activities to be funded by the GEF, a specific budget for such activities and a proposed Allocation amount.

Section 3.02. The proposals submitted by UNIDO to the Secretariat shall be reviewed by the Secretariat and forwarded to the Council or the CEO, as appropriate, for approval in accordance with GEF policies and practices. Any proposal approved by the Council shall be submitted as a final project proposal by UNIDO to the CEO for endorsement before final project approval by UNIDO. The final Allocation amount to be provided to UNIDO for each proposal shall be the amount specified in the final project proposal approved or endorsed, as appropriate, by the CEO.

Section 3.03. All Allocations shall be denominated in US Dollars. GEF resources received by UNIDO pursuant to this MOU may be freely converted by UNIDO into any other currency as may facilitate their disbursement.

Section 3.04. The commitment and transfer of funds to UNIDO pursuant to this MOU shall be effected in accordance with the terms of the Financial Procedures Agreement.

Section 3.05. GEF funds made available to UNIDO in respect of each Allocation shall be disbursed by UNIDO in accordance with UNIDO's standard rules and procedures.

Section 3.06. Notwithstanding the amount specified for a specific budget line item set out in a Project Document approved by the Council or the CEO, as appropriate, for a given Allocation, UNIDO may reallocate funds provided for a specific budget line item under a given Allocation among the categories of items to be funded by such Allocation in accordance with UNIDO's standard procedures so long as such reallocation does not effect Major Changes to the GEF Project for which the Allocation is provided. UNIDO shall inform the Secretariat of any such modifications in accordance with the GEF's operational policies and procedures.

Section 3.07. In the event that any proposed modification to the specific budget set out in an approved Project Document is likely to effect Major Changes to the GEF Project for which the Allocation is provided, UNIDO shall inform the Secretariat of any such proposed modification and seek the Secretariat's guidance on the necessary steps to be taken to effect such proposed modification.

ARTICLE IV

Fees

Section 4.01. In accordance with the policies and procedures approved by the Council for the determination and payment of project cycle management services fees payable to the Executing Agencies, as such policies and procedures may be amended from time to time and implemented by the Secretariat, UNIDO shall receive a fee for project cycle management services performed pursuant to this MOU.

ARTICLE V

Standard of Care

Section 5.01. UNIDO shall be solely responsible for the administration of GEF funds made available to it and will carry out such administration in accordance with its regulations and rules, standard practices and procedures and with the same degree of care as it uses in the administration of its own funds, taking into account the provisions of this MOU.

Section 5.02. UNIDO shall take all appropriate measures to ensure that each Allocation is used for the purposes for which it was provided, as set out in the pertinent Project Documents, and shall be accountable to the Council for all activities funded by the Allocations, including the preparation and cost-effectiveness of GEF Projects, and for the implementation of the operational

policies, strategies and decisions of the Council with respect to such activities.

ARTICLE VI

Procurement

Section 6.01. The procurement of goods and services (including consultants' services) for activities financed by the Allocations shall be done in accordance with UNIDO regulations and rules, policies, guidelines and procedures. The recording and reporting to the Secretariat on such procurement shall be done in a manner agreed between UNIDO and the Secretariat.

ARTICLE VII

Records and Reporting

Section 7.01. UNIDO shall provide the Secretariat with the following reports and financial statement on the UNIDO/GEF Fund prepared in accordance with UNIDO's accounting and reporting procedures:

- (a) annual report on status of GEF Projects in UNIDO's portfolio for the UNIDO/GEF Fund, substantially in the form of Attachment 1 attached hereto;
- (b) as soon as practicable after the termination of this MOU, a final audited financial statement for the UNIDO/GEF Fund; and
- (c) such other reports, including reports on procurement of goods and services for activities financed by the Allocation, as may reasonably be requested by the Secretariat from time to time.

The financial statement referred to in paragraph (b) above will be identical in form and content to the report to be furnished to the Trustee pursuant to Section 12.2 (f) of the Financial Procedures Agreement.

Section 7.02. UNIDO shall provide the Monitoring and Evaluation Unit of the GEF with such reports as may reasonably be requested by such unit from time to time.

ARTICLE VIII

GEF Activities

Section 8.01. UNIDO shall be solely responsible for:

- (a) Ensuring that the documentation (including but not limited to Project Documents) submitted by UNIDO to the Secretariat for review and/or approval meet GEF requirements, including consistency with the GEF's operational policies and procedures and the form required by the Secretariat;
- (b) Ensuring that the development, preparation, implementation, monitoring and evaluation of the activities financed by the Allocations are consistent with the GEF's operational policies and procedures, particularly those concerning eligibility criteria, the estimation of incremental costs, the definition of global benefits, the GEF project cycle, including project monitoring and evaluation, and the policy for stakeholder participation and disclosure of information;
- (c) Preparing UNIDO's Project Documents for consideration by the Secretariat and approval by the Council or the CEO, as appropriate;
- (d) Administering and managing the use of funds provided to it pursuant to this MOU;
- (e) Supervising activities performed under approved Project Documents;
- (f) Reporting to the Secretariat in accordance with Article VII hereof; and
- (g) Informing the Secretariat of any conditions it believes may interfere with its performance of its obligations under this MOU or the implementation of any activities due to be performed under any Project Document.

Section 8.02. At the request of UNIDO, the Secretariat shall provide guidance to UNIDO on GEF's operational policies and procedures and forms so as to assist UNIDO in the discharge of its responsibilities under Section 8.01.

ARTICLE IX

Consultation

Section 9.01. UNIDO and the Secretariat shall consult and share information with each other from time to time and at the request of either party on matters arising out of this MOU.

ARTICLE X

Communications

Section 10.01. All communications concerning this MOU shall be made to the relevant person at the address, facsimile number, telephone number or electronic mail address, from time to time designated by that party to the other for that purpose. The address, facsimile number, telephone number and electronic mail address so designated are set out below.

(a) For UNIDO:

United Nations Industrial Development Organization
Vienna International Centre
P.O. Box 300
A-1400 Vienna
Austria

Attention: Managing Director, Programme Development and Technical
Cooperation Division

Telephone: +43 (1) 26026-3510
Fax: +43 (1) 26026-6853
Electronic mail: a.rwendeire@unido.org

(b) For the Secretariat:

Global Environment Facility
1818 H Street, N.W.
Washington, D.C. 20015
USA

Attention: Deputy Chief Executive Officer

Telephone: +1 (202) 473 1075
Fax: +1 (202) 522 3240/3245
Electronic mail: kking@thegef.org

ARTICLE XI

Amendment

Section 11.01. This MOU may be amended at any time by the written agreement of UNIDO and the Secretariat.

ARTICLE XII

Termination

Section 12.01. This MOU may be terminated by UNIDO or the Secretariat. This MOU shall cease to be in force sixty (60) days after either party gives to the other written notice of its desire to terminate the MOU.

Section 12.02. Upon the giving of such notice, unless otherwise agreed between them, UNIDO and the Secretariat shall consult on the most practical and effective means of terminating any uncompleted activities to be implemented under approved Project Documents. In the event the MOU is terminated, UNIDO shall continue to hold GEF funds provided pursuant to approved Project Documents until all outstanding commitments and liabilities incurred for the activities financed by GEF resources allocated to UNIDO have been satisfied. Following the satisfaction of such commitments and liabilities, UNIDO shall return any unused GEF funds to the Trustee in accordance with the terms of the Financial Procedures Agreement.

Section 12.03. Any dispute arising out of or in connection with this MOU or any Project Document(s), which cannot be settled by agreement of the Secretariat and UNIDO officials shall be referred to the CEO and the Director General of UNIDO for joint clarification and resolution. If the CEO and the Director General of UNIDO cannot arrive at a resolution, the CEO, in consultation with the Trustee, when appropriate, shall inform the Council and seek the Council's advice with respect to a resolution. The CEO shall invite UNIDO to participate in any Council meeting at which the resolution of any such dispute will be discussed.

ARTICLE XIII

Effectiveness

Section 13.01. This MOU shall be effective as of the date aforementioned on the first page of this MOU, and shall supersede and replace the Letter Agreement and the Memorandum of Understanding incorporated thereto between UNIDO and the Secretariat, dated July 12, 2001.

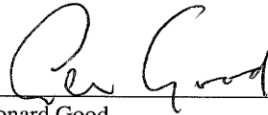
ARTICLE XIV

Execution in Counterparts

Section 14.01. This MOU may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

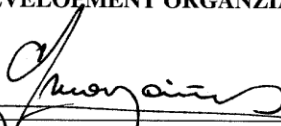
IN WITNESS WHEREOF, the undersigned, being duly authorized thereto, have signed this MOU with effect from the date aforementioned on the first page of this MOU.

**SECRETARIAT OF THE GLOBAL
ENVIRONMENT FACILITY**



Leonard Good
CEO/Chairman

**UNITED NATIONS INDUSTRIAL
DEVELOPMENT ORGANIZATION**



Carlos Magariños
Director-General

Attachment 1

Annual Report on Status of GEF Projects in UNIDO's Portfolio for the UNIDO/GEF Fund

Table 1		Standard Information							Information Provided by Agency				
For ORGP		Agency Name	Agency Country	Project Name	Project Type	Project Focal Area	Project Approval Date (Council/ CEO)	Project Approval Amount (Council/ CEO)	CEO Endorsement Date (FP and Non Expedited)	Endorsed Amount (FP and Non Expedited)	Agency Approval Date	Project Description	Implementation Status
GEF ID	PMIS ID												
Table 2		Disbursements											
GEF ID	PMIS ID	Agency Name	Agency Country	Project Name	Project Type	Project Focal Area	Project Approval Date (Council/ CEO)	Project Approval Amount (Council/ CEO)	CEO Endorsement Date (FP and Non Expedited)	CEO Endorsed Amount (FP and Non Expedited)	Agency Approval Date	Disbursement (Current FY)	Disbursement (Cumulative)
Note:		The following terms have the following meanings:											
		ORGP: Operational Report for GEF Projects; PMIS: Project Management Information System;											
		FP: Full-Sized Projects.											

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