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EBASCO OVERSEAS CORPORATION

WAPDA-USAID Power Distribution Program

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EBASCO

EBASCO/AID-92-10-06L

October 15, 1992

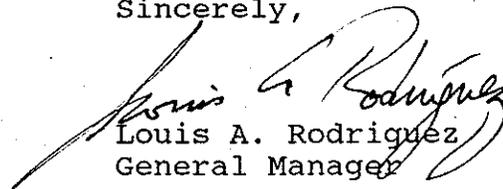
Mr. John Kerr
Program Manager
Power Distribution Program
USAID
18 Sixth Avenue, Ramna-5
Islamabad

Subject: Power Distribution Program 391-0473
Contract # 391-0473-C-00-2589
Quarterly Progress Report for period
ending September 30, 1992

Dear Mr. Kerr:

EBASCO is pleased to forward herewith its Quarterly Progress Report for the July through September 1992 period. The report provides the Project activities progress and accomplishments during the reporting period.

Sincerely,


Louis A. Rodriguez
General Manager

cc: To Distribution

B

REPORT DISTRIBUTION LIST

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MINISTRY OF FINANCE - ECONOMIC AFFAIRS DIVISION

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Mr. Sajid Masood Qureshi, General Manager - Administration (D)
Mr. Naseer A. Qureshi, General Manager - Customer Services (D)
Mr. M. Shahabuddin, General Manager, Planning, Engg & Std (D)
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Mr. A.H. Naseem, Project Engineer, Lahore
Ms. Marilyn B. Buchan, Chief, Contracts/Commodities
Mr. Girdard J. LaBombard, Commodities Management Officer
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Mr. James Tarrant, Project Officer

EBASCO - New York

Mr. Cono A. Petrizzo
Mr. Timothy R. Vardaro

WAPDA-USAID
POWER DISTRIBUTION PROGRAM
(CONTRACT NO.391-0473-C-00-2589-00)

QUARTERLY REPORT
FOR THE
QUARTER ENDING
SEPTEMBER 1992
REPORT 92-02

EBASCO
OCTOBER 15, 1992
LAHORE, PAKISTAN

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**WAPDA/USAID POWER DISTRIBUTION PROGRAM
QUARTERLY PROGRESS REPORT
FOR THE QUARTER ENDING SEPTEMBER 1992**

I. INTRODUCTION

A. PURPOSE AND SCOPE

This report presents the progress of the miscellaneous activities stated in Contract Number 391-473-C-2589-00 between USAID and EBASCO Overseas Corporation and as modified in the Minutes of Negotiation dated April 22, 1992. The Contract effective date is May 1, 1992. The objective of the project is to provide technical assistance services to the Power Distribution Program. This is the second progress report to USAID under the current contract, entitled "Quarterly Progress Report for the Quarter Ending September 1992" and covers the period of July 1, 1992, through September 30, 1992.

The report includes the Project Activities status to date, problems affecting each task, if any, and possible recommendations to resolve these problems. There are two major tasks under this project assignment, namely, Energy Loss Reduction and Mapping. Energy Loss Reduction includes the rehabilitation of high power loss feeders to bring these losses to acceptable levels. Mapping includes the distribution system feeder survey, field inventory, development of maps and data bases. The EBASCO Team concentrates a great deal of its level of efforts in meeting the scope of these two project objectives.

B. SUMMARY

1. Activity 10 - Administration

The project progress is satisfactory and in accordance with the schedule of activities.

Approval was granted by USAID to change Mr. Cal Merrell, CADPAD Specialist, position from two Expatriate Short Term (EST) assignments to a single Expatriate Long Term (ELT) assignment. Mr. Merrell joined the EBASCO Team, in Lahore, on August 11, 1992.

Mr. Shan M. Khan, Cashier/Secretary of the Contract Financial/ Admin Section resigned and was released July 7, 1992. Mr. Amjad H. Butt, Inspector Mapping died August 12, 1992, due to a severe heart attack during a survey trip to Islamabad. Mr.

Arshad Maqbool, Advisor Purchase and Inventory Control completed his assignment with EBASCO and returned to WAPDA on September 30, 1992.

The EBASCO inspection team has been expanded to a total of five inspectors. Interviews are being conducted to increase the number to a total 7 or 8 inspectors.

2. Activity 20 - Mapping/Energy Loss Reduction

a. Mapping

The production of maps and development of data bases is beginning to accelerate and contractors are beginning to submit preliminary drawings. Contractors in general are behind schedule.

The Mapping Contractors Third Quarterly Review Meeting was held on September 14, 1992, at the offices of USAID, Lahore. The meeting was attended by representatives from WAPDA, USAID and all four mapping contractors. Contractors gave an overview of their progress. Some problems faced by the contractors were discussed. It was decided to extend the September 15, 1992, date for submission of maps unaccompanied by data tapes to December 31, 1992.

The progress to date is as follows:

Contractors	Survey/Inventory (kms)	DRMs Submitted	
		Grid Stations	Feeders (kms)
BVI	10,000 (1)	0	0
Geonex	9,667	3	1,412
ICC	10,252	3	650
	5,200 (Survey)		
Techred	2,209	1	354
	Total		2,416

(1) Resurvey is required to meet contract requirements

BVI On September 14, 1992, a revised set of sample maps were resubmitted after making corrections. These maps are under review by WAPDA/ EBASCO.

In consideration that the work performed and the progress to date is not acceptable to WAPDA, WAPDA has written many letters stating the potential for a Non-Performance call to BVI. WAPDA has officially informed BVI that they are not performing in accordance with the signed agreement.

At the request of WAPDA, BVI is to present to WAPDA no later than October 8, 1992, a plan of action to ensure that the project will get back on the track to success. BVI has been notified that failure to submittal of the Plan will result in WAPDA initiating the non-performance proceedings for contract termination and encashment of their performance bonds.

ALL All contractors requested an extension of the date for submittal of the drawings without tapes. WAPDA has agreed to this request of the Mapping Contractors made at the September 14, 1992, USAID/WAPDA/EBASCO Coordination Meeting. An addendum was drafted by EBASCO, reviewed and approved by WAPDA.

b. Energy Loss Reduction

Review and approval of ELR Work Orders both for USAID and ADB funded programs during the reporting period is as follows:

Work Orders	Reviewed	Approved	Cumulative Total	
			Reviewed	Approved
USAID	13	3	23	13
ADB	1193	1083	1356	1240

On the job training was provided to the Planning Staff from all AEBs in the development of Work Orders using the Computerized Work Order System (CWOS). More than 50 Planning Engineers were trained.

Work Orders	Executed	Certified	Cumulative Total	
			Reviewed	Approved
USAID	20	20	68	68
ADB	163	163	273	263

Capacitor Installation Status

Type	Provided By USAID	Certified	Balance
Fixed	600	552	48
Switch	150	150	0
Total	750	702	48

Based on the records available within EBASCO, the ELR financial status September 30, 1992, is as follows:

	Dollars X 1000
Available ELR Resources	
FAR Funds Allocated by USAID	9,490
Material Purchase by USAID	8,196
Total Available ELR Resources	17,686
 Total Work Orders Certified	
Material Offset	8,196
Amount Reimbursed to WAPDA	5,880
Total Work Orders	14,076
 Current Backlog in WOs Execution Based on PILs	
Material To Be Offset	0
FAR Funds to Be Utilized	456
 Remaining Available Resources to WAPDA	
Material Available in the Stores	0
FAR Funds to Be Utilized	3,153

3. **Activity 40 Institutional Improvements and Reorganization**

Bifurcation of Rural/Urban Accounts - On the job training was provided to accounts staff from seven AEBs for splitting the balances as of June 1987, into rural and urban accounts.

A presentation was made by EBASCO to WAPDA/USAID to explain the background and status of Rural/Urban Bifurcation of Accounts activity which is being carried out in accordance with the World Bank requirements.

Classroom training on Computerized Stores Inventory System (CSIS) software was provided to the Peshawar AEB relevant staff at EBASCO office.

II. ACTIVITY 10 - CONTRACT ADMINISTRATION

Overall project administration is being provided effectively. It has been noted that a remarkable improvement in overall project efficiency is being experienced. The necessary liaison with USAID, WAPDA and Mapping Contractors continues effectively. Project continues on schedule and within the budget. Figures for the month of September 1992, included in Tables 1 and 2, Graphs Figures 1, 2, 3 and 4 are estimated.

Table 1 presents the Level of Effort status to the end of September 30, 1992, and shows the cumulative person months budget, actual person months expended and percent utilization to the end of the reporting period.

TABLE 1
LEVEL OF EFFORT STATUS TO THE END OF
SEPTEMBER 30, 1992

CATEGORY	BUDGET	PERSON MONTHS	
		EXPENDED PMS	PERCENT
Long Term Expatriate	37.00	6.09	16.46%
Short Term Expatriate	3.00	0.00	0.00%
Home Office Support	12.00	1.87	15.60%
TOTAL EXPATRIATE	52.00	7.96	15.31%
Long Term Pakistani Professionals	307.00	78.64	25.62%
Short Term Pakistani Professionals	6.00	2.00	33.33%
Pakistani Professional Support Staff	172.00	32.23	18.74%
TOTAL PAKISTANI STAFF	485.00	112.87	23.27%
TOTAL LEVEL OF EFFORT	537.00	120.83	22.50%

Table 2 provides the Budget and Actual Project costs summary to the end of September 30, 1992.

TABLE 2

BUDGET AND ACTUAL COST SUMMARY
TO SEPTEMBER 30, 1992

CATEGORY	US DOLLARS		%
	BUDGET	ACTUAL	
Salaries and wages	347,033	45,466	13.10
Overhead	272,786	28,094	10.30
Allowances	110,986	9,669	8.71
Subcontractor and Site Costs:			
ITECO	68,181	0	0.00
ABACUS	549,675	117,056	21.30
EMMAY	417,750	72,595	17.38
Site Office	245,574	13,498 (*)	5.50
Subtotal Subcontracting/Site Costs	1,281,181	203,149	15.86
Other direct costs	38,266	1,769	4.62
Travel/per diem	107,834	8,000	7.42
Sub total	2,158,086	296,147	13.72
Fixed fee @ 8.5%	183,437	25,173	13.72
TOTAL COST PLUS FIXED FEE	2,341,523	321,320	13.72

(*) Site office actual includes only the previous month

The curves of Figure 1 illustrate on a monthly basis the person months budgeted for the home office and site (expatriate personnel) and the foreign service nationals (FSNs) over the two year contract period. The curves of Figure 1 also show the actual person months expended to the end of the reporting period, September 30, 1992.

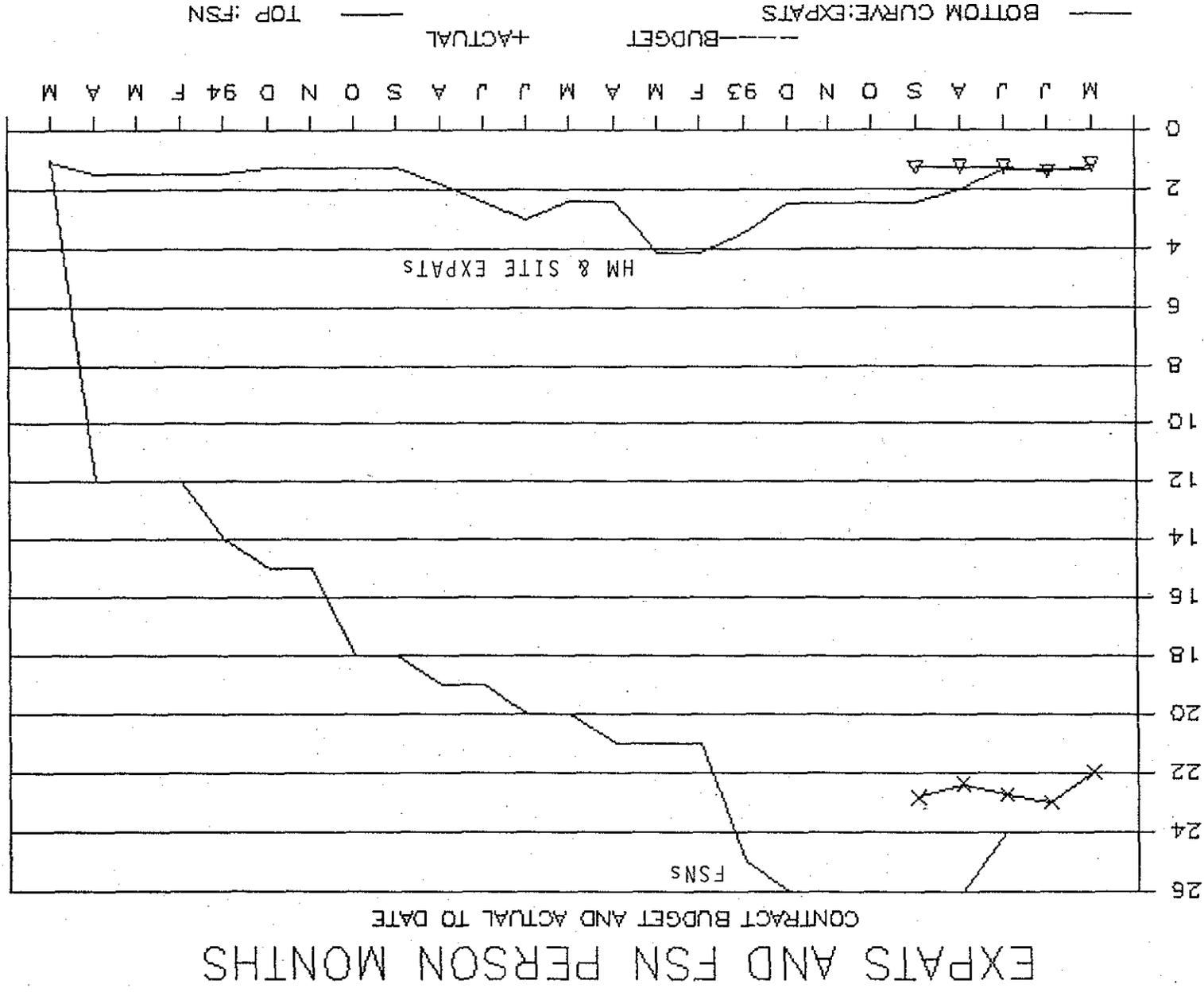
The curves of Figure 2 illustrate on a monthly basis the funds budgeted for the home office and site (expatriate personnel), the foreign service nationals (FSNs) and includes the home office and site projected expenditures over the two year contract period. The curves of Figure 2 also show the actual expenditures in US dollars to the end of the reporting period, September 30, 1992.

The curves of Figure 3 illustrate on a cumulative basis the person months budgeted for the home office and site (expatriate personnel) and the foreign service nationals (FSNs) over the two year contract period.

The curves of Figure 3 also show the actual accumulated person months expended to the end of the reporting period, September 30, 1992.

The curves of Figure 4 illustrate on a cumulative basis the funds budgeted for the home office and site (expatriate personnel), the foreign service nationals (FSNs) and includes the home office and site projected expenditures over the two year contract period. The curves of Figure 4 also show the actual expenditures in US dollars to the end of the reporting period, September 30, 1992.

FIGURE 1 - MONTHLY BUDGET AND ACTUAL EXPENDED PERSON MONTHS



CONTRACT COST (THOUSAND DOLLARS)

CONTRACT COST AND ACTUAL TO DATE

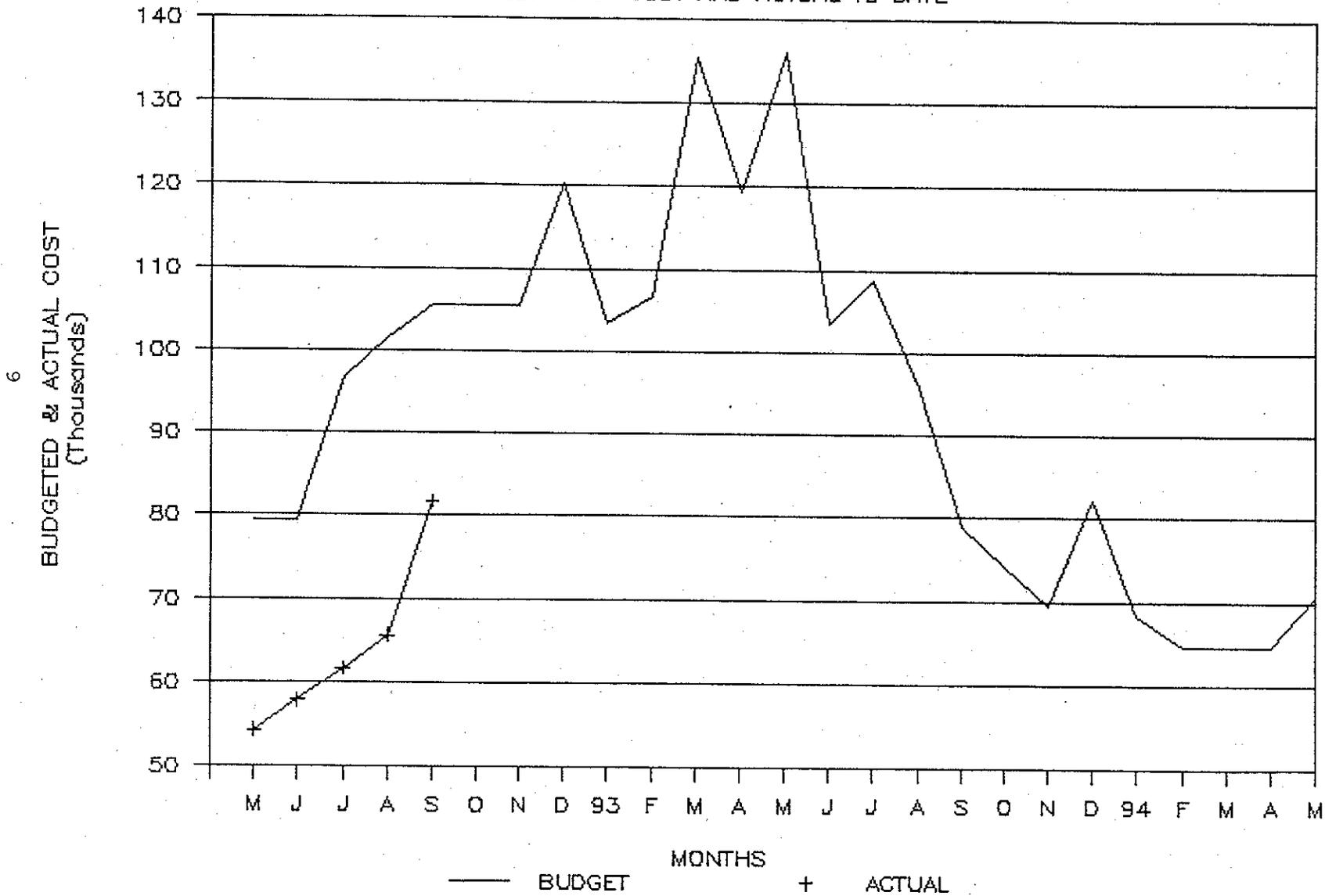


FIGURE 2 - MONTHLY BUDGET AND ACTUAL COSTS

COMULATIVE EXPATS AND FSN PERSON MONTHS

CONTRACT BUDGET AND ACTUAL TO DATE

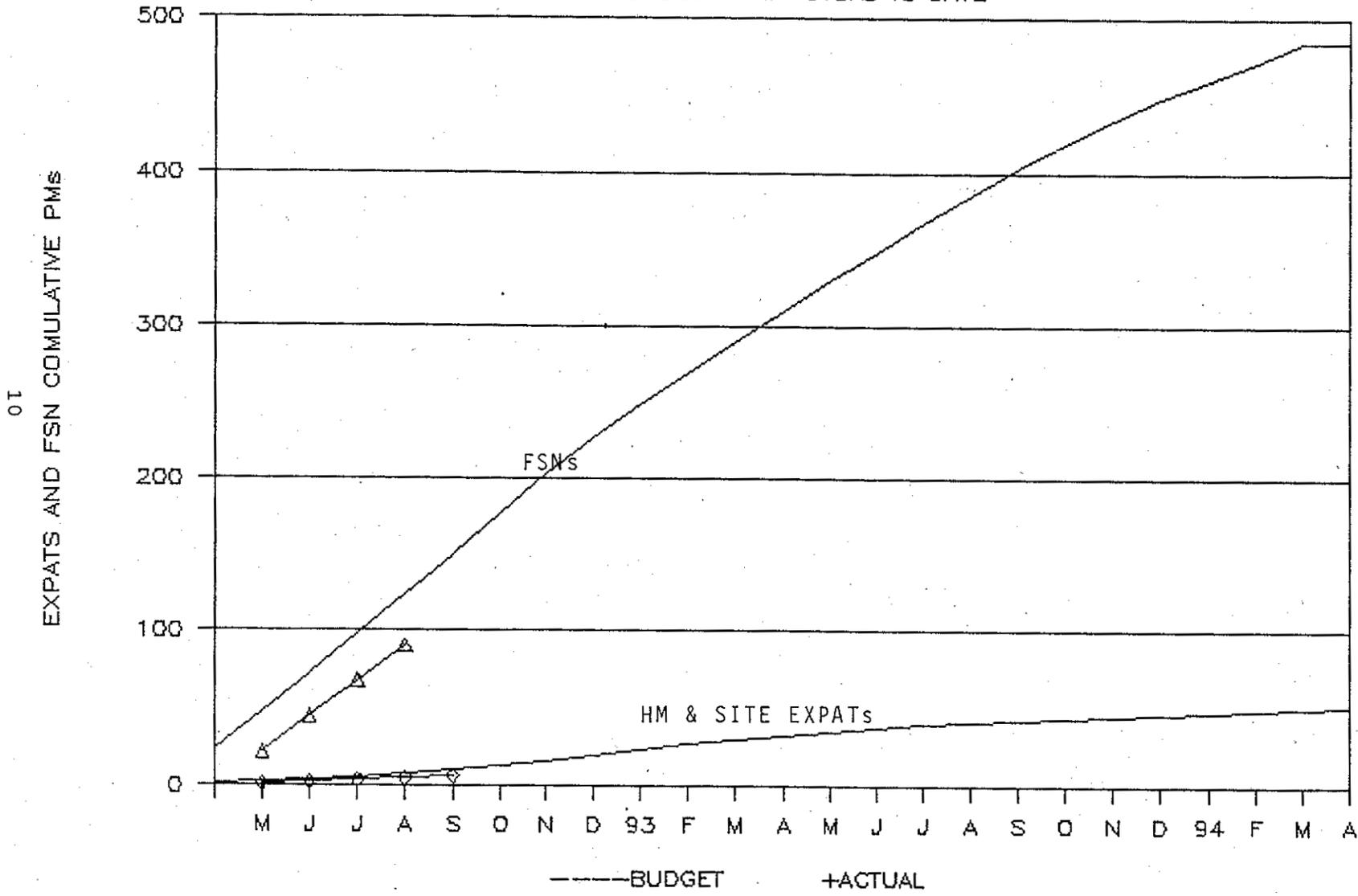


FIGURE 3 - CUMULATIVE BUDGET AND ACTUAL EXPENDED PERSON MONTHS

CUMULATIVE CONTRACT COST (MILLION \$)

CONTRACT COST AND ACTUAL TO DATE

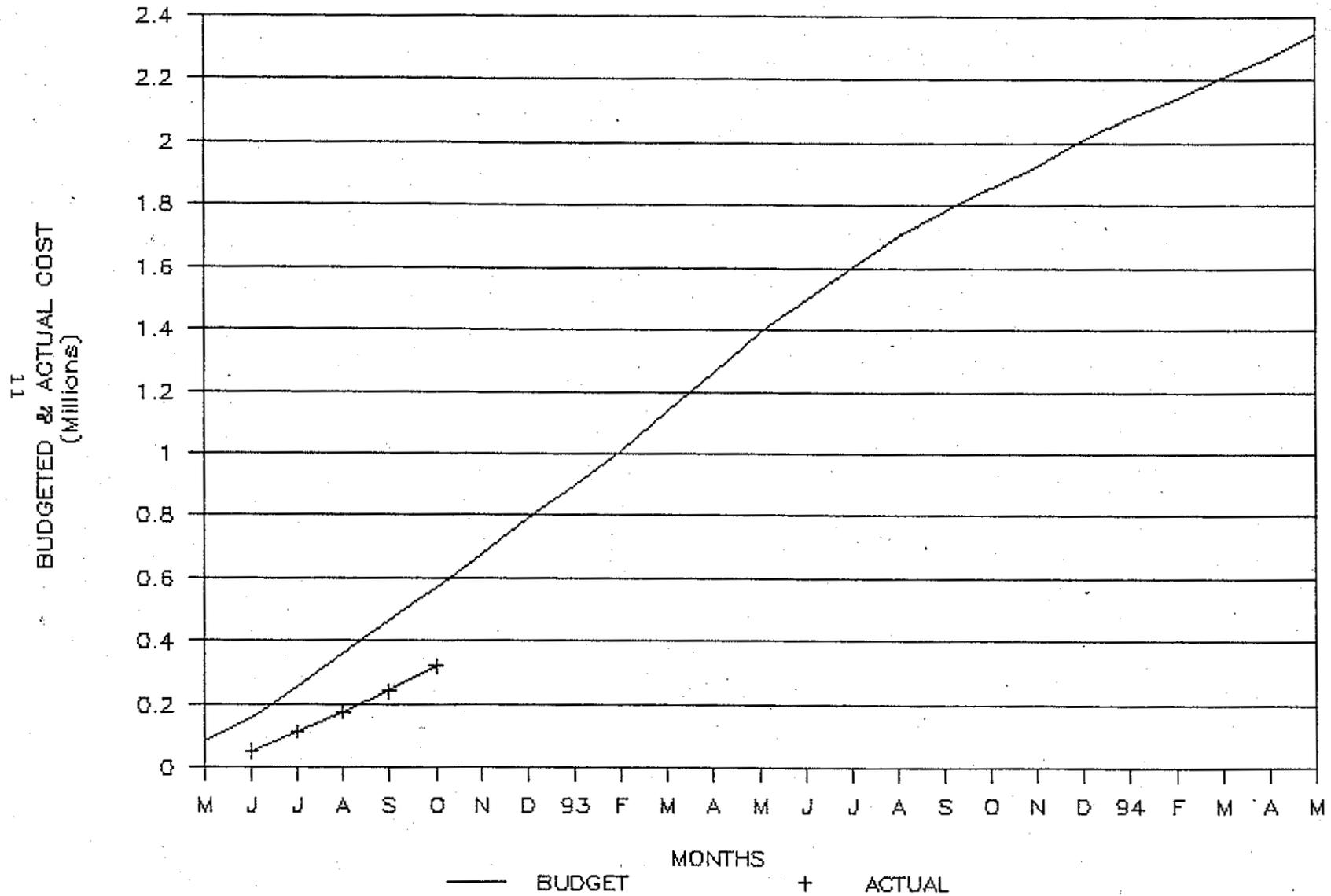


FIGURE 4 - CUMULATIVE BUDGET AND ACTUAL COSTS

III. ACTIVITY 20 - MAPPING/ENERGY LOSS REDUCTION

A. SUB-ACTIVITY 20.01 SURVEYING/MAPPING OF FEEDERS

1. EBASCO continues providing assistance to WAPDA in Mapping Contracts administration and progress monitoring. Assisted WAPDA in responding to technical queries and elaboration of mapping contract clauses raised by the contractors. Complete guidelines were provided to mapping contractors spread over several lengthy sessions explaining the map requirements and a thorough understanding of the database formats and development of mapping databases.

WAPDA headquarters, AEB personnel and EBASCO have formed Mapping Inspection Teams to verify the accuracy and quality of the maps submitted by the contractors.

GEONEX Based on the approved Sample Drawings, Geonex submitted preliminary drawings, 1,412.3 kilometers, for two Grid Stations of Lahore AEB and for one in Gujranwala during the months of August and September.

ICC ICC submitted the set of revised sample drawings for the approval of WAPDA. Based on the Sample Drawings, ICC submitted preliminary drawings, 650 kilometers, for two grid stations of the Islamabad AEB and for one in Peshawar AEB during the months of September.

TECHRED The computerization of the data base and development of the various software programs to meet project needs appears ahead of schedule. TECHRED submitted drawings for one Grid Station of Quetta AEB, 354 km of feeders, for review and comments by WAPDA.

2. Third Mapping Contractors Quarterly Review Meeting was held on September 14, 1992, at the offices of USAID in Lahore. The meeting was attended by WAPDA, USAID, EBASCO and the Mapping Contractors. Contractors gave an over view of their progress. Some problems faced by the contractors were discussed. It was decided to extend the September 15, 1992, date for submission of maps unaccompanied by data tapes to December 31, 1992.

The contractors progress reported at this meeting was as follows:

Contractor	Survey/Inventory	DRMs Submitted
BVI	10,000 km (1)	-
Geonex	9,667 km	1,412 km
ICC	10,252 km	650 km
	5,200 km (Survey)	
Techred	2,209 km	354 km

- (1) Resurvey work plans are being prepared by BVI due to the poor quality of the work presented in the Sample drawings.
- Working Group Meeting was held with the contractors on September 15, 1992, at the EBASCO office. Several technical issues and those related with level of details on DRMs were raised by M/s BVI. These were discussed at length and resolved in accordance with the contract stipulations.
 - Quality Control Charts provided by all the contractors were reviewed by EBASCO and WAPDA. Contractors were given the comments in writing to improve the procedures. Clarifications were requested in some cases and response from contractors is awaited in this regard.
 - ICC and Geonex have submitted revised work plans after incorporating the necessary changes. They have included progress line charts in their work plans as suggested by WAPDA. Techred and BVI have not responded to WAPDA comments for improving their work plans as yet.
 - Techred submitted alternative proposals for submission of mapping databases. These proposals were evaluated by EBASCO and WAPDA and Techred has been given a written reply recommending the course of action. BVI has not given a written proposal in this regard, although they had expressed an interest to do so in the earlier working group meetings.
 - Specimen map prepared by WAPDA/EBASCO was handed over by WAPDA to the contractors along with a drawing of all standardized symbols and line styles. The contractors have been advised to follow the specimen map and standardized symbols and line styles when plotting the maps.

8. Sample DRMs submitted by Geonex have been approved. The ICC also submitted revised sample DRMs. These have been reviewed and recommended for approval. Techred has submitted maps for one grid station in Quetta AEB and these include the sample DRMs which are being reviewed. After a delay of three months, BVI has resubmitted DRMs for WAPDA review and these are being inspected now.
9. EBASCO mapping inspectors continued to provide On-the-Job-Training (OJT) to WAPDA survey and mapping staff in field in Lahore, Islamabad, Faisalabad and Gujranwala Area Electricity Boards. Upon submission of DRMs for other AEBs, the EBASCO inspectors will provide OJT to the respective AEB survey and mapping staff during actual field inspections of the DRMs. Quetta and Peshawar AEBs are scheduled for this purpose during October/November of the next quarter.
10. The mapping inspectors visited Islamabad, Chiniot and Lahore Area Boards to perform field validations of revised sample maps submitted by ICC, BVI and Geonex respectively. Reports prepared by the inspectors and their comments formed the basis of evaluation of sample DRMs submitted by the contractors. Techred has only recently submitted DRMs for one grid station in Quetta. These maps are being checked for presentation quality and adherence to standardized symbols and line styles provided to the contractors. Geonex's submission of preliminary maps for one grid station of Lahore AEB and one for Gujranwala AEB are under review. Lahore AEB grid station maps were field inspected. Comments are being finalized.
11. JBL finished their training on Relational Database Management in obligation of their contractual requirements. The training was attended by WAPDA personnel from Mapping and Records and EBASCO representative.
12. Monitoring and installation of new CADPAD modules continued in this quarter. Mr. Ken Aldridge from ABB-ADD came over from USA to install and test the new mapping software module, WIDGIT RDBMS AM/FM. He was supported by EBASCO engineers and local hardware and software engineers in his efforts. Mr. Aldridge spent nine days in Lahore and managed to rectify almost half the problems pointed out by the EBASCO engineers. To correct the other problems and make the program meet all the contractual requirements, he plans another visit to Lahore in near future. The WIDGIT RDBMS training which was to be conducted by Mr. Aldridge was postponed indefinitely because of the program not working to the satisfaction of WAPDA/EBASCO.

B. SUB-ACTIVITY 20.02 ENERGY LOSS REDUCTION

Task 20.02.01 USAID Energy Loss Reduction

Task 20.02.02 ADB Feeder Rehabilitation Project

1. Work Order Review/Approvals

Review and approval of ELR Work Orders both for USAID and ADB funded programs continued:

ELR Program	W.O. Reviewed	W.O. Approved	Cumulative Total	
			Reviewed	Approved
USAID	13	3	23	13
ADB	1193	1083	1356	1240

2. Work Order Execution Monitoring Inspection and Certification

Activity continued for both USAID and ADB ELR Program Work Orders:

ELR Program	W.O. Inspected	W.O. Certified	Cumulative Total	
			Reviewed	Approved
USAID	20	20	68	68
ADB	163	163	273	263

3. Construction, Maintenance and Operation Procedures/OJT

During ELR inspections the Inspectors continued to assist the field personnel in the use of the approved CM&O procedures. The ELR Inspectors instructed and provided on-the-job training guidance to WAPDA construction crews in the use of proper tools and procedures to construct/rehabilitate the feeders according to the laid down WAPDA standards. The crews and their supervisors were guided in the installation of compression sleeves using appropriate tools and the installation of bolted parallel groove connectors. In addition training and guidance was provided to the construction crews in the proper execution of the following line works:

- Dead-end assemblies using the recommended hardware both for HT and LT lines.
- Conductor stringing.
- Structure/pole grounding.

Factors that contribute to the improving of general appearance of the lines such as verticality of structures, correct horizontal installation of cross-arms and their dressings and the proper locations of guys etc., were explained to the construction crews at various work locations.

The ELR Inspectors also provided on-the-job training to the maintenance and operation staff available at the time of final inspections in the use and maintenance of installed ELR facilities, particularly the line capacitors.

4. Safety

During inspection of ELR works guidance and on-the-job training, where required, was provided to the construction staff in the proper execution of ELR Work Orders, utilizing WAPDA approved standards, policies, procedures, and guides following the specified safe work procedures. Importance and use of personal protective equipment, such as hard hats, boots, and safety belts in the performance of the construction jobs was explained to construction staff. Need for the installation of proper earthing and observance of correct clearances for protecting life and equipment was highlighted.

Importance of earthing of lines for safety of line crews by using the appropriate grounding apparatus was explained.

5. Post Construction Monitoring

The post construction inspection of lines and capacitors continued in various AEBs. A total of 46 capacitor banks and the rehabilitated line portions in the vicinity were randomly inspected to the end of the report period and comments were provided to WAPDA indicating operational status of the installed capacitors.

A report entitled Evaluation of the "Energy Loss Reduction Program" was prepared as requested by USAID. The primary purpose of the evaluation was to examine the effective utilization of USAID financed ELR commodities, particularly the HT line capacitors. The report was submitted to USAID for review. USAID after review of this evaluation report agreed to continue supporting the ELR activities of WAPDA, guided and monitored by EBASCO.

6. On The Job Training

WAPDA assigned Planning Engineers to EBASCO from different AEBS for the preparation of ELR Work Orders under the direct guidance and supervision of the Consultant. This action by WAPDA has facilitated and accelerated the work of preparation of ELR Work Orders accurately and uniformly and will ensure institutionalization of Computerized Work Order System in WAPDA Distribution function.

IV. ACTIVITY 30 - ENGINEERING PLANNING AND DEVELOPMENT

Task 30.00.01 Load Forecasting

The four member WAPDA team assigned to Load Forecast exercise for Gujranwala III Division using CADPAD DLF-2 module completed the assignment. A draft report on the study giving details of methodology, data requirements, data collection and analysis, DLF-2 program operation and results has been prepared and is under EBASCO review. It will be presented to WAPDA after review for use in future load forecasting studies.

Task 30.00.02 Outage Reporting System

Input and Editing sections of the Outage Reporting System have been completed. Programming for one division level report has also been done. The program is being tested for errors. Progress on this task was slower than expected because of the assigned person's preoccupation with field work in other activities such as implementation of Customer Information System and Installation of Accounting System in Lahore AEB divisions.

Task 30.00.03 Institutional Improvement Support

The Computerized Work Order System (CWOS) was installed at division personal computers (PC) in all the AEBs where computers have been provided. On-Job-Training was provided to more than fifty WAPDA engineers on using the program to generate the computerized work orders. Over two thousand HT/LT work orders were generated by the trainees working at the EBASCO office.

Task 30.00.04 PDW Metering

Work on this activity is not required until USAID makes an official request to modify scope of work and increase the budget as stated in the Minutes of Negotiation.

Task 30.00.05 PC Based Feeder Analysis Program

Work on this activity was suspended temporarily for undertaking the Work Order system OJT during the report quarter (refer 30.00.03). The PC based Computer Aided Distribution Planning Analysis (CADPAW) has already been installed in Lahore AEB divisions and training in its use provided to the relevant Planning staff. The program will be installed in other AEBs from the beginning of the next quarter. OJT on CADPAW for all AEBs Divisions Planning staff

except Lahore AEB has been scheduled for October 1992. This OJT is in addition to the formal training already provided to the AEBs Planning engineers. All new LT work order proposals will be developed using the PC based feeder analysis program CADPAW. WAPDA has issued necessary instructions in this regard to all AEBs.

Task 30.00.06 Expansion Planning

Mr. Cal Merrell was assigned by ABB-ADD to conduct training sessions for WAPDA engineers on using CADPAD FEEDERPLAN modules. These include load forecasting for rural and urban areas and expansion planning studies. Mr. Merrell is conducting the training in two parts. Twenty three WAPDA engineers are attending the training sessions to learn the use of FEEDERPLAN. Two planning engineers are also attending the training sessions. This training is being conducted by ABB-ADD to fulfill their contractual requirements.

V. ACTIVITY 40 - INSTITUTIONAL IMPROVEMENT AND REORGANIZATION

SUB-ACTIVITY 40.01 ADMINISTRATION

Task 40.01.01 Computerization of Employee Records

No activity during this quarter since the work in two AEBs viz Lahore and Gujranwala as per terms of contract has already been completed.

Task 40.01.02 Level-I Reorganization

1. The Report for the Reorganization of Divisions of Lahore AEB under Level I, II and III which was submitted to WAPDA in the preceding quarter was revised and the modifications were submitted to WAPDA.
2. A joint EBASCO/WAPDA meeting was held in the Office of the Superintending Engineer, Sheikhpura Circle, in which the General Manager Operations and Chairman Gujranwala AEB were also present. Implementation status of the Model Divisions of Sheikhpura and Muridke was reviewed to identify problems and impediments, if any, that may have bearing on the reorganized structure proposed for the Lahore AEB Division.

SUB-ACTIVITY 40.02 FINANCE

Task 40.02.01 Fixed Assets - Physical Verification

The work on the verification of fixed assets not covered under the Mapping contract was restarted. The verification is continuing. No data has yet been received from the Mapping Contractors to initiate the work of costs allocations.

Task 40.02.02 Fixed Assets - Accounting Manual

Pilot test of the Fixed Assets Accounting Manual continued in the two divisions of Lahore AEB.

Task 40.02.03 Reorganization under Institutional Improvement Program

Computerized WAPDA Accounting System (WAS) was installed in the 16 Divisions of Lahore AEB. On the job training using actual data is being provided at the Divisions and formal training with sample data entries is being provided at EBASCO office to the accounts staff of the Divisions.

Task 40.02.04 Bifurcation into Rural/Urban Accounts

1. On the job training was provided to the accounts staff for splitting the balances as of June 30, 1987 into Rural and Non-Rural accounts at all AEBs except for Hyderabad AEB which could not be reached owing to inclement weather conditions and floods in that area.
2. A presentation was made by EBASCO to WAPDA/USAID to explain the background and the status of this task which is being carried out in accordance with the World Bank requirements. The participants included the following:

WAPDA	Member Power Member Finance Managing Director (D) General Manager, Finance (P) General Manager, Operations General Manager, Customer Services Chief Engineer (CM&O) Deputy General Manager, Finance (FO)
USAID	Chief Power Division Program Manager Project Manager
EBASCO	General Manager Chief Advisor, Finance, Admin & IIP

SUB-ACTIVITY 40.03 PURCHASING AND INVENTORY CONTROL

Task 40.03.01 Computerized Stores Inventory System (CSIS)

1. Faisalabad AEB was switched over from manual system to computerized system effective September 01, 1992.
2. Computerized Store Transaction Documents were introduced in Peshawar AEB. Training to all the Store Managers and Store System Supervisors was provided regarding the techniques involved in preparation of the new documents.

3. Class room training on CSIS software and Computer Operations was provided to the following staff of the Peshawar AEB in EBASCO's offices at 50 Zafar Ali Road, Lahore:

Deputy Director (IC)	1
Inventory Accountant	1
Store Managers	13
Store System Supervisors	10
Stock Clerks	19

Task 40.03.02 Material Control Procedures

There was no activity during this quarter. The approval of the Procedures is pending with WAPDA.

SUB-ACTIVITY 40.04 CUSTOMER SERVICES

Task 40.04.01 Commercial Procedures

1. As an ongoing process the Sheikhupura and Muridke Model Divisions were visited to ascertain if there was any need for making amendments in the procedures. Some problems have been highlighted which will be sorted out in the next meeting of the Supervisory Committee.
2. Development of the following procedures is in progress:
 - a. **C-Form-13**
Customer statistics report, Number of Applications Received, Connections Installed, Applications rejected etc.
 - b. **C-Form-22**
Line Losses Analysis - Feeder Code is being expanded from two digits to six digits to exhibit a particular grid station.
 - c. **C-Form-41**
Return of Customers Billing and Collections of Divisions.
3. Procedures have been developed for deduction of Income Tax from commercial tariff bills in accordance with the directives of the Government of Pakistan as announced in the budget 1992/93 effective July 01, 1992.

Task 40.04.02 Level-I Division Reorganization

1. Data entry and validation training was provided to the staff of Customer Services Offices in the Divisions of Second Circle.
2. Parallel run of Customer Information System was completed in Second Circle.
3. Office Order has been issued for switching over to new system of data entry and validation in the Second Circle.
4. An Implementation Team and Supervisory Committee has been formed for implementing the Customer Information System in Lahore AEB.

Task 40.04.03 AEB/Circle Reorganization

Parallel run of Customer Information System has been completed in Second Circle and Office Order has been issued for making the switch over to the new system from October 1992.

ATTACHMENT 1

**WAPDA IMPLEMENTATION PERSONNEL
AND EBASCO COUNTERPARTS**

WAPDA IMPLEMENTATION PERSONNEL AND EBASCO COUNTERPARTS

POWER DISTRIBUTION WING

WAPDA: Mr. A. Hafeez Ibrahim, Managing Director (D)
EBASCO: Mr. Louis A. Rodriguez, General Manager

ADMINISTRATION (D)

WAPDA: Mr. Sajid Masood Qureshi, GM, Administration (D)
EBASCO: Mr. Jameel ur Rehman, Chief Advisor,
Finance/Administration & IIP

PLANNING AND ENGINEERING (D)

WAPDA: Mr. M. Shahabuddin, GM, Planning, Engineering &
Standard (D)
EBASCO: Mr. Zahid Siddiqi, Chief Advisor, Distribution System
Planning

OPERATIONS (D)

WAPDA: Mr. S.M. Arshad Bokhari, GM, Operations (D)
EBASCO: Mr. Umar Hayat Khan, Chief Advisor, Mapping/ELR

PURCHASING AND INVENTORY CONTROL (D)

WAPDA: Mr. Bashir Ahmed Abbasi, GM, Purchasing & Stores (D)
EBASCO: Mr. Jameel ur Rehman, Chief Advisor,
Finance/Administration & IIP

CUSTOMER SERVICES (D)

WAPDA: Mr. Naseer A. Qureshi, GM, Customer Services (D)
EBASCO: Mr. Jameel ur Rehman, Chief Advisor,
Finance/Administration & IIP

FINANCE (D)

WAPDA: Mr. M. Rafique Chaudhry, GM, Finance (P)
EBASCO: Mr. Jameel ur Rehman, Chief Advisor,
Finance/Administration & IIP

ATTACHMENT 2

PROJECT STATUS REPORTS

STATUS REPORTS

DOCUMENT #	(START DATE) MM /DD /YY	(RPT DATE) MM /DD /YY	(STATUS) OF IMPL	DOCUMENT LOCATION	REPORT TITLE
40.001	1 / 1 /92	6 / 2 /92	NA -- --	AID EBASCO WAPD	ADMINISTRATION
40.001	1 / 1 /92	9 / 3 /92	NA -- --		X LAHORE AEB DIVISION REORGANIZATION PLAN VOLUME I AND II
					X LAHORE AEB DIVISION REORGANIZATION REVISED RECOMMENDATIONS

I=IMPLEMENTED,P=PENDING IMPL,AR=APPROVAL REQUIRED,D=DEV IN PROCESS,NA=NOT APPLICABLE

ATTACHMENT 3

PROJECT ACTIVITY MILESTONES

PROJECT ACTIVITY MILESTONES

TASK	MILESTONE		STATUS
	EBASCO	WAPDA	
	1992		
20.01.01			
Assist WAPDA in training of WAPDA Surveyors and Line Superintendents (WAPDA Mapping Inspectors)	Jul	Jul	In progress (Delayed due to delayed progress of map submissions by Contractors)
20.03.01			
Assist and support Level I, II, III Reorganization			
Lahore AEB Division/Sub-Division	Oct	Oct	In progress
30.00.01			
Finalize Data Collection Procedures Manual	Jun		Complete
Develop Sheikhpura and Muridke Load Forecast	Dec	Dec	In progress
30.00.04			
Develop specifications/costs of Metering equipment	Sep		Start Aug 92
Prepare data collection Procedure report	Sep		Start Aug 92
Prepare Work Plan for procurement/ installation equipment	Oct		Start Sep 92
40.01.01			
Assist WAPDA data collection and preparation of Reports			
Faisalabad AEB	Sep	Sep	In progress

TASK	MILESTONE		STATUS
	EBASCO	WAPDA	
	1992		
40.01.02			
Assist in implementation of Level I, II, III Reorganization Plan for Divisions of:			
Lahore AEB	Oct	Oct	In progress
40.02.03			
Assist PDW in Implementation of Level I, II, III Reorganization in Divisions of:			
Lahore AEB	Oct	Oct	In progress
40.02.04			
Assist PDW in splitting the opening balances	Sep		Completed except Hyderabad
40.03.01			
Assist PDW in implementation of CSIS in:			
Faisalabad AEB	Sep	Sep	Completed
40.03.02			
Approval Material Control Procedures Manual		Jun	Complete
Approval Material Disposal Procedure		Jun	Complete
Assist implementation in Headquarters		Dec	Start Jul 92
Master Stock Catalog approval		Jul	In progress
Design Central Reports for Transformer Tracking for Division, Sub-Divisions, AEB and Headquarters			
Approval of Authority		Oct	In progress

TASK	MILESTONE		STATUS
	EBASCO	WAPDA	
	1992		
40.04.01			
Revise Commercial Procedures			
Computer Billing	Jul	Jul	In progress
New Application Procedure	Nov	Nov	Start Aug 92
Meter Reading Procedure	Aug	Aug	In progress
Billing Procedure	Jun	Jun	Complete

40.04.02			
Assist PDW in implementation of Level I, II, III Reorganization:			
Lahore AEB	Dec	Dec	In progress

40.04.03			
Assist PDW in implementing Institutional Improvement Plan in AEBs and their Circles:			
Lahore	Dec	Dec	In progress

TASK	MILESTONE		STATUS
	EBASCO	WAPDA	
	1993		
20.01.01			
Develop and implement Mapping update procedures	Jun		Start Oct 92
Assist WAPDA in designing report formats	Jun	Jun	Start Oct 92
Train WAPDA in Map updating procedures	Dec	Dec	In progress

TASK	MILESTONE		STATUS
	EBASCO	WAPDA	
	1993		
20.02.02			
Assist, guide WAPDA W.O. preparation, provide OJT to AEB/Division staff	May		In progress
20.03.01			
Assist and support Level I, II, III Reorganization			
Multan AEB Division/Sub-Division	Jan	Jan	Start Aug 92
Faisalabad AEB Division/Sub-Division	Apr	Apr	Start Nov 92
Peshawar AEB Division/Sub-Division	Jul	Jul	Start Feb 93
30.00.01			
Train WAPDA Headquarter in Load Forecast	Jun		Start Oct 92
30.00.02			
Design code and test Outage Reporting System (ORS) Program	Jan		Start Aug 92
Develop ORS Users Manual	Feb		Start Dec 92
30.00.03			
Complete Divisions Reorganization	Jul	Jul	In progress
30.00.05			
Assist training AEB Headquarters/ Divisions in CADPAW	Mar		In progress
Assist training AEB Headquarters/ Divisions in CWOS	Jun		Start Oct 92
30.00.06			
Develop case study - Sheikhpura	Mar	Mar	In progress
Develop procedure report based on Case Study	Jun		Start Oct 92

TASK	MILESTONE		STATUS
	EBASCO	WAPDA	
	1993		
40.01.02			
Assist in implementation of Level I, II, III Reorganization Plan for Divisions of:			
Multan AEB	Jan	Jan	Start Aug 92
40.02.03			
Assist PDW in Implementation of Level I, II, III Reorganization in Divisions of:			
Multan AEB	Jan	Jan	Start Aug 92
40.02.04			
Develop and implement Bifurcation of Accounts etc., procedure	Dec	Dec	In progress
40.03.02			
Assist in implementation:			
Headquarters	Jan	Jan	Start Sep 92
40.04.01			
Revise Commercial Procedures			
Computer Billing	Jan	Jan	Start Sep 92
40.04.02			
Assist PDW in implementation of Level I, II, III Reorganization:			
Faisalabad AEB	Jan	Jan	Start Aug 92
	1994		
30.00.06			
Proposal on Substation sites	Mar	Mar	Start May 92

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ATTACHMENT 4

**ACTIVITY TIME PHASED WORK PLAN
PROJECTIONS/ACCOMPLISHMENTS**

ACTIVITY TIME PHASED WORK PLAN PROJECTIONS/ACCOMPLISHMENTS

ACTIVITY/ SUB-ACTIV	DESCRIPTION	1 9 9 2												1 9 9 3												1 9 9 4				
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May				
10.00	CONTRACT ADMINISTRATION	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX															
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
20.00	MAPPING/ENERGY LOSS REDUCTION																													
20.01	SURVEYING/MAPPING OF FEEDERS																													
20.01.01	Feeder Surveying/Map Development	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
20.02	ENERGY LOSS REDUCTION																													
20.02.01	USAID/ABB Energy Loss Reduction/																													
20.02.02	Feeder Rehabilitation																													
	1. Work Order Review Approvals	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
	2. Work Order Execution Monitoring, Insp & Cert	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
	3. Construction, Maintenance & Operation Procedures/OPF	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
	4. Safety	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
	5. Post Construction Monitoring	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
30.00	ENGINEERING PLANNING & DEVEL																													
30.00.01	Load Forecasting	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
30.00.02	Outage Reporting System	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
30.00.03	Institutional Impr Support	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A		XXXX	XXXX	XXXX																								
30.00.04	PDW Metering	P		XXXX	XXXX	XXXX	XXXX																							
		A																												
30.00.05	PC Based Feeder Analysis Program	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX																											
30.00.06	Expansion Planning	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A			XXXX	XXXX																								
40.00	INST IMPROVEMENT & REORGAN.																													
40.01	ADMINISTRATION																													
40.01.01	Computerization of Employee Records	P	XXXX	XXXX	XXXX	XXXX	XXXX																							
		A	XXXX	XXXX																										
40.01.02	Level I Reorganization	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
40.02	FINANCE																													
40.02.01	Fixed Assets - Physical Verification	P	XXXX	XXXX	XXXX	XXXX	XXXX																							
		A			XXXX	XXXX	XXXX																							
40.02.02	Fixed Assets Accounting Manual	P	XXXX	XXXX	XXXX	XXXX	XXXX																							
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
40.02.03	Reorganization under Inst Improvement Program	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							
40.02.04	Bifurcation into Rural/Urban Accounts	P	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX																
		A	XXXX	XXXX	XXXX	XXXX	XXXX																							

ACTIVITY TIME PHASED WORK PLAN PROJECTIONS/ACCOMPLISHMENTS

ACTIVITY/ SUB-ACTIV	DESCRIPTION	1 9 9 2					1 9 9 3					1 9 9 4														
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
40.03	PURCHASING & INVENTORY CONTROL																									
40.03.01	Computarized Stores Inventory System	P	xxxx	xxxx	xxxx	xxxx	xxxx																			
		A	xxxx	xxxx	xxxx	xxxx	xxxx																			
40.03.02	Material Control Procedures	P	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx														
		A																								
40.04	CUSTOMER SERVICES																									
40.04.01	Commercial Procedures	P	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx														
		A			xxxx	xxxx	xxxx																			
40.04.02	Level I Division Reorganization	P	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx														
		A	xxxx	xxxx	xxxx	xxxx	xxxx																			
40.04.03	AEB/Circle Reorganization	P	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx														
		A			xxxx	xxxx	xxxx																			

. = Milestone

ATTACHMENT 5

LIST OF ABBREVIATIONS / ACRONYMS

LIST OF ABBREVIATIONS / ACRONYMS

ABB/AST	Asea Brown Boveri/Advanced Systems Technology
ADB	Asian Development Bank
AEB	Area Electricity Board
BVI	Black and Veatch
CADPAD	Computer Aided Planning and Design
CADPAW Station	Computer Aided Distribution Planning Analysis Work Station
CGS	Computer Graphics Services
CIS	Customers Information System
CM&O	Construction, Maintenance & Operations
CSIS	Computerized Stores Inventory System
DEC	Digital Elect. Corporation
DLF	Deterministic Load Forecast
DRM	Distribution Record Map
EBASCO	Ebasco Overseas Corporation
EC/LM	Energy Conservation/Load Management
ELT	Expatriate Long Term
ELR	Energy Loss Reduction
EST	Expatriate Short Term
FAR	Fixed Amount Reimbursement
FSN	Foreign Service National
GOP	Government of Pakistan
HQ	Headquarters
HT	High Tension
IIP	Institutional Improvement Program
JBL	Jaffer Brothers Ltd.
LT	Low Tension
LOE	Level of Effort
OJT	On the Job Training
PC	Personal Computer
PDW	Power Distribution Wing
PIL	Project Implementation Letter
PLT	Pakistani Long Term
PSS	Pakistani Support Staff
RDB	Relational Database
RDBMS	Relational Database Management System
RDIC	Regional Director Inventory Control
RSE	Rural System Expansion
SDO	Sub Divisional Officer
SE	Superintending Engineer
SIS	Stores and Inventory System
SLF	Simulation Load Forecast
T&G	Transmission & Grid
TOR	Terms of Reference
UTM	Universal Transfer Mercator
USAID	United States Agency for International Development
WAPDA	Water & Power Development Authority
WCC	WAPDA Computer Center
WO	Work Order
WOS	Work Order System
XEN	Executive Engineer