

PD-ABL-094

94715

U.S. Agency for International Development
Private Sector Power Project
End of Contract Report
June 1994

End of Contract Report
Contract No. 391-0494-C-00-0543-00

Table of Contents

	Pg. No.
I. Introduction	1
II. Project Description	2
A. Objectives	2
B. Activities	2
III. Contract Performance	4
A. Institutional Development	4
B. Sub-Project Identification	12
C. Policy Analyses and Special Studies	13
D. Training	15
IV. Learning form the Experience - Policy Issues	16
A. Public Sector Considerations	16
B. Institutionalizing the PSEDF	16
C. A Role for Small Scale Power Projects	17

APPENDICES

Appendix I List of Contract Activities

Appendix II Summary Description of Contract Activities

Appendix III Contract Financing Expenditures

I. Introduction

The production and distribution of electric power in Pakistan is managed by the Water and Power Development Authority (WAPDA) except for the Karachi metropolitan area which is the responsibility of the Karachi Electric Supply Corporation (KESC). WAPDA is a government of Pakistan agency, while KESC is a limited stock company with the large majority of ownership held by agencies of the Government of Pakistan.

Power is critical to sustaining economic growth in Pakistan. WAPDA and KESC continue to demonstrate that they are not capable of meeting the increasing demand for power and chronic power outages and load shedding continue to be a major problem for the country. In the mid-1980's the evidence of widespread loadshedding indicated a peak shortage of over 1600 MW. The sixth five-year economic plan of the Government (1983-1987) had targets for power generation which were not met and the installed capacity of WAPDA and KESC in 1987 of 6,716 MW was short of the target by 22%. The peak shortage is now well over 2000 MW.

Electricity is only available to 40 % of the population of Pakistan and the per capita consumption of electricity per annum of 300kwh remains extremely low even by developing country standards. Conservative projections for annual average increases in power demand for the country are nearly 8% per annum and will remain so for the next 25 years, meaning that approximately 54,000 MW of additional power generation capacity will be needed by the year 2018.

The Government of Pakistan recognized almost a decade ago that public sector resources were not sufficient to meet the infrastructure financing requirements of the power sector and that the private sector must be the source for future investment to meet the power needs of the country over the long term. In 1985, the Government announced a policy which recognized a role for the private sector in power generation for Pakistan.

In 1988 the World Bank and USAID signed agreements with the GOP to provide support and assistance to implement the policy of participation of the private sector in power generation. The World Bank provided a large loan to a Private Sector Energy Development Fund (PSEDF) and other donors pledged resources to the PSEDF as well. PSEDF was to provide concessional, subordinate lynchpin financing to private sponsors of large scale power projects for Pakistan. The USAID also pledged resources to the PSEDF and agreed to provide technical assistance from a Private Sector Power Project (PSPP) in support of the private sector involvement in the Pakistan power sector.

II. Project Description

A. Objectives

The USAID funded PSPP was the lead activity for providing technical assistance to the overall effort to capture private sector investments for the power sector. The World Bank, the Overseas Development Agency (ODA) also provided resources for technical assistance to support the initiative. The PSPP assistance was to 1) support the GOP in mobilizing resources for co-financing private sector investments in power generation; 2) strengthen existing institutions and establish procedures for the review, approval, and administration of private sector proposals; and 3) to evaluate the adequacy of the various technical, financial, banking and environmental analyses which private sector sponsors would submit to the GOP during the sub-project review and approval process.

B. Activities

The PSPP had three components:

- 1) The first component consisted of a multi-year, institutional development effort. It was to provide training, technical assistance, and commodities to selected GOP entities tasked with the review and approval of private sector power project proposals and to the National Development Finance Corporation (NDFC) which was to administer the PSEDF on behalf of the Government of Pakistan.
- 2) The second component consisted of a \$135 Million contribution to the PSEDF for subordinated on-lending to private sector sponsors of approved power projects.
- 3) The third component was to finance special studies for private sector participation in the energy sector and to provide financial support to U.S and Pakistani companies for feasibility studies. It was anticipated that this component would encourage private sector participation. This component also funded the USAID contracted management of the PSPP.

Two institutional technical assistance contracts were solicited and awarded under PSPP. International Resources Group was selected to provide support to the Private Power Cell (PPC) within the Ministry of Water and Power, and to the WAPDA Private Power Office (WPPO) located at WAPDA in Lahore, and to the Coal Mining Cell in the Ministry of Petroleum and Natural Resources.

Price Waterhouse was selected to provide technical assistance to the Private Energy Division (PED) of NDFC. PED was established as a division of NDFC to administer the PSEDF on behalf of the GOP. It was also responsible for the financial and technical review of proposed private sector power projects to establish their financial viability for financing from PSEDF, and to monitor the construction and implementation of the projects until the loans had been repaid to PSEDF.

The Price Waterhouse contract was composed of four tasks.

1) Institutional Development

This task was to assist in upgrading the recently created PED to a permanent, professionally staffed division of NDFC within a four year time period. Two long-term resident advisors were assigned to continuously monitor the progress and development of PED and to identify areas requiring specific assistance. As needs were identified which were beyond the technical capabilities of the long term advisors, the advisors were to prepare Control Work Plans (CWP's) for consideration by PED and USAID for bringing short term advisors to provide additional assistance.

2) Sub-Project Identification, Review and Appraisal Assistance to NDFC and PED

During implementation of the private sector power generation initiative, many sub-projects were expected to be reviewed and considered for financing from PSEDF. Accordingly, Price Waterhouse was to provide short-term consultants to work with the staff of PED to review and appraise the financial, banking, technical and managerial viability of each project proposed for financing from PSEDF.

3) Policy Analysis and Special Studies

Price Waterhouse was to perform policy analyses and special studies as directed by USAID and NDFC/PED. These activities were to be directed towards specific policy and project support objectives. The studies were to be completed by short-term advisors and were to be related to private sector energy topics.

4) Training

Price Waterhouse was to develop a detailed Training Plan for the staff of PED based on a review of its staffing plans and related training requirements. The plan was to include training to be provided by Price Waterhouse short-term advisors, or by specialized training firms.

III. Contract Performance

A. Institutional Development

I. *Actions Taken*

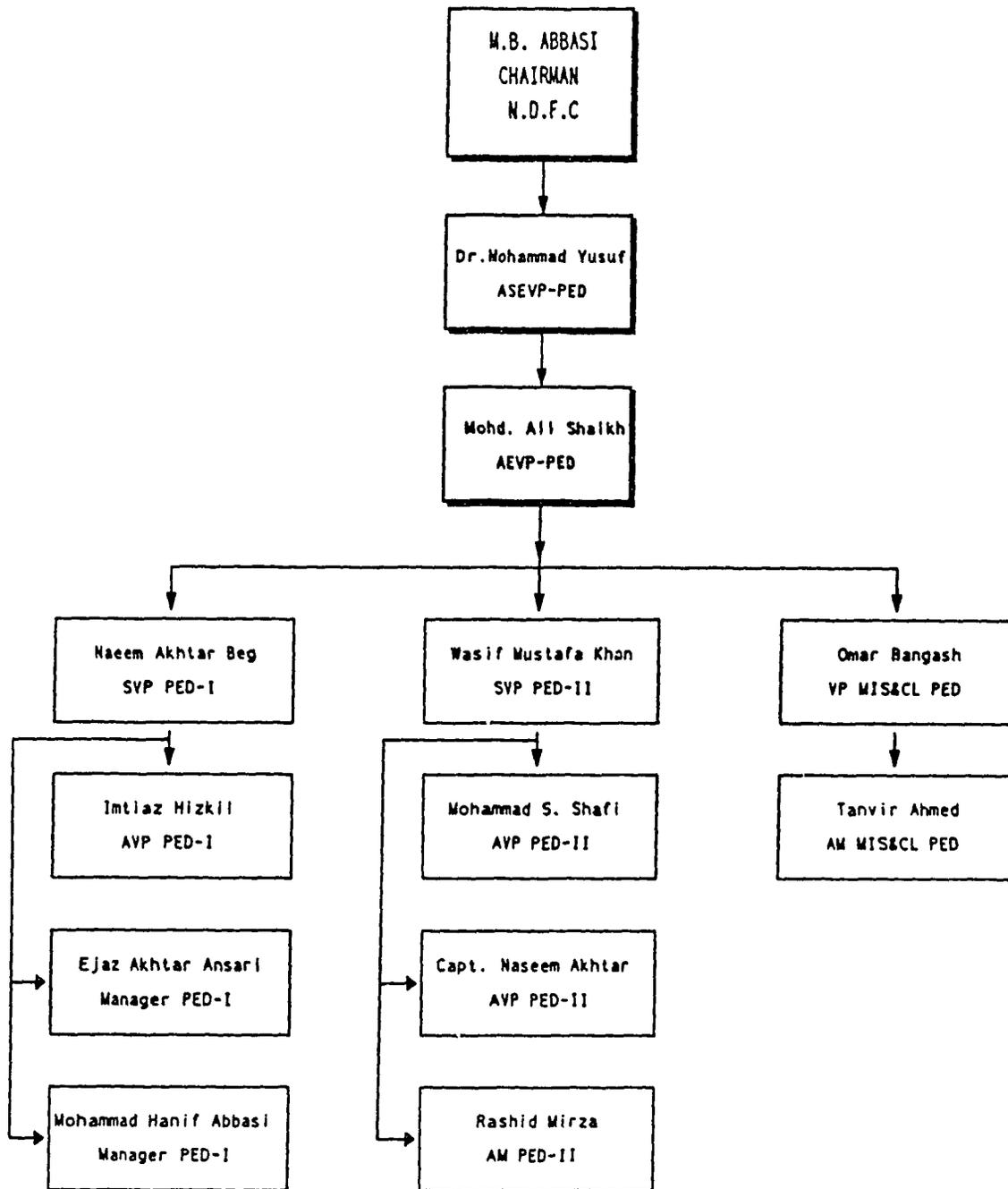
- Assisted PED in developing goals, objectives and action plan. Activities included the review of loan agreements, PED Operations Manual, and NDFC and GOP policies; development of a strategy statement for PED; review of the strength/weakness, and skills of the PED staff.
- Assisted and advised PED staff in performing their functions and as appropriate, advised PED regarding GOP's approach to the promotion and financing of private sector power projects and privatization of the electric power sector.
- Assisted with definition of functional and operating roles between PPC, WPPCO and PED.
- Assisted PED and World Bank in redrafting PED's Operations Manual which was subsequently approved by NDFC and the World Bank. During this process, the long term advisors were principle contributors in redrafting a majority of the sections of the operations manual.
- Assisted the GOP through PED in the development of the PPC brochure issued by the MWP and GOP titled "Investment Opportunities in Private Sector Power Generation Projects in Pakistan.
- Assisted PED in developing Appraisal Report Outlines for Coal, Oil, Gas and Combined Cycle Power Projects, and the Crescent Hydrocracker Project.
- Assisted the PPC through PED in the development of model Implementation and Power Purchases Agreements.
- Assisted the PED Technical Staff in their understanding of the Fuel Supply Agreement.
- Assisted the PED Technical Staff in their understanding of Operations and Maintenance Agreements.
- Assisted the PED staff in their understanding of the Power Purchase Agreement.

- Assisted USAID - Islamabad and PED in development of the policy, procedures and documents for the PSEDF Feasibility and Pre-Feasibility Study Fund administered by PED.
- Assisted PED in development of NDFC's brochure titled "Loan Facilities from Private Sector Energy Development Fund for Private Sector Power Projects" which was approved by the NDFC Board of Directors and World Bank.
- Assisted PED management in developing effective presentation skills. Participated in the preparation of reports and visual aids for presentation by PED to the NDFC Energy Committee and Board of Directors.
- Assisted in the preparation and justification of the PED office layout and arrangements required to accommodate PED.
- Assisted in identifying, specifying and the procurement of required computer hardware and software of PED.
- Met with prospective donors, prospective power developers and consultants to keep abreast of their activities and to explain the GOP's private sector power program and PSEDF requirements.
- Assisted PED in developing a data base for comparing project proposals reviewed by PED.
- Provided short term technical assistance to PED financial staff in the development of a computer model for appraising proposed power projects.
- Assisted NDFC and PED to determine their international funding requirements and proposed methods for accessing the international capital markets.
- Provided guidance in international procurement policies and procedures.

2. Achievements

- Staff resources assigned to PED are shown on the organization chart presented as Exhibit-A. Professional technical and financial staff have been allocated to the two analytical sections in PED and each unit has been exposed to the range of responsibilities associated with the development and analysis of the HUBCO project, and with the Hydrocracker Project.
- A computer model has been developed by PED financial staff and short term technical assistance to assist in the appraisal of proposed projects,

PED'S ORGANIZATION CHART



and adequate computer hardware and software has been provided to support all aspects of PED operations.

- PSEDF guidelines have been reviewed, modified and accepted, and the operations manual for use by PED has been finalized.
- The HUBCO project has proven to be a challenging training ground for PED staff in the appraisal and negotiation of projects for potential PSEDF financing. Projects now under consideration for PSEDF are smaller and less complex than HUBCO and should prove to be more manageable training experiences.
- Exhibit-B presents an assessment of the institutional development of PED as a unit to perform the various duties mandated to it as the administrator of the PSEDF. Given that only one project has been processed to the point of appraisal (HUBCO), PED has limited experience and knowledge to bring to bear on the important aspects of project monitoring and downstream administration of loan portfolio in the repayment mode. Exhibit-B represents what could be termed a Gap Analysis of PED.

Note: The Exhibit-B Assessment was prepared in collaboration with the two PED Senior Vice Presidents and their respective judgements are reflected in the analysis represented by the assessment.

ASSESSMENT OF PED CAPABILITY TO PERFORM DUTIES
FINANCIAL GROUP

TASK	CAPABILITY TO PERFORM		
	FULL	PARTIAL	MIN. EXPERIENCE
<u>Project Appraisal Activities - Analysis of:</u>			
Project Company & Management	SVP	AVP, Mgr, A-Mgr	
Appropriateness of Site Acquisition arrangements, suitability and required infrastructure	SVP	AVP, Mgr, A-Mgr	
Procurement Plan and Availability of PSEDF Funds	SVP	AVP, Mgr, A-Mgr	
Construction Contract Arrangements	SVP	AVP, Mgr, A-Mgr	
Fuel Supply Arrangements	SVP	AVP, Mgr, A-Mgr	
O & M Arrangements	SVP	AVP, Mgr, A-Mgr	
Power Purchase Arrangements		SVP, Mgr	
Shareholder Arrangements		SVP, Mgr	AVP, A-Mgr
Auditing of Pre-Organizational Expenses		SVP	AVP, Mgr, A-Mgr
Financing Plan - Structure	SVP	Mgr, A-Mgr	AVP
Financing Plan - Inter-Creditors Arrangements			
Risk Sharing Arrangements		SVP, AVP	Mgr, A-Mgr
Evaluation of Risk Distribution and Ability of Each Member to Assume their Risks		SVP	AVP, Mgr, A-Mgr
Detailed Analysis of Security Package	SVP	AVP, Mgr, A-Mgr	
<u>Project Cash Flow Analysis</u>			
Project Cash Flow Analysis	SVP	AVP, Mgr, A-Mgr	
Ratio Test Analysis	SVP	AVP, Mgr, A-Mgr	
Sensitivity Analyses	SVP	AVP, Mgr, A-Mgr	
<u>Mandating Insurance Requirements</u>			
Assess proposed Insurance Plan and Identify Changes/Additions to Meet PED Requirements	SVP	AVP, Mgr, A-Mgr	
<u>Negotiating Loan Agreement and Other Inter-Creditor Arrangements</u>			
Developing Loan Terms and Conditions	SVP	AVP, Mgr, A-Mgr	
Negotiating Loan Arrangement		SVP	AVP, Mgr, A-Mgr
Negotiating Trustee, Security Sharing and Other Inter-Creditor Arrangements			SVP, AVP, Mgr, A-Mgr
Preparation of Project Appraisals	SVP	AVP, Mgr, A-Mgr	

ASSESSMENT OF PED CAPABILITY TO PERFORM DUTIES
FINANCIAL GROUP

TASK	CAPABILITY TO PERFORM		
	FULL	PARTIAL	MIN. EXPERIENCE
<u>Financing Closing</u>			
Review of Security Package and Documents for Coherence		SVP, AVP	
Final Review of Loan Agreement for Coherence with Security Package		SVP, AVP, Mgr, A-Mgr	
Setting Up Audit and Compliance Procedures			SVP, AVP, Mgr, A-Mgr
<u>Loan Recovery and Supervising Project Implementation and Monitoring</u>			
<u>Implementation Phase</u>			
Review/Approve LC's and Procurement	SVP		AVP, Mgr, A-Mgr
Process LC's and Disbursements	SVP	Mgr	AVP, A-Mgr
Review Monthly Progress Reports		SVP	AVP, Mgr, A-Mgr
Review Project Expenditure Reports and Check Documentation		SVP	AVP, Mgr, A-Mgr
Prepare Periodic Project Reports		SVP	AVP, Mgr, A-Mgr
Conduct Periodic Discussions with Project Company and Contractors to Identify and Assist in the Resolution of Problems and Issues.		SVP	SVP, AVP, A-Mgr
Conduct Studies of Potential Problems and Issues which may have a Major Financial Impact and/or Breach in Loan Conditions			SVP, AVP, Mgr, A-Mgr
Where PsEDF Loan is breached, Collaborate With Other Lenders to Remedy or Regularize PeD's Position			SVP, AVP, Mgr, A-Mgr
<u>On-Going Monitoring Phase</u>			
Monitoring Financial Performance		SVP	AVP, Mgr, A-Mgr
Assess Periodic In-House Audited Financial Statements		SVP	AVP, Mgr, A-Mgr
Evaluate Adherence to Contractual Arrangements			
Prepare Periodic Financial Reports		SVP	AVP, Mgr, A-Mgr
Work outs of Non-Performing Loans			SVP, AVP, Mgr, A-Mgr
<u>Raising Money in Domestic and International Markets and Conducting Loan Syndications</u>			SVP, AVP, Mgr, A-Mgr

ASSESSMENT OF PED CAPABILITY OF PERFORM DUTIES
TECHNICAL GROUP

TASK	CAPABILITY TO PERFORM		
	FULL	PARTIAL	MIN. EXPERIENCE
<u>Project Appraisal Activities - Analysis of:</u>			
Project Technical Configuration	SVP	AVP-I	AVP-S, Mgr
Project Company & Management		SVP, AVP-I	AVP-S, Mgr
Appropriateness of Technology	SVP	AVP-I	AVP-S, Mgr
Appropriateness of Site Acquisition arrangements, suitability and required infrastructure	SVP, AVP-I		AVP-S, Mgr
Project Design	SVP	AVP-I	AVP-S, Mgr
Cost Estimating		SVP, AVP-I	AVP-S, Mgr
Procurement Plan	SVP, AVP-I	AVP-S	Mgr
Principle Equipment Sources	SVP, AVP-I	AVP-S	Mgr
Construction Contract Arrangements	SVP	AVP-I	AVP-S, Mgr
Environmental and Social Impacts			SVP, AVP-I, AVP-S, Mgr
Fuel Supply Arrangements	SVP, AVP-I, AVP-S		Mgr
O & M Arrangements		SVP, AVP-I	AVP-S, Mgr
Power Purchase Arrangements	AVP-I	SVP	AVP-S, Mgr
Analysis of Risk Sharing		SVP, AVP-I	AVP-S, Mgr
Sensitivity Analyses		SVP, AVP-I	AVP-S, Mgr
Developing Loan Terms and Conditions			SVP, AVP-I, AVP-S, Mgr
Preparation of Project Appraisals		SVP, AVP-I	AVP-S, Mgr
<u>Supervising ICB and/or LCB Procurement</u>			
Procurement Planning and Synchronization	SVP, AVP-I	AVP-S	Mgr
Competitive Tendering	SVP	AVP-I	AVP-S, Mgr
Preparation of Bidding Documents and Bidder Conference	SVP	AVP-	AVP-S, Mgr
Bid Openings, Evaluation and award	SVP	AVP-I	AVP-S, Mgr
Bid Evaluations and awards	SVP	AVP-I	AVP-S, Mgr

ASSESSMENT OF PED CAPABILITY OF PERFORM DUTIES
TECHNICAL GROUP

TASK	CAPABILITY TO PERFORM		
	FULL	PARTIAL	MIN. EXPERIENCE
<u>Loan Recovery and Supervising Project Implementation and Monitoring</u>			
<u>Implementation Phase</u>			
Review/Approve LC's and Procurement	SVP		
Review Monthly Progress Reports		SVP, AVP-I	AVP-S, Mgr
Review Physical Progress - Periodic Site Visits		SVP, AVP-I	AVP-S, Mgr
Review Project Expenditure Reports and Check Documentation		SVP, AVP-I	AVP-S, Mgr
Prepare Periodic Project Reports		SVP, AVP-I	AVP-S, Mgr
Conduct Periodic Discussions with Project Company and Contractors to Identify and Assist in the Resolution of Problems and Issues.			SVP, AVP-I, AVP-S, Mgr
Conduct Studies of Potential Problems and Issues which may have a Major Financial Impact and/or Breach in Loan Conditions			SVP, AVP-I, AVP-S, Mgr
<u>On-Going Monitoring Phase</u>			
Monitoring Technical Performance			SVP, AVP-I, AVP-S, Mgr
Evaluate Adherence to Contractual Arrangements			SVP, AVP-I, AVP-S, Mgr

B. Sub-Project identification, review and appraisal assistance.

The Contract was to provide specialized short-term consultants to work with the staff of the NDFC/PED to review and appraise the financial, banking, technical and management viability of each sub-project as required by PED.

1. Actions

- Assisted PED staff, individually and collectively, in the review, analysis and commenting on the feasibility study and technical and financing documents of proposed projects such as the HUBCO, ABTECH, Fauji, Kabirwalawa and Uch Power Projects, and the Crescent Hydrocracker Project.
- Assisted PED as advisors to the GOP in the GOP - HUBCO negotiations which were held over the 1990 - 1992 Period. The resident advisors supported by short-term technical and legal advisors participated in extensive meetings, and reviewed and drafted comments on the various loan documents for PED. The technical, legal and financial advisors were principle contributors to the analysis of the technical and business points of the documents.
- Assisted the PED staff in their review of the Ewbank Preece appraisal of the HUBCO Project.
- With the aid of short term legal assistance, the resident advisors prepared a comprehensive appraisal report on the HUBCO Project for PED.
- Reviewed and commented, as requested, on public power projects including low head hydro, solar and geothermal project proposals for PED.
- Conducted analyses of liquidated damages and project risk during the pre-operational phase of the HUBCO project.
- Conducted sensitivity analyses including the effects of project delays, project cost overruns, increased heat rate and fuel consumption, plant factor, station load and capacity shortfall on the economic viability of the HUBCO project.
- Conducted analysis of HUBCO project cost and financing plans; including effects of tied and untied funding, source and application of currencies and exchange rate movements.

- Analyzed wording for critical covenants in HUBCO Agreements.
- Provided for preparation and editing of early version of NDFC HUBCO appraisal.
- Provided short term legal assistance for negotiation of inter-creditor arrangements and review of security package of HUBCO.
- Provided short term technical assistance to NDFC in preparation of compensation values and indexation formulae for HUBCO.
- Provided short term technical assistance to review and negotiate HUBCO insurance package.
- Provided short term legal assistance to PPC/MWP in relation to HUBCO.
- Assisted PED in the use of the computer model to appraise the HUBCO project.
- Provided short term technical assistance to analyze UCH I technical proposal.

2. *Achievements*

- The HUB project has been approved for financing from PSEDF.
- The UCH I Project has been appraised for its technical aspects.

C. *Policy Analyses and Special Studies*

The Contract was to prepare policy analyses and special studies as directed by the cognizant AID Project Office. These activities were to be directed towards specific policy and project support objectives.

1. *Actions*

- Provided short term technical assistance for the preparation of a report on the "Insurance aspects of Private Power Project in Pakistan.
- Contracted with Interbank for the preparation of a document entitled "concept of Energy Modaraba Funds - A Feasibility Report".
- Developed an implementation plan for the privatization of the Faisalabad area electric board.

- Prepared a feasibility study for the privatization of the Karachi Electricity Supply Corporation through a public share offering.
- Provided support to the corporatization of the Jamshoro Thermal Power Station.
- Prepared detailed feasibility study for development of an energy modaraba.
- Sponsored orientation trip for two NDFC officials to visit Co-generation plants in Hawaii.
- Updated the financial records of Jamshoro and Kot Adu power plants in anticipation of their privatization.
- Provided technical assistance to Government of Sindh to analyze the SKODA proposal for the development of an integrated coal mining and power plant project
- Sponsored trip of two Sindh Government officials to Washington and New York.
- Hosted luncheon for 180 attendees of Association of Development Financial Institutions for Asia and Pacific Annual Conference
- Sponsored travel of NDFC official to Washington
- Sponsored travel of NDFC official to Bond Conference in Bangkok, Thailand.

2. *Achievements*

- Contractor was responsive to all of the varied specific requests and directives of USAID to conduct special studies and actions under this Task, and committed considerable resources in terms of LOE and associated costs to the studies and actions.

D. Training

The Contractor was to develop a detailed Training Plan for the officials of PED based on its staffing plans and training needs. The Training Plan was to be submitted to USAID and PED for approval within four months of contract award. The Plan was to include training provided by the Contractor, by short-term advisors, or by specialized training firms. During the first 12 months of the contract, the Contractor was to formulate the training program of at least four persons, identified by the Contractor to form the nucleus for the PED implementation staff.

The Contractor's responsibilities under this Task were to 1) identify candidates for in-country, third country and US participant training; 2) identify and/or design training programs for the candidates; and 3) facilitate the GOP and USAID approval of such candidates.

1. *Actions*

- Short Term Insurance Advisor presented a two-day workshop on Private Sector Power Insurance Requirements in July 1991. The workshop was attended by PED, PPC and WPPPO representatives.
- Sponsored the attendance of five selected PED staff to attend the Interbank Training Seminar on Investment Banking.
- Participated in the development and presentation of a workshop on "Evaluation of Private Sector Power Proposals for Power Generation." The workshop was jointly presented by IRG and PW in Quetta in October 1991.
- Provided short term technical advisors to provide informal training sessions with PED staff in the use of the computer model for appraising the HUBCO project.
- Through active, on-the-job interaction with PED staff, assisted the PED staff in developing their analytical technical and communication skills.
- Arranged for attendance of NDFC Senior Executives to attend CITIBANK Privatization Seminar in New York, attend World Bank, IMF and EXIM meetings, and to visit a cogeneration project site in the USA.
- Arranged for Chief Accountant to attend International Accountants Conference in Washington, DC.
- Arranged for attendance of the NDFC Senior officials to attend conferences and meetings in Washington and New York.

- Conducted five-day seminar on accessing International Capital Markets.
- Conducted four-day seminar in Marketing Debt Securities Abroad.

2. Achievements

Article IV of the Contract required the Contractor to submit a detailed training plan within four months of the contract award for upgrading the professional skills of the PED staff. In accordance with the Contract, the Training Plan was submitted to PED and USAID for approval. PED management, however, appeared uninterested in formalizing a Training Plan and did not act upon the document.

Without an approved program for training PED personnel, the Contractor organized training activities primarily in response to specific technical or financial issues that arose over the course of the Contract period. The Contractor organized numerous seminars, workshops and other training activities to build the capabilities of PED staff to deal with the issues attendant to administering the PSEDF and, more generally, to promoting private sector power in Pakistan.

IV. Learning from the Experience - Policy Issues

A. Public Sector Consideration

The World Bank and USAID should examine the advisability of promoting the policy of using public sector entities to initiate and implement private sector related activities. None of the GOP agencies involved in the privatization of the power sector in Pakistan have exhibited strong interest in transferring their inherent responsibilities for providing power over to the private sector. Considerable disincentives exist among WAPDA, MWP, and NDFC for them to relinquish their respective roles as public sector providers of power and lenders to the sector. When the GOP decision was made almost a decade ago to privatize the power sector, the World Bank and the other donors should have given serious consideration to supporting that policy by establishing a private sector institution to implement the actions attendant to achieving the objectives of the policy. Using this approach may well have resulted in some power plants having been built and some of the WAPDA empire having been actually privatized in the decade since the policy was established.

B. Institutionalizing the PSEDF

The PSEDF should have been viewed as a short-term stop-gap measure to jump-start the development and financing of private sector power projects in the country. In fact, however, PSEDF has become institutionalized as a major funding source for large scale power projects in Pakistan and NDFC is now engaged in a considerable effort to somehow replenish PSEDF to meet the commitments NDFC has made to provide concessional, subordinated financing for projects under active consideration.

Unless the World Bank or other donor agencies continue to provide the concessionary resources to replenish PSEDF, NDFC will be in the position of meeting its commitments to PSEDF by borrowing, if possible, at commercial terms and relending the resources at the concessionary terms of PSEDF.

Consideration should be given to phasing out PSEDF and moving toward withdrawing GOP and GOP owned development finance institutions from the financing of power projects and letting the private sector finance private sector initiatives. The incentives established by the GOP to attract private sponsors to participate in the power sector in Pakistan are sufficiently attractive to accomplish their purpose.

C. A Role for Small Scale Power Projects

USAID and the World Bank directed their efforts and their resources toward the development of large scale power plants to meet the power shortfall in Pakistan, completely disregarding the role that smaller scale power projects could have played in the meeting the immediate needs of the country. The PSEDF was structured and fully committed to large scale projects, leaving no avenues for financing of a large number of small projects that were being considered by private investors. It is almost a certainty that some of the PSEDF funds would have been utilized by now and some additional power provided to the national grid if consideration and support had been given to small scale power projects.

D. Project Management and Contract Administration

1. Article IV of the contract required the contractor to submit a time-phased, life of project work plan within sixty days of contract award and to submit an updated and revised work plan annually during the life of the project. In addition, the contract required the contractor to submit a detailed training plan within four months of the contract award. The procedure during the course of the project was to submit both the training plan and annual work plans to PED and USAID for approval.

In accordance with this practice, the contractor submitted draft work plans and a training plans to PED. The work plan for the period May 1990 - April 1991 was not approved by PED and therefore not forwarded to USAID for approval. A work plan for the period May 1991 - April 1992 was prepared by the contractor and submitted to PED for review and approval. This document was not acted upon or approved by PED and therefore not forwarded to USAID for approval. Another work plan was prepared for 1993-1994 and again the plan was not approved by NDFC or USAID. The contractor therefore worked during the entire period contract period of four years without an approved work plan. Approved annual work plan would have been valuable management tools for planning and implementing the contract, both for the contractor and for USAID.

2. USAID should examine the advisability of having split its technical assistance into two contracts. Administratively, it was awkward for USAID to manage this project since the respective roles to be played by the two contractors overlapped and caused confusion. Furthermore, the coordination between the two contract groups was difficult even though the groups enjoyed good relations. Consideration should be given in the future to providing all the technical assistance from one source when the nature of the assistance is so similar.

3. The utility of Control Work Plans (CWPs) to provide administrative and technical control over contractor activities should be examined. In the case of PSPP and the Price Waterhouse contract, it amounted to unnecessary oversight and control over the routine actions of the contractor. This use of CWPs caused a shift in emphasis from Price Waterhouse to USAID in determining activities and tasks required for project implementation.

LIST OF CONTRACT ACTIVITIES
Contract 391-0494-00-0543-00
JUNE 30, 1994

CWP	Name	Status	Start/ Prep Date	Estim. Comple. Date
1	Preparation of Generic Loan Documents	Closed	May 1991	Oct 1992
2	Insurance Aspects of Private Power Projects	Completed	Jun 1991	Dec 1991
3	Computer Model for Appraisal of Power Generation Projects	Closed	Jan 1991	Nov 1992
4	Negotiation of Inter-creditor Arrangements and Review of Security Package of HUBCO.	Closed	May 1991	Oct 1992
5	Preparation of Compensation Values and Indexation Formula.	Completed	Jun 1992	Dec 1992
6	Policy Framework for Project Acquisition Costs	Withdrawn	-	-
7	Auditing of HUBCO Pre-Organizational Project Expenses	Withdrawn	-	-
8	Systems and Procedures for Monitoring Project Implementation	Withdrawn, new CWP (# 18) issued	-	-
9	Computer Model for Project Operation, Monitoring and Reporting	Withdrawn	-	-
10	Acquisition of Technical Reference Materials for NDFC/PED	Withdrawn	-	-
11	Crescent Petroleum Hydrocracker Project Appraisal	Withdrawn	-	-
12	Preparation of Modaraba Concept Piece	Completed	Jan 1992	Aug 1992
13	Absorptive Capacity of Capital Markets for Debt Instruments in Pakistan	Withdrawn	-	-
14	Development of Case Study for Presentation to PPC, WPPC and PED	Completed	Jun 1991	Oct 1991
15	Development and Presentation of a Project Appraisal and Finance Course	Completed	March 1993	June 1993
16	Development and Presentation of a Procurement Course	Withdrawn	-	-
17	Corporation and Privatization Support to Jamshoro Thermal Power Station (JTSP).	Completed	Oct 1991	Dec 1992
18	Preparing Systems and Procedures for Monitoring Projects and Project Monitoring Course	Closed	June 1993	March 1994
19	Computer Applications	Withdrawn	-	-
20	Interbank Project Finance Seminar for PED Personnel	Completed	Nov 1991	Nov 1991
21	Institutional Assessment of PED	Withdrawn	-	-
22	Audit of Computer Model	Withdrawn	-	-
23	This number not used	-----	-	-
24	HUBCO Due Diligence Review of Security Package	Completed	May 1992	Dec 1992
25	HUBCO Review Negotiation of Insurance Package Recommendation by Price Waterhouse.	Closed	May 1992	Dec 1992
26	Legal Assistance to be provided to PPC/MWP.	Closed	Apr 1992	Oct 1992
27	Editing and Final Preparation of the HUBCO Appraisal.	Completed	May 1992	July 1992

LIST OF CONTRACT ACTIVITIES
Contract 391-0494-00-0543-00
JUNE 30, 1994

CWP	Name	Status	Start/ Prep Date	Eshm. Comple. Date
28	Attendance of NDFC's Chief Accountant at Int'l Accountants Conference in Washington, D.C.	Completed	July 1992	Oct 1992
29	Attendance of three of NDFC's Senior Executives to Citibank conference in New York, and World Bank and Eximbank Meetings in Washington D.C.	Completed	July 1992	Oct 1992
30	Corporatization and privatization support to Kot Addu Power station	Withdrawn	-	-
31	Detailed feasibility study for development of energy modaraba	Completed	Jan 1993	June 1993
32	Technical assistance to support the technical appraisal of UCH I Project	Completed	Aug 1993	Oct 1993
33	Technical assistance to support the technical appraisal of the Kabiwala Project	Withdrawn	-	-
34	Technical assistance to Review and recommend modifications to PED Guidelines and Operations Manual	Completed	April 1994	June 1994
35	Study to determine feasibility of issuing NDFC energy bonds	Withdrawn	-	-
36	Orientation Trip for two NDFC officials to visit Co-generation facilities in Hawaii	Completed	Jan 1993	June 1993
37	Attendance of two PED officials to AIC Conference on Cogeneration and Alternate Power Sources in Asia in Kuala Lumpur, Malaysia.	Completed	June 1993	June 1993
38	Attendance of NDFC Chairman at meetings with Co-financers of PSEDF in Washington, D.C.	Withdrawn	-	-
39	Review of Jamshoro Power Station Accounting Procedures Manual	Completed	Oct 1993	Feb 1994
40	Update the statement of Assets and Liabilities - Jamshoro Power Station	Completed	Oct 1993	March 1994
41	Update the statement of Assets and Liabilities - Kot Addu Power Station	Completed	-	-
42	Presentation of a training program in International Procurement of goods and services.	Completed	March 1994	May 1994
43	Provision of Capital Markets Advisor to NDFC	Completed	March 1994	June 1994
44	Management Information System for NDFC Infrastructure Credit	Withdrawn	-	-
45	Senior Financial Consultant to assist Infrastructure Credit Facility to determine Capital and Cash Flow requirements	Withdrawn	-	-
46	Advisor to support NDFC in organization Development, Operations and Personnel Recruitment for proposed Infrastructure Credit Facility	Withdrawn	-	-
47	Presentation of Capital Markets Seminar	Completed	March 1994	April 1994
48	Travel of NDFC official to Thailand	Completed	May 1994	May 1994
49	Hosting luncheon for ADFIAP	Completed	April 1994	April 1994
50	Technical assistance to Sindh Gov't	Completed	June 1994	June 1994
51	Travel of NDFC Official to U.S.	Completed	June 1994	June 1994
52	Seminar on Marketing Debt Securities Abroad	Completed	June 1994	June 1994
53	Travel of two Sindh officials to U.S.	Completed	June 1994	June 1994

SUMMARY DESCRIPTION OF CONTRACT ACTIVITIES
BY CONTROL WORKPLANS

- CWP 1 Preparation of Generic Loan Documents:
- OBJECTIVE: (CLOSED)
Prepare a generic loan agreement, security related documents, standby credit agreement, debt reserve standby letter of credit, etc., for use by PED in all power projects.
- CWP 2 Insurance Aspects of Private Power Projects in Pakistan
- OBJECTIVE: (COMPLETED)
Recommend a standard insurance package for PED-financed private power generation projects in Pakistan.
- CWP 3 Development of a Computer Model for Appraisal of Power Generation Projects
- OBJECTIVE: (CLOSED)
Develop a proprietary model for use by PED in the financial and technical evaluations of power projects, with flexibility for modification and application to other energy and resource projects.
- CWP 4 Assist NDFC/PED in the Negotiation of Inter-Creditor Arrangements
- OBJECTIVE: (CLOSED)
Provide assistance in the negotiation of loan and security related documents vis-a-vis HUBCO as well as assistance in the negotiation of Inter-Creditor arrangements vis-a-vis senior lenders to HUBCO.
- CWP 5 Preparation of Compensation Values and Indexation Formulae
- OBJECTIVE: (COMPLETED)
Draft (a) Clause 22, "Consequences of Termination," of the Implementation Agreement, including Annex (7) containing the payments due, and payable by the GOP, to HUBCO in the event that the Agreement is terminated early; and (b) Schedule VI of the Power Purchase Agreement including formula for adjustment of tariff after Commercial Operations Date and throughout the operating period.
- CWP 6 Recommend a Policy Framework to Deal with Project Acquisition Costs
- WITHDRAWN
- CWP 7 Auditing of HUBCO Pre-Organizational Expenses
- WITHDRAWN

CWP 8 Systems and Procedures for the Technical Review and Monitoring of Projects During their Implementation Phase

WITHDRAWN - INCLUDED IN CWP 18

CWP 9 Computer Model for the Financial Review, Monitoring and Reporting of Projects During their Operational Phase

WITHDRAWN

CWP 10 Acquisition of Technical Reference Material

WITHDRAWN

CWP 11 Short Term Technical Assistance for the Appraisal of the Crescent Petroleum Hydrocracker Project for NDFC/PED

WITHDRAWN

CWP 12 Preparation of a Modaraba Concept Piece

OBJECTIVE: (COMPLETED)

Prepare a concept piece for the creation of two (2) Modaraba Funds, the first for \$100 million denominated in Pakistani Rupees; the other for \$50 million denominated in U.S. dollars to take equity and quasi-equity positions in private power projects.

To date, equity is being raised on an ad hoc basis: some is provided by sponsors, the balance through the issuance of securities which are placed in the capital markets. The capitalization of private power projects has been delayed by a lack of available financial instruments; consents required to issue specialized securities suitable for private power projects; or market acceptance issues. A Modaraba Fund would circumvent many of these problems.

CWP 13 Absorptive Capacity of Domestic Capital Markets for Debt Instruments

WITHDRAWN

CWP 14 Development of Case Study for Presentation to PPC, WPPC and PED

OBJECTIVE: (COMPLETED)

Introduce participants to the evaluation of power projects and negotiation of the tariff. Developed in collaboration with PPC, this case study will cover the principles of private power promotion, technical and financial appraisal of projects, analysis of financial plans including equity structuring, tariff reconciliation, risks analysis and mitigants, etc. The case study will permit the participants to collaborate closely during the presentations, develop interactive team building and attain a better understanding of policy issues.

OBJECTIVE: (COMPLETED)

This course will introduce the participants to the principles of Project Appraisal and Finance applied to different kinds of power plant operations. It will include an overview of project finance, criteria for successful project financing, use of financial advisors, the offering memorandum, lender risks, contacting lenders and investors, credit risk appraisal, types of capital and debt, sources of equity and debt, types of instruments used, term loans, private placements, construction financing, guarantees, political risk guarantees, reserves-oriented financing, drilling funds, etc.

CWP 16 Procurement Course

WITHDRAWN

CWP 17 Corporatization and Privatization Support to Jamshoro Thermal Power Station

OBJECTIVE: (COMPLETED)

The two (2) objectives of this CWP are to:

- (1) Provide accounting expertise to WAPDA, IRG and Hunton and Williams in completing the corporatization of the Jamshoro Thermal Power Station (JTPS). This support involves determining the appropriateness of the accounting policies and procedures used by WAPDA in capitalizing and allocating costs to the various categories of assets.
- (2) Review and evaluate the organizational structure to identify the design that would allow the JTPS to operate as an independent entity, while providing for the flexibility that it will require to respond to its various needs in the short- and the long-term future.

CWP 18 Preparing Systems and Procedures for Monitoring Projects and Project Monitoring Course

OBJECTIVE: (CLOSED)

The two (2) objectives of this CWP are to:

- (1) Develop systems and procedures for the technical review and monitoring, from a Lender's perspective, of PED financed private generation projects; and
- (2) Develop and present a course to introduce the participants (from NDFC/PED, PPC and WPPO) to the principles and techniques used by Lenders to monitor generating projects.

WITHDRAWN

CWP 20 Interbank Project Finance Seminar

OBJECTIVE: (COMPLETED)

Train selected NDFC/PED staff in limited recourse finance and broaden their exposure to the investment banking environment. Sponsored by Interbank in connection with David Jeffries Associates of New York, the course includes case studies to deepen understanding of such topics as analyzing financial statements, tools and techniques of financial statement analysis, use of ratios, net working investment analysis, use of industry data, preparing forecasts, capital structure and debt issues, capital structure options, valuation techniques, overview of capital markets, securities origination process, financial instruments and their attributes, choice of financial instruments, and conduct of private placements.

CWP 21 PED Organization Assessment

WITHDRAWN

CWP 22 Audit of Computer Model

WITHDRAWN

CWP 23 This CWP Number was not used

CWP 24 Due Diligence Review of HUBCO Security Package

OBJECTIVE: (COMPLETED)

Conduct a due diligence review of all agreements forming part of the HUBCO security package. The review will: (a) identify events which could cause debt service interruptions or other special risks which could lead to cash flow problems and (b) identify points or provisions which are detrimental to the interest of the GOP, NDFC or the World Bank, and suggest remedial measures.

CWP 25 Review and Negotiation of HUBCO Insurance Package

OBJECTIVE: (CLOSED)

With respect to the HUBCO insurance package being recommended by the project sponsors: (a) confirm that the package fully conforms with stipulations of PED's operations manual, loan agreement and Co-financiers agreements and (b) certify that the package fully covers the acquisition, transportation, construction and operation stages of the HUBCO project.

CWP 26 Legal Assistance to PPC/MWP

OBJECTIVE: (CLOSED)

Provide legal assistance to the PPC in the drafting, negotiating and amending of the HUBCO security package. Terms of reference include assistance in negotiation of the Implementation Agreement, Power Purchase Agreement, Fuel Supply Agreement and other ancillary documents.

CWP 27 Editing and Final Presentation of the HUBCO Appraisal

OBJECTIVE: (COMPLETED)

Provide assistance to PED in the final drafting and editing of the HUBCO appraisal to be delivered to the NDFC board.

CWP 28 Attendance of NDFC Chief Accountant at Conference in U.S.

OBJECTIVE: (COMPLETED)

Attendance by NDFC's Chief Accountant at a conference sponsored by the International Federation of Accountants to be presented in Washington, D.C. October 11-17, 1992.

CWP 29 Attendance of NDFC Senior Executives at Conference and Meetings in U.S

OBJECTIVE: (COMPLETED)

Attendance by two of NDFC's senior executives at (1) a Citibank-sponsored conference on Pakistan's Privatization Program and Investment opportunities in Pakistan, to be held in New York on September 18, 1992, and (2) meetings in the U.S., U.K. and France with the World Bank, Exim Bank, and other organizations.

CWP 30 Corporatization and Privatization support for Kot Addu Thermal Power Station

WITHDRAWN.

CWP 31 Feasibility study for establishing a Modaraba Fund (s) for financing Private Sector Power and Energy Projects.

OBJECTIVE: (COMPLETED)

To conduct in depth analyses and document the feasibility of establishing a Modaraba Fund(s) for financing private sector power and energy projects in Pakistan.

To determine the optimum size of the proposed Modarab(s) and the composition and currency mix most appropriate and marketable in Pakistan and elsewhere.

Develop the necessary data and information to formally apply for a Modarabas with the Corporate Law Authority in the Ministry of Finance of the Government of Pakistan.

25

- CWP 32 Technical Assistance to support the technical Appraisal of the UCH I Power Project
- OBJECTIVE: (COMPLETED)
- To assist PED Technical staff in the engineering appraisal of the feasibility study submitted to support the developer's loan application. Technology transfer and training of PED staff will occur.
- CWP 33 Technical Assistance to support the technical Appraisal of Kabirwala Power Project
- OBJECTIVE: (WITHDRAWN)
- To assist the PED technical staff in the engineering appraisal of the feasibility study submitted to support the developer's loan application.
- CWP 34 Technical Assistance to review the PED operations manual and PSEDF Guidelines
- OBJECTIVE: (COMPLETED)
- To Assist PED in the review of the PED Operations Manual and PSEDF Guidelines in order to make recommended changes to NDFC and IBRD.
- CWP 35 Technical Assistance to determine feasibility of NDFC Issuing Energy Bonds
- OBJECTIVE: (WITHDRAWN)
- To provide short term technical assistance to NDFC to determine the feasibility of issuing foreign exchange energy bonds for financing of private sector power projects.
- CWP 36 To Sponsor the travel of two NDFC officials
- OBJECTIVE: (COMPLETED)
- To assist two senior NDFC officials to travel to Hawaii to participate in an orientation to co-generation applications at sugar cane processing facilities.
- CWP 37 Sponsor participation of two PED officers at Power Conference in Malaysia
- OBJECTIVE: (COMPLETED)
- To send the head of PED and one other senior officer to participate in a conference on co-generation and alternative power sources in Asia.

CWP 38 To Sponsor travel of NDFC Chairman at meeting in Washington, Newyork and London relating to Co-Financier sponsors to the PSEDF.

WITHDRAWN

CWP 39 Review of Jamshoro Power Station Accounting Procedures Manual.

OBJECTIVE: (COMPLETED)

To Review the Jamshoro Accounting Procedures Manual prepared by Price Waterhouse under CWP 17 to determine the extent to which the Accounts and Account codes are compatible with WAPDA Accounts and what adjustments would be necessary to consolidate the financial statements into those of WAPDA.

CWP 40 Update the Statement of Assets and Liabilities of Jamshoro Power Station.

OBJECTIVE: (COMPLETED)

To update statements in order to transform the unit into a separate profit center and operate the unit as if it were an independent entity.

CWP 41 Update the Statement of Assets and Liabilities of Kot Addu Power Station.

OBJECTIVE: (COMPLETED)

To update statements in order to transform the unit into a separate profit center and operate the unit as if it were an independent entity.

CWP 42 International Procurement Course

OBJECTIVE: (COMPLETED)

To develop and present a training course which will give NDFC staff and GOP officials an understanding of the processes required for international tendering and procurement of goods and services

CWP 43 Capital Markets Advisor

OBJECTIVE: (COMPLETED)

To assist NDFC in developing a strategic plan for meeting the capital and credit requirements for the proposed Infrastructure Credit Facility.

21

- CWP ... Management Information System
- OBJECTIVE: (WITHDRAWN)
- To develop an Integrated Management Information System for the proposed Infrastructure Credit Facility.
- CWP 45 Senior Financial Consultant
- OBJECTIVE: (WITHDRAWN)
- To assist the proposed Infrastructure Credit Facility to determine its capital and cash flow requirements for the next five years.
- CWP 46 Organization Development, Operations and Personnel Recruitment Advisors
- OBJECTIVE: (WITHDRAWN)
- To assist NDFC to develop the organization and to recruit professional staff for the proposed Infrastructure Credit Facility.
- CWP 47 Capital Markets Seminar
- OBJECTIVE: (COMPLETED)
- To develop and present a training course which will give NDFC and GOP officials a broader knowledge of capital markets, institutions and instruments and their relationship to infrastructure development projects; to understand the basic principles of investing in the capital markets and what attracts international capital.
- CWP 48 Travel of NDFC official to Bond Conference in Thailand
- OBJECTIVE: (COMPLETED)
- CWP 49 Host Luncheon for 180 attendees of Annual conference of Association of Development Financing Institutions for Asia and Pacific
- OBJECTIVE: (COMPLETED)
- CWP 50 Financial Analysis and Technical Analysis Assistance to Sindh Government for review of proposal to development coal reserves in Sindh
- OBJECTIVE: (COMPLETED)
- CWP 51 TRAVEL OF NDFC OFFICIAL TO WASHINGTON, D.C.
- OBJECTIVE: (COMPLETED)

CWP 52 Seminar On Marketing Debt Securities Abroad

OBJECTIVE: (COMPLETED)

To expose NDFC officials to the actions necessary to attract International funding for their projects.

CWP 53 Travel of Two Sindh Government Official To Washington, D.C.

OBJECTIVE: (COMPLETED)

CONTRACT FINANCIAL EXPENDITURES

Contract # 391-0494-C-00-0543-00

June 15, 1994

	Project Budget	Period Disbursements	Cumulatives To Date	Remaining Balance
S&W	1,050,741.00	39,112.20	852,485.74	198,255.26
FRINGE	105,901.00	4,693.46	100,996.08	4,904.92
OVERHEAD	799,408.00	39,425.10	845,034.04	(45,626.04)
G&A	544,589.00	29,130.77	617,690.91	(73,101.91)
T&T *	573,581.00	64,435.46	509,598.81	63,982.19
ALLOWANCES	166,025.00	1,011.97	152,625.34	13,399.66
CONSULTANTS	114,321.00	0.00	38,626.68	75,694.32
O.D.C **	165,638.00	15,830.98	187,866.73	(22,228.73)
SUBCONTRACTS	1,915,918.00	48,667.15	1,990,368.11	(74,450.11)
SUBTOTAL	5,436,122.00	242,307.09	5,295,292.44	140,829.56
FIXED FEE	271,787.00	12,115.35	264,764.62	7,022.38
TOTAL	5,707,909.00	254,422.44	5,560,057.06	147,851.94

* Travel and Transportation

** Other Direct Costs