



## 1. Project Data

<b>Project ID</b> P116194	<b>Project Name</b> EG-Giza North Power Project	
<b>Country</b> Egypt, Arab Republic of	<b>Practice Area(Lead)</b> Energy & Extractives	<b>Additional Financing</b> P116198
<b>L/C/TF Number(s)</b> IBRD-78950,IBRD-81000	<b>Closing Date (Original)</b> 30-Jun-2015	<b>Total Project Cost (USD)</b> 686,733,706.29
<b>Bank Approval Date</b> 08-Jun-2010	<b>Closing Date (Actual)</b> 31-Dec-2017	
	<b>IBRD/IDA (USD)</b>	<b>Grants (USD)</b>
Original Commitment	600,000,000.00	0.00
Revised Commitment	686,733,706.29	0.00
Actual	686,733,706.29	0.00
<b>Prepared by</b> Natsuko Toba	<b>Reviewed by</b> Fernando Manibog	<b>ICR Review Coordinator</b> Ramachandra Jammi
		<b>Group</b> IEGSD (Unit 4)

## 2. Project Objectives and Components

### a. Objectives

The Project Development Objectives (PDO) were to contribute to improving the security and efficiency of electricity supply within the Borrower's territory by adding new generation capacity based on efficient thermal power generation technology (Loan Agreement, November 4, 2010, page 5).

The project outcome targets were increased in line with the financing of additional capacity of the electricity supply infrastructure. This supports a decision not to apply a split rating since the project would be assessed based on the revised outcomes and outcome targets.



**b. Were the project objectives/key associated outcome targets revised during implementation?**

Yes

**Did the Board approve the revised objectives/key associated outcome targets?**

Yes

**Date of Board Approval**

14-Feb-2012

**c. Will a split evaluation be undertaken?**

No

**d. Components**

The PAD did not organize the project activities by component numbers, which were largely consisted of an investment component and a technical assistance component.

Investment component

Giza North power plant (Appraisal US\$1,366.1 million; Actual US\$1,366.6 million): Development and construction of a 1,500-megawatt (MW) combined cycle gas turbine (CCGT) power plant using natural gas as the main fuel and light diesel oil as a back-up at Giza North near Cairo. The plant would be owned and operated by the Cairo Electricity Production Company (CEPC), a subsidiary of Egyptian Electricity Holding Company (EEHC).

Transmission lines to connect the plant to the national transmission grid (Appraisal US\$36 million; Actual US\$14.4 million):

Gas pipeline to connect the plant to the gas pipeline system for fuel supply. (Appraisal US\$10 million; Actual US\$316 million):

Technical assistance component

Technical assistance (Appraisal US\$0.55 million; Actual US\$0.55 million): (a) promotion of private sector investment in electricity generation; (b) development of a power sector strategy focusing on attracting additional private investment and associated tariff and other policies to facilitate efficient financing of investment needs; and (c) promotion of energy efficiency demand side management (DSM).

**e. Comments on Project Cost, Financing, Borrower Contribution, and Dates**



### Project Cost

At appraisal, an estimated total project cost was US\$1,412.65 million. The actual total project cost was US\$ 1,697.55 million. This 20 percent increase from the appraisal was for financing of additional gas pipelines.

### Financing

At appraisal, an original loan of US\$600 million was approved in 2010. Additional financing of US\$240 million was approved in 2012. Hence, the total approved IBRD loan was US\$840 million. By the project closing date, US\$686.73 million was disbursed. The undisbursed amount was to finance additional gas pipelines but due to the time constraints, was cancelled after the project closure. IBRD's financing share in the total project cost was 42 percent at appraisal and 40 percent at project closing.

At appraisal, two World Bank administered trust funds were expected to finance the technical assistance (TA). The two trust funds were Energy Sector Management Assistance Program (US\$0.25 million) and Public Private Infrastructure Advisory Services (US\$0.1 million). A World Bank Budget (US\$0.16 million) was also expected to finance the TA. Actual financing amounts were not available.

At appraisal, the European Investment Bank (EIB) and the Organization for Petroleum Exporting Countries (OPEC) Fund for International Development (OFID) were to finance the power plant through parallel financing arrangements (PAD, page 14). EIB signed a loan of US\$417 million. OFID signed US\$30 million (EIB and OFID websites). At Additional Financing in 2012, EIB signed a loan of US\$66 million (EIB website). Actual financing amounts were not available.

### Borrower Contribution

At appraisal, a total borrower contribution was 34 percent of the total project cost or US\$475.11 million, including about US\$40,000 of mainly in-kind contributions. At Additional Financing in 2012, the borrower additional contribution was expected to be US\$293 million. Actual contribution was not available.

### Dates

The project was restructured three times. The first project restructuring included Additional Financing, approved on February 14, 2012 with closing date of June 30, 2016. This Additional Financing was to expand the scale of investment component, by adding power plant capacity, transmission lines, gas pipelines, two implementing agencies (ordinarily, one implementing agency) and updating the result framework. The expansion was needed by (i) acute electricity shortages in the summer of 2010; and (ii) difficulties in initiating other power projects due to the political crisis (Egyptian crisis and Arab Spring).

The second restructuring on March 24, 2015 was to extend the original loan's closing date from June 30, 2015 to June 30, 2016 to complete the project activities (Restructuring Paper, March 4, 2015). The closing date extensions were required due to (i) delays in the delivery and installation of key equipment for the



power plant affected by the social and political situations since 2011 and (ii) the longer time than expected in land acquisition and compensation for the gas pipeline routing.

The third restructuring on February 15, 2016 included (i) closing date extensions of the original loan from June 30, 2016 to March 31, 2017 and the Additional Financing from the original closing date of December 31, 2016 to December 31, 2017, (ii) reallocation the project savings of up to US\$206 million to procure goods for the new gas pipeline connections to connect power plants to the gas network and (iii) update the result framework. The saving was from various factors: (i) changes in exchange rate, (ii) comfort of the Bank's loan for vendors, (iii) overestimated project costs, (iv) procurement and management of the contract that helped reduced the costs of building the power plant (the cost per MW came in about one third lower than anticipated), (v) economies of scale in building a larger plant, (vi) about 15 percent contingencies built into the initial forecast prices which did not occur, and (vii) a general decline in costs of CCGT power equipment which occurred while the contract was being prepared.

### 3. Relevance of Objectives

#### Rationale

The PDO remained relevant to and consistent with the World Bank Group (WBG) Egypt Country Partnership Framework (CPF) for FY2015-2019. The project was included in the WBG program to achieve CPF Objective 2.2: Increased energy generation capacity and energy efficiency. As per CPF, given that almost all households were being supplied with electricity from the grid and rapid energy demand growth was expected, unreliable energy supply would significantly affect the country. Among solutions supported by the WBG under the CPF was to increase supply and reliability of electricity to meet the demand, including through private sector participation as well as public-private partnerships. The CPF noted the Government of Egypt (GoE)'s focus on improving the supply of energy and on enhancing energy security. The project supported the CPF and the GoE by building the domestic natural gas-fired CCGT as baseload, which was more efficient than open cycle gas turbine or steam plant, and also by promoting private investment in generation and energy efficiency. At appraisal, the PDO was relevant to and consistent with the World Bank Country Assistance Strategy (CAS) for FY2006-2009, especially outcome 2.2 on Increased supply and improved efficiency of infrastructure services.

The PDO remained relevant to the Egyptian Government's Sustainable Development Strategy: Egypt's Vision 2030. Its relevant energy strategic objectives to 2030 included (i) ensuring energy security, (ii) reducing the intensity of energy consumption and (iii) limiting the environmental impact of the sector's emissions.

The PDO remained relevant to the country context. As of July 2018, the GoE was continuing a comprehensive energy sector reform to improve the financial position of the sector and raise its efficiency. The below-the-cost energy pricing (except natural gas) was economically inefficient and not well-targeted, benefitting the well-off disproportionately rather than the poor. It encouraged excessive energy consumption,



avored capital-intensive activities, deterred private investment in the sector and resulted in a heavy fiscal burden. The financial performance of the sector had been further undermined by weak governance and a high cost structure. The GoE's objective was to modernize the industry and put it on a sound financial footing to ensure uninterrupted and efficient energy supply to businesses and households. It raised electricity tariffs by an average of 30 percent in July 2016, by another 40 percent in July 2017 and further by 26 percent on July 1, 2018. The ongoing energy subsidy reform continued to be a key in fiscal consolidation. The fuel subsidy bill had decreased from 3.3 percent of gross domestic product (GDP) in 2016/17 to a projected 2.7 percent of GDP in 2017/18. Electricity subsidies are projected to decline from 0.7 percent of GDP in 2017/18 to 0.3 percent in 2018/19, and to be fully eliminated by 2020/21. The enhanced and higher domestic production of oil and gas with more efficient electricity plants, such as the project's CCGT, and higher reliance on renewables would bring down costs of various fuel products and electricity and contribute to limiting the fiscal burden.

### Rating

High

## 4. Achievement of Objectives (Efficacy)

### Objective 1 Objective

Improving the security of electricity supply.

### Rationale

Theory of change covering both Objectives 1 and 2: From a technical perspective, building of the CCGT and gas pipelines for other eight power plants will credibly lead to improving the security of electricity supply because the power is generated from domestic fuels (natural gas and diesel as back up). It will also credibly lead to improving the efficiency of electricity supply because the exhaust heat that would otherwise have been lost is re-used in the steam turbine to generate additional electricity. At appraisal, electricity demand was growing quite rapidly in Egypt, having increased 7.5 percent a year between fiscal years (FY) 2003 and 2008.

### Outputs

- 2,250 MW CCGT capacity was built, thus achieving the target from a baseline of zero.
- Sixty percent of the planned gas pipelines were constructed, thus missing the full target, from a baseline of zero percent. Procurement of pipelines that would connect six of the eight power plants was completed by the project closing date. The other two were dropped. The unused funds were to be used to reinforce weak



pipelines and to build an additional line to one of the plants. The latter did not materialize due to time constraints.

- One hundred percent of the planned transmission lines were constructed, thus achieving the full target, from a baseline of zero.
- TA was provided to promote private sector investment in electricity generation and develop a power sector strategy to attract additional private investment, as well as a tariff regime and policies to facilitate efficient financing.
- TA was provided on energy efficiency (EE), consisting mostly of studies on institutional arrangements focused on demand side management (DSM) and some supply side EE. They were well disseminated, received and accepted by the GoE.

### Outcomes

- By December 2017, the annual net electricity generation of the project's 2,250 megawatt (MW) CCGT was 14,686 gigawatt hours per year (GWh/year), which was seven percent less than the target of 15,750 GWh/year. The baseline was zero. As per the ICR, the project's Giza North CCGT had the ability to meet the target but it could not generate the targeted amount due to Egypt using a variant of merit order dispatch with most/all plants running some of the time. Per EEHC Annual Report 2016/2017, the Giza North CCGT accounted for five percent of Egypt's total power plant capacity in the national grid, seven percent of total net generation in national grid, and 30 percent of CEPC's net generation in FY2017.
- The six gas pipelines (four completed by the project closing date) that were being built would supply gas to six, mostly CCGT power plants with 16,150 MW or an equivalent of 36 percent of installed capacity in the national grid in FY2017. These plants can easily generate over 70,000 GWh per year or an equivalent of 38 percent of the net generation in the national grid in FY2017 as needed to increase the security of supply (EEHC Annual Report 2016/2017).
- Two rounds of auctions of renewable licenses for power generation to private investors were successful with the third round underway, which would add power capacity to improve the security of electricity supply. New private renewable energy-based power plants were under construction, which would improve the security of supply in terms of reducing the fossil fuel dependency of power generation.
- TA for energy efficiency (EE) DSM did not realize clear results by the project closing date because the project implementation was impacted by the instability in Egypt. However, as of August 2018, results from the TA were making their way into policy and contributing to the security of electricity supply by reducing the peak load demand (at least in the future). Energy reform started in 2014 and resulted in increased energy prices and gradual elimination of subsidies (to which the project potentially contributed indirectly). DSM started to attract more attention mainly with energy efficient compact fluorescent lamps (CFL), light emitting



diodes (LED) and heating-ventilating and air conditioning (HVAC). Other donors (e.g., European Union, etc.) also contributed to the promotion of DSM, according to the Bank task team.

**Rating**  
Substantial

## **Objective 2**

### **Objective**

Improving the efficiency of electricity supply.

### **Rationale**

Outputs are the same as in the objective 1.

### Outcomes

- Average thermal net efficiency of the project's CCGT plant achieved 54.5 percent in December 2017, exceeded the target of 52 percent by five percent (i.e.,  $(54.5-52)/52$ ). No baseline was available. As per EEHC Annual Report for 2016/2017, the Giza North CCGT was the most efficient power plant of the CEPC and the sixth most efficient plants in the national grid.
- The average net thermal efficiency of the CCGT, gas turbine and steam plants for which the project financed the gas pipelines as per EEHC Annual Report 2016/2017 were the following: New Capital CCGT 40.4 percent, Burullus CCGT 36.9 percent, Six October CCGT 31 percent, Beni-Suef CCGT 36.9 percent, Mahmoudia gas turbine 29.8 percent and Suez Steam 39.8 percent. The efficiency reflects the ambient conditions at the specific plant site. No targets of expected efficiency of these plants were available to assess whether these plants were efficient or not.

**Rating**  
Substantial

### **Rationale**

The project added a CCGT that efficiently supplied electricity (achieved 54.5 percent in December 2017) and enabled the other power plants, mostly CCGT, to supply power. These CCGTs were running on domestic natural gas, which contributed to energy security.





## Overall Efficacy Rating

Substantial

### 5. Efficiency

#### Ex-Ante Analysis

A screening analysis of CCGT, open cycle gas turbine and supercritical steam plants showed that the CCGT proposed for Giza North under the project had the lowest base load generation cost in Egypt. The analysis verified that the expected timing of the Giza North CCGT to become operational matched the time EEHC would need incremental power supply.

A cost benefit analysis of Giza North CCGT was conducted. The analysis of the project covered 91 percent of the project. The economic costs were the power plant, connecting the plant site to the national gas supply network and the national electricity transmission network, transmitting and delivering electricity from the Giza North plant, providing consumer related services, and incurring technical losses of energy in the power network. The economic benefits were the willingness to pay by Egyptian electricity consumers in electricity consumption from the time that the Giza North project starts to generate electricity. A net present value (NPV), calculated at a 10 percent discount rate as an estimated opportunity cost of capital in Egypt, was US\$726 million and the economic rate of return (EIRR) to the project was 14.4 percent, for 25 years.

#### Ex-Post Analysis

The analysis used the same methodology as the ex-ante analysis. The ex-post analysis covered 93 percent of the project costs. The analysis assumed that the alternative to natural gas was to supply those other plants with light fuel oil and therefore the main benefit of the pipelines was the difference in generating cost from using gas rather than light fuel oil. The resulted EIRRs was over 100 percent and NPV was over US\$10 billion. Given these high ERRs, these gas supply pipelines were highly economically efficient. These gas pipelines, which supply the major power plants with natural gas rather than much more expensive light fuel oil, were a major benefit to the Egyptian economy saving over US\$1.6 billion per year in fuel costs in 2017 US\$ prices). This high EIRR was also due to lower costs for building the power plant than anticipated given its capacity. The original cost estimate in the PAD including taxes, customs and contingencies was US\$911 per kilowatt (kW) of capacity, compared to the actual US\$607 per kW, both in nominal prices. The analysis including only the power plant resulted an EIRR of 18.7 percent and an NPV of US\$1.86 billion.

#### Implementation efficiency

The project saving was efficiently utilized to scale up the project to increase the benefits. The Arab Spring and land acquisitions largely affected the project implementation to extend the closing date by total 1.5 years from





the original five-year project. During the instability in Egypt, the project nonetheless continued. Overall, the implementation efficiency was substantial.

**Efficiency Rating**

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	14.40	91.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	100.00	93.00 <input type="checkbox"/> Not Applicable

\* Refers to percent of total project cost for which ERR/FRR was calculated.

**6. Outcome**

Relevance of objectives is high. Efficacy is substantial. Efficiency is substantial. Overall outcome is satisfactory.

**a. Outcome Rating**

Satisfactory

**7. Risk to Development Outcome**

The financial risk due to low tariffs is modest. The Government has committed to keeping tariffs high enough to fully cover electricity supply costs, thereby ensuring the security of power supply. The technological risk is modest as the CCGT has been an established technology and many CCGT plants have been operating in Egypt. As of July 2018, external risks have increased. Tightening global financial conditions have contributed to a pullback by investors from emerging markets, which could limit the potential private sector finance in power generation. The risk to deterioration of security situation would disrupt the electricity sector operations and/or investments. The sector-adjustment fatigue could weaken the sector reform momentum. These risks are mitigated by the authorities’ strong record of reform implementation and a sound macroeconomic policy framework. These risks also highlight the need to broaden and accelerate structural reforms to sustain private sector-led growth that will absorb the rapidly growing labor force and ensure that the benefits are perceived more widely.



## **8. Assessment of Bank Performance**

### **a. Quality-at-Entry**

The project's strategic relevance and approach were consistent with the CAS for 2006-2009's outcome 2.2 "Expanded supply and improved efficiency of infrastructure services". Under the outcome 2.2, the Government would facilitate the private sector investment with the strategic public infrastructure investments, such as electricity generation, and policy and institutional changes, and the WBG would support these investments through technical and financial assistance. The project was designed to support public investment in efficient CCGT to help mitigate the shortage of electricity supply and provide TA to promote the private sector investment in power generation and the energy efficiency. The project design was simple technically and structurally including only an investment in a CCGT power plant with transmission lines and gas pipelines and TA. Implementation arrangements were clear and involved one implementing agency. Conditionality was kept to a minimum to ensure that the project could proceed rapidly. The appraisal overlooked a risk of a dewatering problem for the power plant, which lasted for 13 months.

**Quality-at-Entry Rating**  
Moderately Satisfactory

### **b. Quality of supervision**

The Bank team's supervision of project implementation was adequate and continued during the difficult period of the political transition. The effective supervision was partly due to the task team leader (TTL) and other team members being based in Egypt and their good relations with EEHC, Giza North Plant management and Egyptian Natural Gas Company (GASCO). The Bank appropriately supported the project's Additional Financing and restructuring to ensure and increase the project efficacy and efficiency, such as increasing the capacity of the CCGT to help mitigate the power shortage when some of the planned power plants were falling behind schedule, and adding more transmission lines and gas pipelines.

**Quality of Supervision Rating**  
Satisfactory

**Overall Bank Performance Rating**  
Satisfactory



## 9. M&E Design, Implementation, & Utilization

### a. M&E Design

An intermediate outcome “Financial position of EEHC” was beyond the project’s control and attribution would be limited because the project activity was only part of EEHC’s operations and the project did not have any direct activities to support financial position of the EEHC. The monitoring and evaluation (M&E) design and arrangements were institutionally embedded in EEHC (some of them would be reported in the EEHC annual reports) and all indicators were collected and reported by EEHC.

### b. M&E Implementation

At the Additional Financing, the last year of target value was revised to 2015, which was aligned with the closing date of the original project (June 30, 2015) but was before the Additional Financing’s closing date (December 31, 2016). The status of construction was reported regularly and could be easily monitored physically by going to the Giza North Power Plant site. Cost overruns or underruns were estimated as construction progressed. Unexpected issues, such as the dewatering issue, were identified relatively rapidly. Monitoring of the construction of the gas pipelines to other power plants was more difficult since these were scattered around the country and the pipelines were tied to the progress in completing the plants to which they supplied natural gas. Nevertheless, overall progress was reported regularly. The information from M&E was reported regularly to management in Implementation Status and Results Reports (ISRs), Aide Memoires and emails.

### c. M&E Utilization

M&E was used to discuss the progress of the power project with EEHC, CEPC and Giza North Power Plant Management. The effective utilization of the M&E data on construction of the gas pipelines supplying other power plants was constrained due to the Bank’s limited leverage on these pipelines since the main projects, the gas-fired power plants, were not Bank-financed.

### M&E Quality Rating

Substantial

## 10. Other Issues

### a. Safeguards



The project was classified as category A under OP/BP 4.01 (Environmental Assessment). Major potential impact was air quality from stack emission, especially nitrogen oxides (NOx). The gas turbine units would be equipped with low-NOx combustors to minimize the emission. Other environment impacts were expected to be insignificant. A full Environmental and Social Impact Assessment (ESIA) report was prepared, including an Environmental and Social Management Plan (ESMP). The Bank policy on Involuntary Resettlement (OP/BP 4.12) was also triggered, which was associated with about 20 kilometers (km) of proposed new transmission lines and new gas pipeline connecting the Giza North power plant. Most of the routing pathways were on uninhabited, desert land or along the existing right-of-way, which were state owned. However, since the exact location of all the sections of the transmission line and the gas pipeline were not yet known at appraisal, a Resettlement Policy Framework (RPF) was prepared.

At Additional Financing, additional 750 MW unit triggered the policy on Projects on International Waterways (OP/BP 7.50). The Bank notified the riparian states along the River Nile on August 11, 2011 of the project and provided with them 30 days for comments, resulted in no comments received. On September 17, 2011, pursuant to the requirements of BP 7.50, and the Bank team's assessment that the proposed project activities would not cause appreciable harm to the other riparian states, the World Bank regional vice president approved processing of the negotiation package.

During the project implementation, the social and environmental safeguards issues were significantly more complex and difficult than expected. Initially, the main issues were related to power plant construction and the dewatering due to the incorrect ESIA and other grievances. The dewatering problem was remedied by providing some of the dewatering water back to the nearby farmers and better water pumps to the remote farmers or in a few cases paying compensation. Dewatering was repeatedly raised as an issue by the farmers. A request for the World Bank Inspection Panel to look at their concerns; signed by eight non-governmental organizations, 17 landowners and 18 farm laborers, was received by the Panel on February 21, 2013. The Panel went to Egypt and met with all parties involved. The Panel issued its Report and Recommendation on June 10, 2013 in less than four months after receiving the request. The Panel agreed that dewatering was a significant issue although they had doubts about some of the other issues lacking evidences. The Panel viewed that the evidence indicated that the Bank had complied with its Operational Policies and Procedures and that the serious problem of dewatering, identified by the requestors, was resolved and other issues were being resolved. Moreover, as a land acquisition issue arose with the Beni-Suef Plant to which project financed the gas pipeline, a Livelihood Restoration Plan (LRP) was prepared and it was resolved.

Substantial number of reports remained unwritten on potential environmental and social issues especially after the Bank agreed to finance gas pipelines to several new power plants. Originally, nine Resettlement Action Plans (RAPs) were to be prepared for the gas pipelines. Only two of them have been completed by the project closure since the gas pipelines began late in the project's life after the 2016 project restructuring. The Bank needed to continue supervising the implementation of the remaining RAPs for pipelines under construction, although the project has already closed.

Social and environmental safeguards were complied with in this Category A Project (ICR, page 21).



**b. Fiduciary Compliance**

Procurement

EEHC performed well with procurement and management of the contracts. There was competitive procurement and tight management of the contracts with limited change orders and the final cost was substantially less than anticipated. EEHC commented favorably on the speed of procurement under this project relative to other projects it had undertaken. Nevertheless, during the final bidding by GASCO for steel plates, discrepancies between the bidding document and the fax of award led to a request for arbitration by one bidder. The dispute between both parties was resolved in June 2018 with an agreement between GASCO and the bidder.

Financial Management

Financial management was implemented smoothly with no major issues, as the Bank team worked well with financial staff from the project management unit (PMU) and EEHC, CEPC and Giza North management. All audits were unqualified.

**c. Unintended impacts (Positive or Negative)**

Not applicable.

**d. Other**

Not applicable.

**11. Ratings**

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	---
Bank Performance	Satisfactory	Satisfactory	---
Quality of M&E	Substantial	Substantial	---
Quality of ICR		Substantial	---



## 12. Lessons

The following three broadly applicable lessons summarized from the six presented in the ICR with some paraphrasing:

- 1. An agile and flexible project can increase the project impact.** In this project, when the additional generating capacity was needed, the Bank and GoE responded by expanding an ongoing project more efficiently than starting a new one. A site was already provided and a labor force was in place. There were economies of scale.
- 2. Managing the environment and social framework can be a challenge for large facilities associated with a Bank project but were not financed by the Bank project.** As part of 2016 project restructuring, the project financed the gas pipelines for other power plants that were not financed by the project. The Bank team had to undertake substantial efforts for a small investment component to cooperate with the Government and GASCO on due diligence of large power plants as associated facilities. For new projects, the World Bank's new Environmental and Social Framework allows more flexibility on associated facilities.
- 3. Greatly expanding the scope of the project late in its life can create procedural problems.** In the case of the Giza North Project, the gas pipelines were added to the project in the Spring of 2016 with the loan for these lines due to close on December 31, 2017. Due to this delay in starting these pipelines and the lack of capacity in certain governmental units, the RAPs have been delayed and not all had been completed by the time of loan closure. Furthermore, the implementation of the RAPs needed to continue to be supervised even though the Bank had very limited leverage, since it provided only a small part of the cost of the various power projects, and the loan had already closed.

## 13. Assessment Recommended?

No

## 14. Comments on Quality of ICR

The ICR provides a detailed overview of most of the project. The narrative supports the ratings and available evidence. It is candid and generally aligned with project development objective. The report is focused on results. The ICR's lessons are clear, useful and based on evidence outlined in the ICR. Some information was missing in the ICR, such as the project's performance on the TA on energy efficiency and the policy on Projects on International Waterways (OP/BP 7.50) triggered at additional financing.



**a. Quality of ICR Rating**  
Substantial