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UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

EGYPT

POWER SECTOR SUPPORT

263-0215

PROJECT PAPER

AMENDMENT

Signed on 8/10/92

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add
 C = Change
 D = Delete

Amendment Number
4

DOCUMENT CODE
3

2. COUNTRY/ENTITY

Egypt

3. PROJECT NUMBER

263-0215

4. BUREAU/OFFICE

Near East

5. PROJECT TITLE (maximum 60 characters)

Power Sector Support

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY
02 28 91

7. ESTIMATED DATE OF OBLIGATION
 (Under "B:" below, enter 1, 2, 3, or 4)

A. Initial FY B 19 B. Quarter 4 C. Final FY 91

8. COSTS (\$000 OR EQUIVALENT \$1 = 3.35)

A. FUNDING SOURCE	FIRST FY <u>89</u>			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	\$136,000		\$136,000	\$431,000		\$431,000
(Grant)	(\$136,000)	()	(\$136,000)	\$431,000	()	\$431,000
(Loan)	()	()	()	()	()	()
Other						
U.S.						
Host Country		\$19,194	\$19,194		\$217,194	\$217,194
Other Donor(s)				\$637,000		\$637,000
TOTALS	\$136,000	\$19,194	\$155,194	\$1,068,000	\$217,194	\$1,285,194

9. SCHEDULE OF AID FUNDING (\$000)

A. APPRO- PRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECIL CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) ESF	740B	825		\$391,000		\$40,000		\$431,000	
(2)									
(3)									
(4)									
TOTALS				\$391,000		\$40,000		\$431,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code
 B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To support past and promote continued GOE progress in reducing electricity subsidies and in making other energy sector policy changes by providing capital infrastructure incentives to the GOE.

Donor Summary (000,000)	
ADB	350
Arab Fund	125
Saudia Fund	50
World Bank	<u>112</u>
	\$637

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY
1 0 90 1 0 91 1 0 16 91 7

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000 941 Local Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page FP Amendment.)

USAID/Egypt Controller concurs with the proposed methods of implementation and financing

Douglas L. Franklin
 Douglas Franklin
 AD/PM

17. APPROVED BY

Signature

Title

Henry H. Bassford
 Director

Date Signed

MM DD YY
8 15 91

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY



UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

CAIRO, EGYPT

ACTION MEMORANDUM FOR THE MISSION DIRECTOR

FROM: Robert Jordan, (A)AD/PDS 

SUBJECT: Project Paper Supplement
Power Sector Support Project
USAID Grant No. 263-0215
Fourth Amendment to Project Authorization

ISSUE

Your approval is required to increase the authorized life of project (LOP) funding for the subject project by \$40 million, i.e., from \$391 million to \$431 million.

BACKGROUND

The Power Sector Support Project, authorized on September 27, 1989, and subsequently amended on August 21, 1990, September 30, 1990, September 9, 1991, and February 12, 1992, consists of seven subprojects and has been funded in four tranches to date. The purpose of the project is to support past and promote continued GOE progress in reducing electricity sector subsidies and in making other energy sector policy changes by providing capital infrastructure incentives to the GOE. Project funding is approved in tranches contingent on satisfactory policy reform in the electricity energy sector.

The initial tranche of \$136 million was authorized on September 18, 1989, after a 30 percent average tariff increase in March 1989. The initial tranche provided for several capital subprojects which are described in the Project Paper (PP). Funding for the second tranche of \$115 million was authorized on June 13, 1990, after a 38 percent average tariff increase in May 1990. The second tranche provided for the financing of consultant technical services for the engineering and procurement requirements of a 1200 MW Thermal Power Station located at El Kureimat, including one or more equipment packages for unit 1. The second tranche also provided for the upgrading of the existing National Energy Control Center (NECC). These activities are described in the June 1990 PP amendment. Funding for the third tranche of \$100 million was authorized on June 27, 1991, after a 50 percent average tariff increase in May 1991. The third tranche financed the balance of consulting services for the El Kureimat Thermal Power Station including companion equipment packages for unit 2 and contingency/audit.

On November 7, 1991, the Egyptian Electricity Authority (EEA) notified USAID of its decision to utilize future USAID funding to provide sufficient funds to fully finance a shortfall in funding for the Cairo South subproject. The shortfall in funding represented a \$40 million advance on the planned FY 92 \$80 million fourth tranche of funding. An advance in the fourth tranche of funding was conditioned upon execution of a Memorandum of Understanding (MOU) by the responsible Ministers from the Government of Egypt (GOE). The MOU signed by the Minister of Electricity and Energy, the Minister of International Cooperation, and the USAID Mission Director on December 23, 1991, affirmed the GOE's intent to increase electricity prices by the second quarter of calendar year 1992 to result in an average price of electricity equal to 69 percent of the Long Run Marginal Cost as determined in a project-financed 1991 Electricity Pricing Strategy Study. The \$40 million advance in the fourth tranche of funding was authorized by the USAID/Egypt Mission Director on January 26, 1992.

CURRENT PROJECT STATUS AND THE PROPOSED AMENDMENT

The project consists of seven active subprojects, as follows:

<u>Subpr. No.</u>	<u>Name</u>	<u>Current Obl. (\$000)</u>
0215.01	Cairo South 150 MW Combined Cycle	117,100
0215.02	Cairo West 350 MW Modernization	29,340
0215.03	Hurghada Gas Turbine Relocation	8,670
0215.04	Microwave System Expansion	1,630
0215.05	Commodities, Studies, Tech. Assist.	19,260
0215.06	Kureimat 1,200 MW Power Plant	200,000
0215.07	Nat. Energy Control Center Upgrade	15,000
<hr/>		
Total Obl.		\$391,000

All subprojects are proceeding smoothly, with no insurmountable implementation problems.

In a letter dated June 15, 1992, and amended on July 14, 1992 (Tab 1), the Chairman of EEA requested an allocation of the balance of the fourth tranche funding (\$40 million) as summarized below:

PROJECT ACTIVITY	1992 FUNDS
1. Cairo West Rehabilitation	\$7.0
2. Microwave Expansion	\$1.0
3. Gulf of Suez Hydro Study	\$2.5
4. Project Monitoring Services	\$1.0
5. Sector Assessment	\$0.5
6. Cairo Regional Control Center	\$5.0
7. System Efficiency Improvements	\$5.0
8. High Dam Circuit Breakers	\$3.0
9. NECC Upgrading	\$15.0
	<hr/>
TOTAL (million)	\$40.0

1. Rehabilitation of the Cairo West Station is the second component of Power Sector Support Project. This subproject provides for the rehabilitation of the plant boilers, turbine generators, instrumentation and controls, and the addition of natural gas firing for the boilers. Being a rehabilitation project, the full needs of the rehabilitation work were not known until implementation of the project was underway. The additional \$7 million will fund (i) a new combustion air system, (ii) more comprehensive rehabilitation of the turbines and generators, (iii) new boiler feed pumps, and (iv) additional operational spare parts.
2. The fourth component of the Power Sector Support Project, the Microwave Expansion Subproject, is financing the expansion of the data collection capability of the National Energy Control Center (NECC) from the Ismailia and Suez City region. The original budget estimate for this activity was based in part on a microwave link routing proposed by EEA. In the course of the project consultant's physical design work, the EEA routing was determined to be infeasible. The additional \$1 million for this subproject is the amount estimated to cover increased construction costs associated with a new, technically feasible routing.
3. Items 3 - 8 above will be financed under the fifth component of the project: Commodities, Studies, and Technical Assistance.

Gulf of Suez Hydro Study. Phase 1 of this study is underway. DR/UAD has determined that the scope of this effort should be broadened to include the investigation of three additional sites. Also, provisions for a more comprehensive environmental assessment must be included. The estimated cost of these additions is \$2.5 million.

Project Monitoring Services. The allocation of an additional \$1 million for Project Monitoring Services will finance two

USPSC Electrical Engineers in the Mission's Power and Telecommunications Office for up to two years to assist in the implementation of the project.

Sector Assessment. The inclusion of \$0.5 million for a Sector Assessment will provide for a study of the management structure and decision making process which directly affects the EEA's ability to implement energy sector policy changes in support of continued GOE progress in reducing electricity sector subsidies.

Cairo Regional Control Center Design. Electrical network operations in the Cairo zone are increasing in complexity as the power network expands. The electrical energy demand in the Cairo zone was 34 percent of national demand in 1990. Within the Cairo zone, there are presently 76 power stations and substations in operation. The present Cairo Dispatch Center can not adequately respond to basic load operation requirements.

EEA is investigating the feasibility of a Cairo Regional Control Center (CRCC) project to introduce advanced technology to the monitoring and control system in the Cairo zone. The CRCC, when completed, will enhance network reliability, reduce outage times, improve monitoring services and increase management efficiency. The estimated cost of the CRCC is \$43 million and it is projected that three years will be required to complete construction and commissioning. The proposed \$5 million allocation in FY92 will finance consultant services to review and augment (as necessary) EEA's feasibility study and to prepare design studies, including draft procurement documents. Further USAID support for this project will be decided on the basis of the study results and funding availability.

System Efficiency Improvements. The allocation of \$5 million for system efficiency improvements will be for studies and limited equipment procurement directed toward future system improvements, such as rehabilitation of generating units, conversion to combined cycle operation, system peak shaving, and reduction in energy transmission losses.

High Dam Circuit Breakers. EEA has requested the allocation of \$3 million to fund a shortfall in funding under the Aswan High Dam Runner Replacement Project (263-1060) for the replacement of the 15kv generator breakers at the High Dam. The procurement of the breakers will be split-funded between the High Dam project and the Power Sector project.

4. The National Energy Control Center (NECC), the seventh component of the Power Sector Support Project, is a computer-based energy management system that monitors generating

stations and major transmission substations. These stations are scanned every three seconds and the collected data is analyzed. Adjustments in generator output, to maintain optimum economy, are initiated and selected data are displayed and recorded. Other data are continually analyzed and the system operators are alerted to conditions that could affect the reliability of the power system during normal and emergency conditions.

In a letter dated June 9, 1991 (Tab 2), Minister of Electricity and Energy, Engineer Maher Abaza, requested an allocation of \$15 million from the 1992 funds for the continuation of the NECC upgrade. The additional funds will provide for the establishment of communication links between the Regional control centers and the NECC; upgrade the transmitting capability of the existing Substation Remote Terminal Units (RTU's); provide real time system changes in the power network to the NECC for network analyses; provide real time system status of the protection equipment; and, standardize the protocol between the RTU's and the data processing system.

Cairo 20728 dated 11/18/91 transmitted an advice of program change to AID/Washington, and requested a Congressional Notification (CN) regarding the Mission's intent to obligate \$80 million to the Power Sector Support Project in FY 1992. Subsequently, STATE 38454 notified the Mission that the 15 day waiting period had expired without objection. The current CN covers the February 12, 1992, obligation of \$40 million as well as the presently proposed obligation of the \$40 million balance of FY 1992 funds.

JUSTIFICATION FOR PROJECT AMENDMENT

The December 1991 MOU stipulated that the balance of Power Sector Support funding for FY92 will be provided upon (i) confirmation that an electricity price increase has been implemented and is producing an average system tariff equal to 69 percent of the Long Run Marginal Cost; and (ii) receipt of a plan acceptable to AID from the GOE for tariff redesign including a time schedule for implementation.

DR/UAD has been informed (verbally) by the Chairman of EEA that these conditions were met as of July 1, 1992. Initial documentation in support of this assertion was provided to USAID by EEA on July 25, 1992. DIR/EAS is examining these materials, and has requested supplementary information and technical clarifications from EEA. In order to expedite the authorization process in light of the September 30, 1992, obligation deadline, it is recommended that the \$40 million authorization amendment be approved at this time. A project agreement amendment to obligate the \$40 million will be prepared but not executed by USAID until it has determined that the requirements of the MOU have been met.

AUTHORITY

Under paragraph 3 of Delegation of Authority No. 653, you have authority (without dollar limitation) to approve an amendment of the project authorization to increase the LOP funding. Under paragraph 5 of Mission Order No. 5-4, your authority has not been redelegated.

RECOMMENDATION

That you approve this Project Paper Supplement and sign the attached Amendment No. 4 to the Project Authorization (Tab 3) and the revised Project Data Sheet (Tab 4) to authorize an additional \$40 million for the Power Sector Support Project.

Approved 
 Disapproved _____
 Date 8/5/92

Attachments:

- Tab 1 - Letter, EEA to USAID, June 15, 1992, as amended
- Tab 2 - Letter, Ministry of Energy and Electricity to USAID, June 9, 1991
- Tab 3 - Amendment No. 4 to the Project Authorization
- Tab 4 - Amendment No. 4 to the Project Data Sheet

Clearances:

OD/DR/UAD: F Guymont: 
 AD/DR: PThorn: 
 AD(A)/LEG: VMoore: 
 OD(A)/PDS/PS: MJune: 
 OD(A)/PDS/P: JGuisti: 
 AD/FM: MFranklin: 

TRO
APR 30

Draft: DClardy: DR/UAD: GRWhaley: PDS/PS: 07/19/92: DocID: PSAUTH4.792

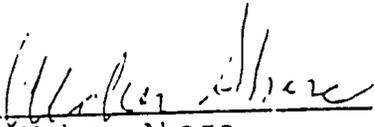


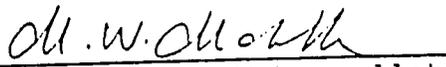
GRW

**POWER SECTOR SUPPORT
AID GRANT 263-0215
MEMORANDUM OF UNDERSTANDING**

This memorandum records the understanding between the Ministry of Electricity and Energy, the Ministry of International Cooperation and the United States Agency for International Development regarding the funding to meet the foreign exchange shortfall in the Power Sector Support Project component for the Cairo South Combined-Cycle Plant.

1. The Ministry of Electricity and Energy hereby confirms the Government of Egypt's commitment to increase electricity prices during the second quarter of calendar year 1992 by an amount sufficient to produce an average system tariff equivalent to 69 percent of the Long Run Marginal Cost, as determined in the Electricity Pricing Strategy Study of 1991 (based on the best estimate of all input parameters).
2. The Ministry of Electricity and Energy further agrees to present a plan and a timetable for implementation, acceptable to USAID, during the second quarter of calendar year 1992 dealing with tariff redesign as proposed in the Electricity Pricing Strategy Study of 1991.
3. The Ministry of International Cooperation agrees to allocate \$40 million from the FY-92 AID financing to cover the Cairo South Combined-Cycle Plant shortfall.
4. USAID agrees to provide up to \$40 million as the initial increment of Power Sector Support financing for FY-92 prior to actual implementation of the electricity price increase as funds become available.
5. The balance of Power Sector Support funding for FY-92 will be provided upon: confirmation that the electricity price increase planned for the second quarter of calendar year 1992 has been implemented and is producing an average system tariff equivalent to 69 percent of the Long Run Marginal Cost; and, receipt of a plan acceptable to AID from the Government of Egypt for tariff redesign including a time schedule for implementation.


Eng. Maher Abaza
Minister of Electricity
and Energy


Dr. Maurice Makramallah
Minister of State for
International Cooperation


Henry H. Bassford
Director, USAID/Egypt

Date: DEC 23 1991



UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

CAIRO, EGYPT

FOURTH AMENDMENT TO PROJECT AUTHORIZATION

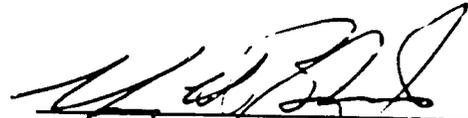
Name of Country: Arab Republic of Egypt Name of Project: Power Sector Support

Number of Project: 263-0215

1. Pursuant to Section 532 of the Foreign Assistance Act of 1961, as amended, the Power Sector Support Project was originally authorized on September 18, 1989, and amended on June 13, 1990, June 27, 1991 and January 26, 1992. The authorization is hereby further amended as follows:

Paragraph 1 is amended by deleting "\$391 million" and inserting "\$431 million" therefor.

2. The authorization cited above remains in force except as hereby amended.


Henry H. Bassford
Director, USAID/Egypt

8/15/92
Date

Clearances:

OD/DR/UAD, FGuymont	<u>fu</u>
AD/DR, PThorn	<u>PT</u>
A/AD/PDS, RJordan	<u>RJ</u>
AD/FM, DFranklin	<u>DF</u>
PDS/PS, GRWhaley	<u>GRW</u>

AA
7/30

DRAFTED:LEG:VMoore:mf:(7/17/92):4PATH215

