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**IMPLEMENTATION PLAN FOR THE  
PRIVATIZATION OF THE  
FAISALABAD AREA ELECTRICITY BOARD  
(FAEB)**

**FINAL REPORT**

**October 5, 1992**

*Price Waterhouse*



October 5, 1992

Mr. Mian Shahid Ahmad  
Program Officer, O/PEN  
USAID/Pakistan  
Islamabad, Pakistan

Re: Implementation Plan for the Privatization of the  
Faisalabad Area Electricity Board

Dear Mr. Ahmad:

Enclosed please find our final report relative to the privatization of the Faisalabad Area Electricity Board (FAEB). Our report is organized into four sections. Section I contains an Executive Summary which highlights the major findings and recommendations of the study. Section II provides background information on the power sector in Pakistan and the FAEB. Section III contains the findings and issues identified by the PW team in the course of the engagement. This discussion forms the basis for the tasks outlined in the Implementation Plan contained in Section IV. Findings and issues in Section III are grouped under three phases: corporatization, commercialization and privatization, reflecting the major phases in the privatization process. This structure is also utilized in Section IV.

The tasks we have proposed as part of the implementation plan are those we believe to be necessary to ensure the viability of the privatized FAEB. These include the restructure of existing functions to increase efficiency and the introduction of new functions which will support commercial operations. We believe that these are the minimum required to successfully privatize the FAEB. However, if the Government of Pakistan wishes to privatize the FAEB as soon as possible, we recommend that consideration be given to only undertaking this transaction after a substantial portion of the commercialization process has been achieved.

Our team did make attempts while in Lahore to contact PTAT/EBASCO, only to discover that some of the project staff were away. Attempts to meet with other project staff were unsuccessful given the limited amount of time spent in Lahore and the scheduling of other meetings including visits to Faisalabad.

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Mian Shahid Ahmad  
October 5, 1992  
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We appreciate this opportunity to be of service to you on this important assignment. Please feel free to contact me at (202) 296-0800 if you should have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "James Waddell".

James Waddell

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**IMPLEMENTATION PLAN FOR THE PRIVATIZATION OF THE  
FAISALABAD AREA ELECTRICITY BOARD**

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## I. EXECUTIVE SUMMARY

### A. Introduction

In keeping with its overall strategy to privatize its power sector and achieve increased competition, the Government of Pakistan (GOP) is considering a Strategic Plan prepared in April 1992 for the privatization of the Water and Power Development Authority (WAPDA) that supplies electricity throughout Pakistan with the exception of the City of Karachi and its environs. The key elements of the Plan are as follows:

- Competitive power generation supplied by private generators;
- A single transmission entity owned initially by the GOP and by private investors later on; and
- A number of privately owned, regulated distributors which are prohibited from generating electricity.

The Plan also proposes the establishment of the National Electric Power Regulatory Authority (NEPRA) which will be responsible for regulating all the subsectors.

The Plan calls for a phased approach to the achievement of privatization. The first phase addresses the **corporatization** of the company which focuses on changing its legal status to enable the company to assume the rights and obligations of a private company. The second phase, **commercialization**, focuses on preparing the company to function as a commercial entity in order to achieve economic efficiency and financial viability. This phase can begin during the previous phase. However, unlike corporatization, commercialization does not have a "logical" stopping point and can last for a long or short period of time, depending on investor interest and GOP objectives. The final phase is **privatization** which addresses the actual transfer of ownership and could be implemented right after the corporatization phase, if appropriate. We estimate that these phases can be implemented over a 2-year period.

### B. Objective

As part of its program of technical assistance to the GOP, USAID/Pakistan contracted Price Waterhouse to provide a team of specialists to develop an "action plan" for the privatization of the Faisalabad Area Electricity Board (FAEB), one of the eight AEBs in Pakistan that are responsible for the distribution of electricity throughout the country. Since USAID/Pakistan will discontinue its technical assistance to the sector in 1993, it has required that the plan define the tasks that can be funded within a year.

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## C. Issues and Findings

In order to develop our "action plan," we conducted a review and analysis of the management and operations of the FAEB and other key issues that affect the privatization of that entity. This analysis allowed us to identify the necessary "steps" that should be taken within each phase.

### 1. Corporatization

The corporatization of the FAEB will last approximately ten months. We estimate that this period of time is appropriate in view of what must be accomplished during this phase. Goals include establishing a ratemaking process and initial rates, designing a mechanism for subsidizing certain consumers, and defining a tax policy. These are key to the process if corporatization is to produce meaningful changes in the *status quo* and attract high-caliber individuals to serve as directors who will be free to make decision on a commercial basis within defined rate parameters.

Other corporatization steps that should be part of this phase include:

- Designing and initiating a public relations program; ✓
- Obtaining legal authority to corporatize the FAEB; ✓
- Defining electric system and geographic boundaries; → existing or optimum?
- Valuing assets;
- Defining a subsidy system; ✓
- Determining a procedure for appointing Directors; ✓
- Performing a cost of service study and establishing initial rates; ✓
- Drafting power purchase and other agreements; ✓ Tax Policy
- Defining a ratemaking process; and
- Establishing procedures for addressing labor displacement and related issues. ✓

While it would be desirable for the NEPRA to be established during the corporatization phase, it is not essential. However, the NEPRA must be established prior to

privatization. This process involves the enactment of legislation which could extend the process beyond the estimated nine months and beyond the estimated ten months for the corporatization phase. We recommend that the required regulatory powers and responsibilities be given to the Ministry of Water and Power until the NEPRA is established.

## 2. Commercialization

The full commercialization phase is estimated to last a minimum of seven up to a possible 24 months. This phase can be shortened depending on investor interest and the objectives of the GOP. However, the immediate need to improve the efficiency of the FAEB's operations and to add new functions which are critical to the company's financial viability (i.e., load forecasting, tariff setting and marketing) supports the recommendation that this phase be implemented as fully as possible. Another advantage to implementing this phase as completely as possible is the possibility of utilizing the FAEB experience as a model for the other AEBs. This would allow the other AEB privatizations to be achieved within a shorter period of time and to benefit from "lessons learned" in the FAEB process. The commercialization phase can begin while the corporatization phase is still in process.

Our principal findings focused on the need to rationalize the current organizational structure and to increase the efficiency of existing operating and administrative systems to more fully prepare the FAEB to function as a commercial entity. In addition, there are several critical new functions that must be added to existing functions. These include:

- Load forecasting and tariff setting capabilities;
- Marketing; and
- Budgeting and business planning.

## 3. Privatization

Depending on the length of the commercialization phase, the privatization phase could last another ten months. This phase could begin as soon as the corporatization phase is completed. However, we recommend that a minimum amount of commercialization occur before privatization is implemented.

Privatization objectives as identified in the Strategic Plan include:

- Enhancement of private capital formations for investment in the power sector
- Improvements in the efficiency of the sector;
- A reduction in price distortions while maintaining socially desirable programs.

Privatization by management contract or leasing would not meet the objective of providing private development capital to replace GOP contributions. A sale of shares in a new company containing assets transferred from the FAEB to new owners could be a possible means of meeting the objectives outlined previously. Several options are available to accomplish a sale transaction and the selection of the most appropriate one will be based on the state of the local capital markets, investor interest and political considerations at that time.

We recommend that a detailed privatization plan be developed after the corporatization process is underway. However, in considering and implementing legal objectives and actions, careful attention should be paid to maintaining flexibility in this process so that as many options as possible would be available for structuring the privatization transaction when the time arrives.

#### **D. Implementation Plan**

Our Implementation Plan is summarized in Exhibit I on the following page. The table shows the tasks and related levels of effort that we have identified in response to the "steps" discussed in the initial section.

## Exhibit I - Implementation Plan

Phase	Steps	Implementation Plan (Task)
Corporatization	Conduct Asset Valuation	Conduct Review and Valuation of Assets (Task 2)
	Obtain Legal Authorizations	Identify Legislative Changes/Draft Documents (Task 1)
	Develop Cost of Service Model	Conduct Cost of Service Study (Task 3)
	Draft Agreements	Draft and Negotiate Agreements (Task 1)
	Establish Regulatory System	In Progress
	Formulate Subsidy System	Obtain GOP Agreement on Subsidies (Task 1)
	Establish Initial Rates	Determine initial rates (Task 3)
	Issue License	Draft and Issue License (Task 1)
	Prepare Memorandum and Articles of Association	Draft Memorandum and Articles of Association (Task 1)
	Transfer Assets	Transfer Assets (Task 1)
	Appoint Directors	Identify Policy for appointment of Directors and Appoint Directors (Task 1)
Commercialization	Redefine Organizational Structure	Conduct Organizational Study (Task 4)
	Upgrade Systems	Conduct Efficiency Review/Develop System Plan (Tasks 5-10)
	Develop Forecasting/Tariff Setting Capabilities	Develop Models/Establish Departments/Training (Task 11)
	Develop Staffing Plan	Prepare Staffing Plan (Task 12)
	Develop Procedures/Standards	Define Procedures/Standards (Task 13-14)
	Design System Coordination Procedures	Upgrade/Design/Install necessary metering and protection facilities (Task 15)
	Develop Training Plan	Develop Comprehensive Training Plan for the new company (Task 16)

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<b>Privatization</b>	<b>Identify Strategy</b>	<b>Conduct Strategy Study (Task 17)</b>
	<b>Prepare Implementation Plan</b>	<b>Develop Plan based on Strategy (Task 18)</b>
	<b>Implement Transaction</b>	<b>Conduct Transaction (Task 19)</b>

## **II. INTRODUCTION**

### **A. Background**

#### **1. Power Sector Policy and Privatization in Pakistan**

Far reaching changes have been proposed for Pakistan's power sector through the Government of Pakistan's (GOP) privatization program. As is the case with many developing countries, efforts to increase private sector participation in infrastructure development have resulted from the need to expand infrastructure systems and improve the quality of public services while reducing claims on scarce Treasury resources.

The GOP has embarked on a program to encourage the construction and operation of private power projects to meet the country's increasing energy requirements. Through WAPDA's Power Privatization Organization (WPPO), the GOP is encouraging the privatization of selected existing WAPDA plants and facilities and the establishment of private power projects in an attempt to:

- enhance capital formation for the power sector outside the GOP's budget and without sovereign guarantees, thus freeing up revenue for other pressing national social priorities;
- improve the efficiency of the power sector through competition, accountability, managerial autonomy, and profit incentives; and
- rationalize prices and, where necessary, social subsidies while maintaining socially desirable programs, including rural electrification and low-income "lifeline" rates.

A Strategic Plan for the privatization of the sector was completed in April 1992 and is currently under consideration by the GOP. The Strategic Plan calls for separating the generation, transmission and distribution functions currently contained within the WAPDA structure. It envisages a sector in which privately owned distribution companies will purchase power from private generators at competitive prices. The transmission and dispatch functions will similarly be assumed by a private transmission company which initially will be WAPDA but which eventually will be privatized. Distribution companies would not engage in generation. In addition, a National Electric Power Regulatory Authority (NEPRA) would be established to manage the orderly development of the sector and protect the general public. The plan also contains a timetable for the implementation of this strategy and identifies a generation station (Jamshoro) and a

distribution entity (the Faisalabad Area Electricity Board) to serve as models for the privatization of WAPDA's assets.

## 2. The Pakistan Water and Power Development Authority (WAPDA)

Pakistan's power sector falls within the jurisdiction of the Ministry of Water and Power. In 1958, the Government of Pakistan enacted the Pakistan Water and Power Development Authority Act<sup>1</sup>, creating the corporate entity known as WAPDA for the purpose of overseeing the unified and coordinated development of the country's water and power sources. In 1959, the Electricity Department was incorporated into WAPDA and since then WAPDA has been responsible for the generation, transmission and distribution of power, as well as the development of power and water resources, in all areas of the country with the exception of the District of Karachi<sup>2</sup>.

As enumerated in the Water and Power Development Act, WAPDA is responsible for planning and implementing a wide range of schemes involving Pakistan's water and power resources, including:

- irrigation, water supply and drainage; and the recreational use of water resources;
- generation, transmission and distribution of power; and the construction, maintenance and operation of power houses and grids; || Done d
- flood control;
- land reclamation;
- inland navigation; and
- prevention of any ill-effects on public health resulting from the operations of the Authority.

As WAPDA's legislative mandate indicates, the generation and provision of power is but one of the Authority's many responsibilities. Concomitant and sometimes competing responsibility for managing the country's water resources often conflicts with WAPDA's

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<sup>1</sup>"Pakistan Water and Power Development Act," Act. No. XXXI of 1958, As Amended. Previously cited as the "West Pakistan Water and Power Development Act."

<sup>2</sup>The Karachi Electric Supply Corporation (KESC) has analogous responsibilities with respect to the District of Karachi.

role as an electrical utility, as when it is required to divert water from its hydroelectric dams to irrigate farms, thereby rendering it impossible to generate sufficient power to meet the needs of its customers. Conflicting priorities of this nature are axiomatic of WAPDA's current operations and structure and are a key factor in the drive to separate and privatize its various functions.

### **3. The Area Electricity Boards (AEBs)**

Pakistan's Area Electricity Boards (AEBs) were created in 1981 for the purpose of administering the supply and distribution of power throughout the country<sup>3</sup>. The AEBs are responsible for the construction, expansion, maintenance and management of Pakistan's power distribution system, encompassing the provinces of Sindh, Punjab, Baluchistan, and the Northwest Frontier. Currently there are eight AEBs, five of which are located in the Punjab. For all intents and purposes, the AEBs are subdivisions of WAPDA and accountable to WAPDA House. AEB employees are WAPDA employees, and the officers of the AEBs are selected from WAPDA's senior ranks.

### **4. The Faisalabad Area Electricity Board (FAEB)**

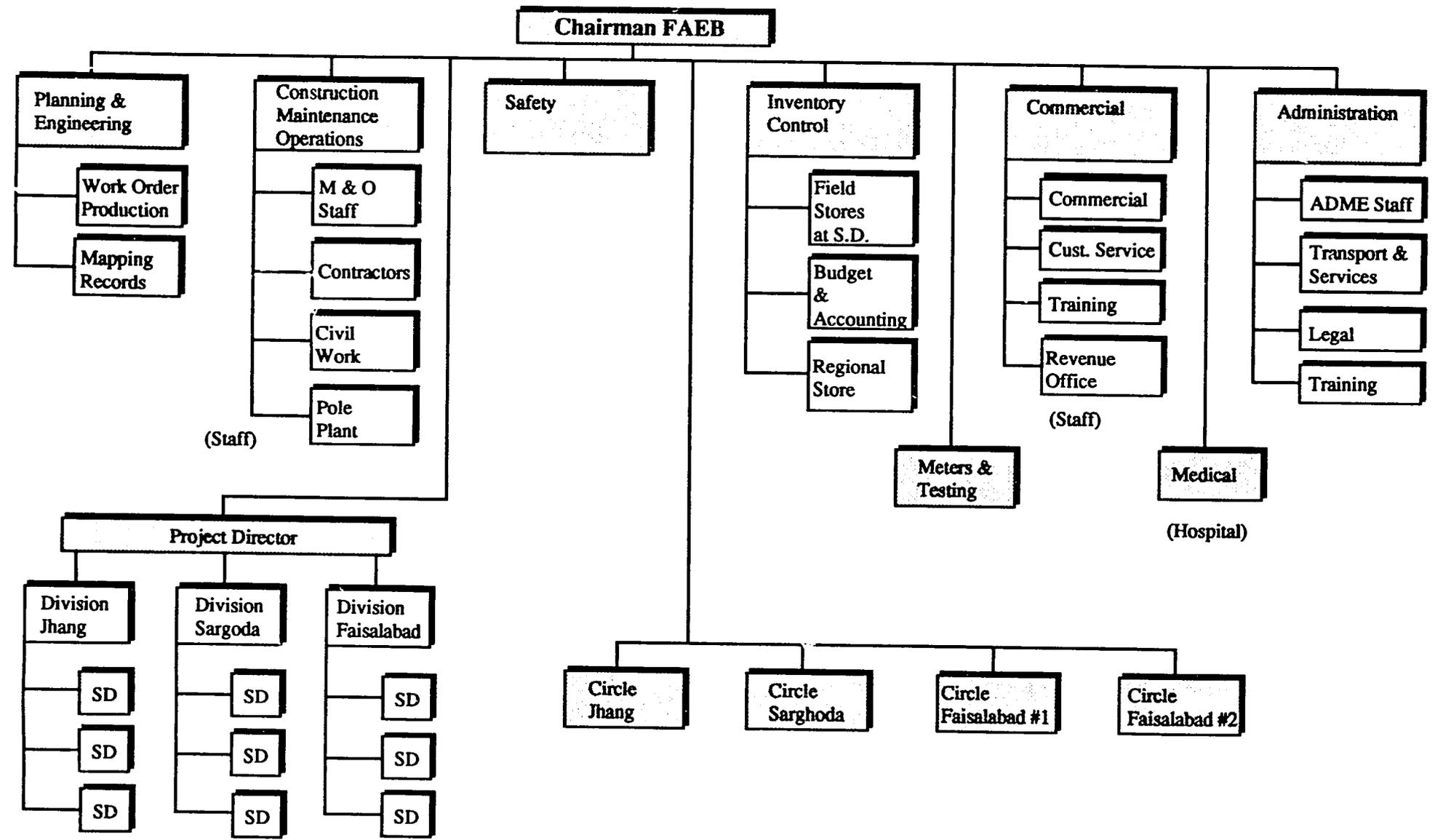
#### *a. Management and Organization*

The FAEB is managed by a Chairman who reports to the General Manager of Operations (Distribution) in WAPDA. The Chairman is assisted by six directors with responsibility for planning and engineering; construction; maintenance and operations; safety; inventory control; and sales and administration (See Exhibit II on the following page). Administratively, the FAEB is divided into four circles in the Faisalabad service area. Two of the circles (Circles 1 and 2) are located in Faisalabad and others (Circles 3 and 4) are located at Jhang and Sargodha. The Faisalabad circles have four divisions each as does the Jhang circle (See Exhibit III on page 11). Sargodha currently has six divisions which will warrant the creation of a circle. In addition, WAPDA provides computer processing services at three centers in the FAEB service area and an internal audit office located in Faisalabad.

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<sup>3</sup>Statutory Authority for the creation of Area Electricity Boards is contained in Chapter III, Section 8(2) of the WAPDA Act of 1958. This discussion applies only to those AEBs under WAPDA's jurisdiction, and not to the operations of KESC or its subdivisions.

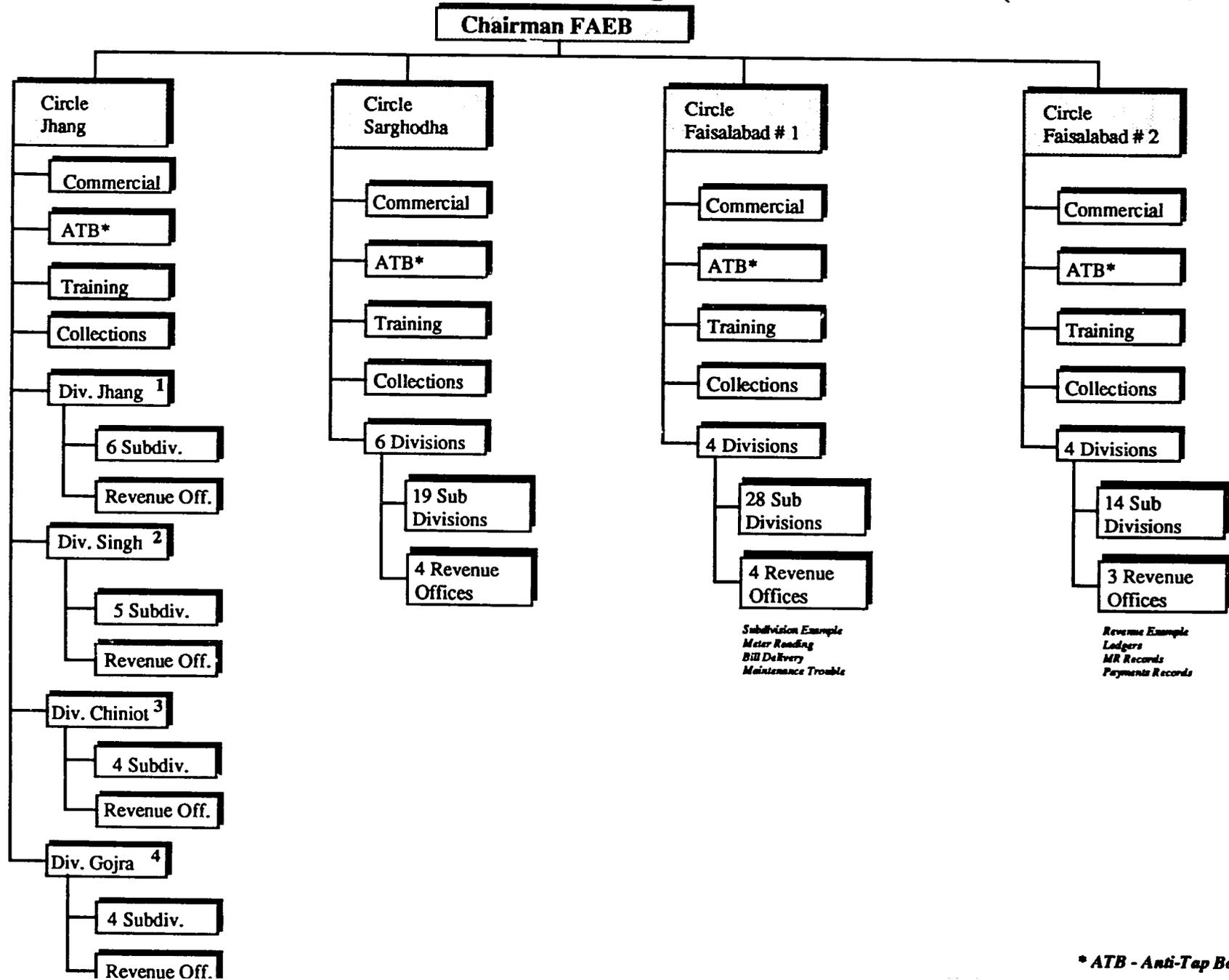
# Faisalabad Area Electricity Board - Current Organizational Structure (By Function)



Village Electrification  
Deposit Works  
Government Work  
Main Extensions

10

# Faisalabad Area Electricity Board - Current Organizational Structure (Administrative)



The organization of the FAEB may be summarized as follows:

- **Circle.** The first level of field office in the service area, circles are headed by Directors who report to the Chairman of the FAEB. Circle employees review the application of commercial procedures in the divisions, install devices at customer sites that prevent the diversion of current before it is metered, review engineering standards and mapping and work with civil authorities to collect delinquent accounts.
- **Division.** Each Circle contains a number of Divisions, each of which is managed by a Divisional Manager (Executive Engineer). Divisions are responsible for load shedding, payroll preparation, processing of applications for new connections, and revenue management. The latter is the responsibility of a revenue officer who reports to the Division Manager. The Revenue Office is divided into (a) an account section which maintains records for all of the subdivisions, (b) a general section which maintains customer records and handles customer enquiries, and (c) a debtor control section which handles collections. The Revenue Office is also responsible for checking meter reading documents before they are sent to the computer center and for delivering the bill to the customer.
- **Subdivision.** Most of the FAEB line functions are performed in the subdivisions which report to the Divisional Managers. The subdivisions handle maintenance and installation, as well as meter-reading and the preparation of customer bills. Within each subdivision is an office responsible for customer enquiries, and all complaints are handled at this level.

Circles, Divisions and Subdivisions are based on demographic considerations. In general, a division consists of 40,000 customers and a subdivision of 10,000.

The FAEB currently employs over 14,000 staff, including approximately 235 officers. Of these 14,000 employees, over 99% are unionized, being of Grade 16 or below<sup>4</sup>.

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<sup>4</sup>Only employees below Grade 17 (officers) may belong to unions. Officers of WAPDA and the AEBs, as well as security personnel, may not belong to a union. (Cf. WAPDA Act, Chapter IV, Section (1D)).

b. *Customer Base*

The FAEB serves some 1,103,359 customers distributed as follows:

Residential	Commercial	Industrial	Agricultural	Total
89,5550	157,485	30,232	20,092	1,103,359

Source: FAEB as of 3/31/92.

Forty-four percent of FAEB's customers are located in urban areas. Industrial users, including many of the textile factories located in the Faisalabad area, account for 44% of total sales between 1991 and 1992. The majority of the customers located in the Jhang and Sargodha circles are engaged in agricultural related activities, and these circles presently account for the largest amount of arrears.<sup>5</sup>

c. *Technical*

The FAEB is currently served from WAPDA via 220 Kv, 132 Kv and 66 Kv transmission lines. The length of these lines as of March 31, 1992 was 20,011 km, a 1.03% increase over the previous year's total of 19,369 km. There is a total of 65 delivery points distributed as follows: 35 (66 Kv), 28 (132 Kv) and 2 (220 Kv). Trippings below 20 minutes were estimated at 49.64, below the previous year of 57.33 and 5.43 down from 6.39 for those above 20 minutes.<sup>6</sup> Transmission and dispatch functions are handled by WAPDA's automated center in Islamabad.

<sup>5</sup>As of March 31, 1992.

<sup>6</sup>Trippings per 100 km for the period from June 1990 through March 1992.

What voltage?  
WAPDA circles?

## d. Financial

Based on the most recent information available, the total net historical cost of the assets used by the FAEB is Rs 3,075.7 million distributed as follows:

Item	Historical Cost (Rs million)	Replacement Cost (Rs million)
Fixed Assets (June 1991) <sup>7</sup>	3,344.9	6,025.1
Less Accumulated Depreciation	(867.3)	(1,879.3)
Accounts Receivable (March 1992)	433.1	433.1
Stores (May 1992)	165.0	165.0
<b>Total</b>	<b>3,075.7</b>	<b>4,743.9</b>

Sales of electricity by the FAEB totalled Rs 2,931,950,330 for the nine months from July 1991 to March 1992. This total was distributed by customer group as follows:

Customer	Sales (Rs)	%
Residential	806,548,622	28
Commercial	106,136,453	4
Industrial	1,301,184,810	44
Agricultural	718,080,445	24
<b>Total</b>	<b>2,931,950,330</b>	<b>100</b>

Source: FAEB

Total billings for this period were Rs 4,013.9 million, of which Rs 3,723.38 million had been collected by March 31, 1992. Endemic to these billings is the problem of

<sup>7</sup>See fixed asset analysis in Exhibit IV on page 21.

undercharging. Between 1989 and 1990, WAPDA internal audits revealed undercharges in excess of Rs 23,926,117. Of this total, the largest amount of undercharges related to services provided to the industrial and irrigation segments of the customer base. Accounts receivable for nine months ending March 1992 totalled Rs. 433.07 million, representing a 300% increase over the previous year's receivables of Rs 142.55 million. The Government of the Punjab continues to account for the majority of outstanding receivables.

Line losses reported by the FAEB have generally been within established target ranges. An exception to this occurred in March 1992, when losses were estimated at 19.61%, up from 3.71% of the previous month.<sup>8</sup> Average line loss for this period was reported at 8% which is low compared with the other AEBs. However, WAPDA has detected the manipulation of data at all the AEBs and estimates true line losses for Faisalabad to be in the order of 14.9%.<sup>9</sup>

The operating results, as reported, were as follows for 1990/1991:

<i>Revenue</i>		<i>Rs million</i>
Power sales		3,055.2
Other revenues (mainly fuel adjustment)		<u>1,360.8</u>
		4,416.0
 <i>Expenses Allocated</i>		
Generation	1,952.7	
Transmission	<u>423.6</u>	<u>2,376.3</u>
Contribution Margin		2,039.7
Operating	482.6	
Depreciation	101.6	
Interest	127.9	
Other	<u>29.5</u>	<u>741.6</u>
 <i>Historical cost profit</i>		 1,298.1

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<sup>8</sup>Line losses are calculated as the difference between units received and units sold.

<sup>9</sup>In its performance analysis of the AEBs for 1990-1991, WAPDA noted that the AEBs were reporting agriculture sales well in excess of what was possible on the basis of the flat rate charged to this category of customers. This is apparently an attempt to disguise line losses experienced by the divisions. The current average distribution load factor is estimated to be 76% which means that usage is averaging 18 hours a day throughout the year as opposed to 11 hours based on a 45% load factor. In other AEBs, load factors can be as high as 100% which means that demand is at peak 24 hours a day which is not feasible.

<i>Imputed tax at 45%</i> <sup>10</sup>	584.1
<i>Historical cost profit after imputed tax</i>	<u>714.0</u>
<i>Adjustment of depreciation from historical cost to replacement cost basis</i>	<u>89.5</u>
<i>Net profit in commercialized environment</i>	624.5
<i>Assets employed</i>	4,743.9
<i>Rate of return</i>	13.16%

Operation	U/R	Revenue 000	Expenses 000	Net Profit (Loss) 000
1st Circle	U	1,419,461	761,067	658,394
	R	183,595	200,541	(16,946)
2nd Circle	U	702,998	390,031	312,967
	R	186,501	211,399	(24,898)
3rd Circle	U	631,284	378,673	252,611
	R	489,032	448,235	40,797
4th Circle	U	408,870	251,807	157,063
	R	394,307	476,159	(81,852)
Total	U	3,162,613	1,781,578	1,381,035
	R	1,253,435	1,336,336	(82,901)

U - Urban R - Rural

Source: WAPDA, AEB Performance Analysis, 6/30/91.

<sup>10</sup>The tax rate on profits for companies listed on a stock exchange is 45% and for unlisted companies it is 55%. Over the next 5 years these rates are expected to be reduced to 30% and 35% respectively. (Source: A.F. Ferguson)

## **B. Objectives**

To support WAPDA's privatization program, Price Waterhouse was retained by USAID/Pakistan to develop an implementation plan for the privatization of the FAEB. As this would be the first AEB to be privatized, it is intended that this privatization serve as a model for other AEBs.

The Price Waterhouse plan will:

- Determine necessary actions and technical assistance required to implement the FAEB privatization;
- Identify the required expertise, level of effort and responsibility for the performance of the tasks identified above; and
- Define the schedule and sequencing of these tasks.

A distinction between the actions and tasks that can take place (a) before December 31, 1993 and (b) after that date will be made in keeping with the Scope of Work.

## **C. Methodology**

In order to achieve the objectives outlined above, the Price Waterhouse team, assisted by a representative from the International Resources Group (IRG), undertook the following activities:

- Conducted interviews with the Power Privatization Commission;
- Reviewed documents pertaining to the establishment of WAPDA and the AEBs. Documents examined included the Electricity Act, the WAPDA Act of 1958 and the Notification establishing the AEBs;
- Reviewed the WAPDA Strategic Plan (April 1992), documents related to the Jamshoro privatization activities and other relevant documents;
- Analyzed the operations, organizational structure and financial performance of the FAEB;
- Conducted interviews with key staff at WAPDA, WPPO and the FAEB; and

- Conducted site visits to circle, division and subdivision offices and interviewed staff.

A list of interviews conducted by the PW/IRG team is contained in Appendix III of this report.

### III. ISSUES AND FINDINGS

#### A. Introduction

Under our terms of reference, Price Waterhouse was directed to develop its recommendations within the framework of the WAPDA Strategic Plan, adopted in April 1992. This Plan states:

"Before WAPDA can privatize its assets...its activities must be separated into discrete profit centers, which should be established as distinct corporate entities. Only when these entities have operated as distinct businesses long enough to have a commercial track record and have taken steps to enhance their attractiveness to private investors will WAPDA maximize the value of selling these state-owned assets."

We have therefore adopted the WAPDA Strategic Plan as our starting point, and have only diverged from it when we felt this was essential to the privatization process. Any such modifications are clearly indicated in the following Implementation Plan, and are accompanied by a thorough justification.

We have chosen to organize this section within the three principal phases of the divestiture process which are corporatization (which addresses the legal status of the FAEB), commercialization (which enables it to function as a commercial entity) and privatization (which addresses the actual transfer of the company to the private sector).

#### B. Corporatization

Corporatization is a stage in the privatization process during which an entity's operations are restructured along commercial lines. As such, it is a *phase* as opposed to a discrete event, and corporatization is not a substitute for privatization. In the case of the FAEB, corporatization will involve both legal and operational changes. From a legal standpoint, changes to various statutes will be necessary to create a corporate entity empowered to acquire real estate and other assets, borrow, be taxed, enter into contracts and sue and be sued.

An important consideration that must be addressed in this process is the impact of the process on the officials and workers of the FAEB and WAPDA in general. A number of such fears were expressed to us, including concerns about the removal of profitable operations, such as those of the FAEB, from WAPDA; the unwillingness of privatized entities to invest in uneconomic service extensions; the possibility that private owners will underinvest and undermaintain assets and leave the GOP with a weak entity; and the

possibility that large labor displacement resulting from privatization will lead to social problems, militant action and disruptions of service. These are all concerns that are sincerely held and should be treated as such through the design and execution of a public relations program that is implemented during the corporatization and continues through the privatization phases.

Corporatization involves the following principal steps:

**1. Conduct Asset Valuation**

WAPDA's accounting system produces income statements for individual AEBs and segments of AEBs partly from inputs provided by them and partly from accounting allocations made in Lahore. Unless it is determined that the information is unreliable, further verification of this information does not appear to be necessary since investors will be interested in the future prospects and not past performance, as the entity will be operating under significantly different conditions than previously. However, there is a need for an accurate valuation of assets for a number of purposes, including the transfer of these from WAPDA to the new company and setting tariffs. These assets are fixed assets, receivables and stores.

One of the key considerations in this exercise is the basis of the valuation. WAPDA records fixed assets at their historical cost. However, this approach is inappropriate for utilities in developing countries since the inflation rates and exchange rates (which are often closely related) are such that depreciation and consumption figures are insufficient to provide for the replacement of these items. Therefore, this basis should not be used in tariff studies to determine initial rates to be permitted by the regulators. WAPDA also uses a composite depreciation rate which is applied to all assets. This should be refined to clarify that the mix of assets at a distribution entity is different from the mix applicable to the whole WAPDA power system.

Replacement costs can be arrived at by using published indices and applying them to the historical cost, adjusting for exchange rates if the indices are developed in a foreign supplier country. Accumulated depreciation could be calculated using the estimated economic life for each broad category of asset. This is an accounting exercise that does not require a physical inventory of the assets provided that historical cost data (by depreciation class) can be accurately obtained for the FAEB. Even in the United Kingdom, the regional Electric Companies (the distribution companies) are required to submit financial information on the current cost (inflation-adjusted) basis to the regulators. Exhibit IV on the following page analyses FAEB's fixed assets replacement cost.

## Exhibit IV

## FAEB Analysis of Fixed Assets Replacement Cost

YEAR	HISTORICAL ADDITIONS RS MILLION	COST BALANCE	GDP DEFLATOR CHANGE FOR YEAR	GDP DEFLATOR "INDEX" (1984=100)	1991 RS MILLION BALANCE
PRE 1984	1,131.4	1,131.4		100.0	2,789.9
1985	171.0	1,302.4	17.9%	117.9	3,177.0
1986	223.1	1,525.6	18.8%	140.1	3,603.6
1987	450.0	1,975.6	17.5%	164.6	4,332.1
1988	474.5	2,450.1	13.1%	186.1	4,999.4
1989	340.7	2,790.8	10.9%	206.4	5,427.4
1990	221.7	3,012.5	10.2%	227.5	5,679.4
1991	332.4	3,344.9	8.4%	246.6	6,025.1

Yet another approach could be to identify the physical assets individually, estimate their remaining useful lives, obtain supplier quotations as to replacement cost (new) and mathematically determine depreciated replacement cost. This "engineering" approach tends to be a more lengthy and costly exercise than the accounting approach, and may be duplicative since a physical review would in any case be part of the later due diligence process.

The initial depreciated replacement cost study would be conducted to give the GOP a preliminary idea of initial rates so that work can begin on tariff setting. However, these would not be finally set until the due diligence exercise was completed.

## 2. Obtain Legal Authorizations

For corporatization to proceed, WAPDA must be legally empowered to create and invest in subsidiaries and to sell the physical assets of the FAEB. In addition, powers and authorities allowed WAPDA under various provisions of Pakistan's federal and provincial law must be extended to the newly corporatized entities. These include the provisions of the Land Acquisition Act, Essential Services (Maintenance) Act, Electricity Act and WAPDA Act. Appendix I contains a more detailed analysis of some of the legal issues affecting the corporatization of the FAEB.

WAPDA's Power Privatization Organization (WPPO) and USAID/Pakistan have retained specialized legal counsel for the purpose of examining and proposing amendments to the WAPDA statute to enable the Authority to proceed with the corporatization and privatization of its functions. These amendments are discussed separately in the reports of WPPO's legal counsel. However, from the viewpoint of achieving the *aims* of privatization, care must also be taken to ensure that WAPDA's powers and prerogatives in the areas of land acquisition, egress, eminent domain, etc., are devolved to the FAEB. Our implementation strategy and program incorporates a thorough examination of all these issues to ensure the smooth transition and continuation of services following divestiture. The legality of any powers and obligations that are to be given to the entity must also be established in the context where it is probable that the GOP, through WAPDA, will be the sole owner for some period of its operations.

### 3. Develop Cost of Service Model

A prerequisite to the setting of rates in a commercialized or privatized environment is determining the price level at which profits would be generated. Here, either an accounting approach or an economic approach could be used. The accounting cost of outages, for example, is lost revenues and repairs while the economic cost would include the disruption caused to consumers. Whether the NEPRA chooses to use rate of return or price cap mechanisms for ratemaking, it is necessary to determine the cost of service to each category of consumer, whether or not the rate schedule will have the same degree of differentiation. This study is also needed to determine the level of subsidies that may be required. The assets devoted to each service and their replacement cost is part of the information needed to conduct such a study. A model which permits variables to be altered would be developed and used by the company and the regulators to negotiate rates and subsidies on an ongoing basis.

### 4. Draft Agreements

The WAPDA Strategic Plan states that:

"...before even limited corporatization..of distribution can be implemented,..some form of wholesale market must be established, if only in the form of a bulk supply tariff (BST) specifying the transfer prices at which a distribution company can buy power...; and methods must be developed to regulate retail prices...taking into account any...mandated subsidized services."<sup>11</sup>

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<sup>11</sup>IRG, WAPDA Strategic Plan, pp. 3-4.

Unlike the case of a generation entity, where a power purchase agreement can provide the directors of a corporatized entity or the shareholders of a privatized entity with the required assurances concerning selling prices, price-regulated distribution companies can only derive a reasonable degree of certainty from the existence of a predefined ratemaking process administered by a regulator.

## **5. Establish Regulatory System**

The Strategic Plan calls for the establishment of the National Regulatory Authority NEPRA, and funding for the technical services required to establish the NEPRA is being arranged. The regulatory framework would provide the GOP with powers through the NEPRA in three identified areas: i) setting bulk tariffs, ii) retail rates, and iii) subsidy mechanisms. These matters should be clarified through statute before corporatization; otherwise it will be impossible for directors to effectively discharge their duties and assume full authority for the prudent management of FAEB operations.

Creating the NEPRA and training the necessary staff will be a prolonged process, requiring enactment of a number of pieces of legislation and creation of a new entity. The legislative process alone is estimated to take nine months, followed by the recruitment of staff and promulgation of internal regulations and operating procedures.<sup>12</sup> The NEPRA will also need time to establish a fair and equitable, as well as transparent, ratemaking system to be applied to distribution companies.

To ensure that the corporatization and commercialization phases proceed as quickly as possible, we recommend creation of an interim regulatory function to be established within the Ministry of Water and Power. This interim function will promulgate ratemaking regulations until the creation of the NEPRA and will enable corporatization to proceed without undue delay. The NEPRA should be fully operational by the time the FAEB is ready for privatization.

## **6. Formulate Subsidy System**

The WAPDA Strategic Plan proposes that cross-subsidies be eliminated and direct subsidies be introduced instead to provide "lifeline" and related services.<sup>13</sup> The two basic ways for indirect subsidies to be applied are: 1) by regular payments to the utility which represent the full cost of electricity supplied to certain consumers minus the amounts billed; or 2) by contributions-in-aid which represent the difference between the actual capital cost of connecting the consumer and the value to the utility of that

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<sup>12</sup>According to IRG's draft Control Work Plan (No. CWP-1.23.2).

<sup>13</sup>The GOP may wish to consider the gradual elimination of subsidies over time.

connection taking into account the expected consumption and the rate it is permitted to charge, and discounting at the investor's target rate of return. The second approach would be more easily administered and would assure that the differential is recovered as the capital work is completed. If capital project revenues exceed expectations, then the FAEB should refund part of the capital contribution to the GOP. The rate study should address the subsidy issue and develop both mechanisms simultaneously.

In the context of privatization, investors will be less likely to accept the continuance of the cross-subsidy system because of potential competition. The transmission company could supply industrial consumers and under the Electricity Act a license does not confer an exclusive right to a licensee to operate in any geographic service area. If the distribution company charged lucrative industrial customers to cross-subsidize small rural customers, the transmission company could offer a lower price to the distribution company's best customers. On the other hand, distribution companies should not engage in cross-subsidization as they may subsidize large customers in some circumstances, thereby reducing competition.

If the legal regulatory framework is not in place at the time agreement is reached on subsidies, an alternative mechanism must be established that will be binding on the GOP for as long as the corporatization phase lasts. If changes are made before privatization, the investor or financial advisor will be prepared for them and will take them into consideration in determining the price to be paid.

## **7. Establish Initial Rates**

Although the Strategic Plan does not explicitly state that rates must be initially set by the NEPRA, the only technical assistance being procured at present is with the legal establishment of the NEPRA. No related project has been identified to determine initial rates and the ratemaking process. If the tasks are conducted consecutively rather than simultaneously, the corporatization and privatization process will be delayed significantly.

The issue to be resolved is whether the NEPRA should be formed and then charged with the selection of the ratemaking method and setting initial rates or whether the method and initial rates should be in place before the NEPRA is established. If the GOP is amenable to authorizing the ratemaking method for distribution companies and the initial rates, at least for the FAEB, prior to the establishment of the NEPRA while having the Ministry of Water and Power be responsible for administering the process in the interim, then it will be possible to corporatize the FAEB prior to NEPRA's establishment. Technical assistance for the performance of a cost of service study and the setting of initial rates for the FAEB is required. The results of these efforts must be binding on the GOP for as long as the corporatization phase lasts. Proposed changes

before privatization will be disclosed by the investor or financial adviser and will be taken into consideration in determining the price to be paid.

As indicated in Section II.A.4, the FAEB could earn an estimated 13% return on the replacement cost of assets employed in its operation on base rate revenues of Rs 3,055.2 million. In order to earn a rate of return of 20% at existing rates, profits after tax would have to be Rs 948.8 million or Rs 324.3 million more than at present. To earn that additional after-tax profit, pre-tax profits would have to be higher by Rs 589.6 million, which is equivalent to 19.3% of power revenues excluding the fuel surcharge or 13.4% of total revenues. Based on preliminary calculations, this indicates that rates would have to be increased accordingly for the FAEB to earn a rate of return of 20% in a commercialized sector.<sup>14</sup>

## **8. Issue License**

The license can be issued under the Electricity Act or by WAPDA. In the context of ultimate privatization, the License should be issued directly by GOP to the corporatized FAEB as it would give rise to a conflict of interest if WAPDA, a potential competitor, had the ability to interpret clauses of the license to the detriment of the new company. In view of the changes that are being proposed for the legal framework governing the industry, it may be necessary to provide the company with adequate assurances that, if the law under which the license was issued is repealed or amended, any new license or equivalent would not impose any more onerous terms on the licensee than the license negotiated at the time of corporatization.

An important license issue is the definition of the service area. In defining service that relates to voltage level cut-off and geography, the following issues must be considered.

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<sup>14</sup>An alternative to rate increases might be the granting of special tax relief to the entity. However, donor agencies are generally not supportive of these types of incentives because of the distortions they produce in the economy. Sophisticated investors try not to rely on tax incentives for the success of an operation because of the tenuous nature of such incentives. Investors would seek to have the GOP make the unpopular decision to raise rates before their investment is made. If the incentives were to be removed at some future date, the investors would be in the ownership position when a sudden rate increase would be necessary.

**Potential Impacts of Selected Factors on Determination of Electrical System and Service Area Boundaries**

Factors	Voltage Cut-Off	Geographic
Transmission	Higher voltage cut-off might increase attractiveness to investors	Subdivision of existing area will increase number of entities for transmission company to deal with.
Capital Markets	Mobilizing investment funds for initial privatization will be more difficult as size of asset base increases.	Smaller units will be more attractive to investors. However, they will have less diversified customer bases and less chances for financial viability.
Competition	Competition for large customers will be limited if cut-off is at 132 Kv	Smaller units will not increase competition except through benchmark competition. <sup>15</sup>
Shared Facilities	Responsibility for shared facilities will create problems if WAPDA divests before the AEBs are privatized	Subdivision will create need to share 11 Kv. WAPDA agreement necessary since AEBs will not be privatized at the same time.
Technical Capabilities	Current FAEB maintenance expertise is limited to 11 Kv	Duplication of capabilities to maintain 11 Kv. Resources could be shared.

We believe that the voltage cut-off level for which FAEB should retain responsibility should initially be 11 Kv, with systems above that level remaining with WAPDA. The cut off level should be raised as soon as it may subsequently be feasible.

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The cut-off level can be increased when other AEBs are separated and able to develop commercial arrangements among themselves for the sharing of facilities and when they can accommodate the investment required through the internal generation of funds or fresh approaches to the capital market. Given time, the distribution companies can build up the technical expertise required to take responsibility for higher voltage systems. With the passage of time, as the load requirements of industry increase, competition can still be a reality even if distribution entities take over 132 Kv systems.

Furthermore, we recommend that the FAEB service area not be split into smaller geographic areas prior to corporatization or privatization. The disadvantages of a geographic split appear to outweigh the advantages. If at some stage following

where are they split?

<sup>15</sup>In the case of benchmark competition, performance standards for the units are "benchmarked" against the performance of similar units.

corporatization or privatization the entity wishes there to be a split, approval should first have to be obtained from the NEPRA. Depending upon the resolution of the "service boundaries" issue, there may or may not be a need for the preparation of commercial agreements with WAPDA for sharing physical and technical facilities. Such sharing should be kept to an absolute minimum.

Other typical license issues include performance standards and reporting requirements and customer related codes of practice. Since distribution companies will, under the strategy, be prohibited from providing their own generation facilities and must compete with the transmission entity, it was not considered appropriate in the U.K. to impose an obligation on distributors to provide service on demand since this could have placed them at a competitive disadvantage against second-tier suppliers. However, it is mandatory that some arrangement be made to ensure that a prescribed power purchase security standard is met.

## **9. Appoint Directors**

Company Directors are key to preparing the company to achieve better performance after corporatization, if government ownership has to continue for a period following corporatization. The freedom of the management to operate the company in a commercial manner without interference from the shareholder (WAPDA/GOP) should be assured as far as possible in structuring corporatization.

On occasion, corporatized state enterprises have been known to perform significantly better than state enterprises when the corporatized entity continues under government control and if its directors continue to be political appointees. Shareholders of large private sector companies are generally not involved in day-to-day management but, even in cases when this does occur, such involvement is founded on commercial grounds. In cases where governments are shareholders, political objectives usually take precedence in practice over commercial objectives. The challenge remains to identify a way to best insulate the enterprise from political interference even though it is owned by the government.<sup>16</sup>

Based on the assumption that the corporatization process is supposed to lead to privatization in Pakistan, autonomy could be achieved by allowing the appointment of directors by the Privatization Commission. This will permit the Commission to change the board if it does not positively promote privatization. This proposed solution should find favor with the authorities since privatization is a major policy initiative. The public interest would still be safeguarded through the terms of the license and the NEPRA (or

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<sup>16</sup>The GOP may consider the appointment of Directors by WAPDA itself. However, this strategy would call into question the independence of the Board and its ability to maintain its autonomy from political influences.

the Ministry until the establishment of the NEPRA) within the defined limits of its powers. This method was effectively used by the government of New Zealand in furthering its privatization program.

It would be unusual for the majority shareholders of a company to be disenfranchised as would be the case if WAPDA was the majority shareholder while the directors are appointed by the Privatization Commission. This situation could be avoided by enabling a nominee(s) of the Commission to hold a negligible number of shares. This would allow for a shareholders' agreement that would require WAPDA to vote with the Commission on all issues including the appointment of directors. The exception to this would relate to the appointment of auditors. In addition, the quorum for shareholders' meetings would have to be such that the Commission's nominee(s) alone could hold a properly constituted meeting except for that part of a meeting where the appointment of auditors is to take place. Upon privatization, the agreement would automatically expire.

Consideration should also be given as to whether a WAPDA representative should be entitled to be on the Board prior to private participation. In all likelihood the Privatization Commission would see advantages in this arrangement but conflicts of interest could arise if commercial or negotiating strategies of the distribution company could be reported to WAPDA which would be selling bulk power and perhaps other services to the company and its large customers. Technical coordination could be achieved through other mechanisms and through the regulatory framework.

The Board of Directors should be appointed after the various agreements have been signed so that delays do not occur as directors seek to negotiate better terms. It is usual for directors to be appointed to boards of companies that are already in operation, inheriting agreements by which the companies are bound. Therefore, if the agreements are overly onerous it will be harder to find the right caliber of directors.

## **10. Transfer Assets**

As discussed earlier, assets should be transferred into the new entity preferably on the basis of depreciated replacement cost in order to reflect more realistic costs of service and, therefore, rates and subsidies. However, there is a political danger in doing so if the GOP (through the NEPRA or an interim regulator) is not willing to set rates and subsidies at a sufficiently high level to justify the asset valuation on privatization. Investors will seek to pay a price no greater than an amount which will yield a sufficient return through after-tax cash flows. This applies whether the "investor" is an individual, sophisticated consortium, the general public or an employee group.

A payment to WAPDA would be required with the asset transfer. This payment would not be in cash as the corporatized entity would have no resources, only shares or a

combination of shares and debt. It is irrelevant that WAPDA may have little or no debt relating to the distribution assets being transferred and the mix of debt and equity can be at whatever level the parties wish with the debt terms being fully negotiable. However, the ultimate goal of privatization should be kept in mind when setting the mix as well as the ability of the enterprise to service debt. The implications for privatization include the capacity of the markets into which the shares may be sold (the lower the equity component the better from this point of view) and the risk that will be perceived by investors if there is too much debt and too little equity.

If the privatization transaction is to be accomplished through a share sale and the underlying replacement cost value is not justified by the rates, WAPDA will have to record a loss on the disposal as the initial value would have been too high. If privatization is accomplished through the sale of shares of a company containing the assets of the commercialized enterprise instead of the sale of shares by WAPDA, then the enterprise will record a loss on the disposal of the assets.

One solution could be the transfer of assets from WAPDA to the corporatized FAEB at a value below the expected economic value. This could give rise to artificially low rates which would cause distortions in the economy and provide the FAEB with an unfair competitive advantage. If the GOP is not prepared to establish sufficient rates to cover replacement costs, then it should be prepared to subsidize the required differential, if the alternative is a lower selling price for the enterprise. However, we do not recommend this approach.

## **11. Prepare Memorandum and Articles of Association**

The company should be incorporated under general legislation (the Companies Ordinance) and not by a special act since it is extremely difficult to accomplish changes in a law, as opposed to changes in the memorandum and articles when warranted. Investors feel uneasy since the company could be singled out for adverse treatment if not incorporated under general law. In addition, special provisions should be contained in the incorporating documents concerning the appointment of directors.

Many companies which are controlled by the GOP have, as is specifically allowed by the Companies Ordinance, appointed "Managing Agents" to provide top executives for a fee. One company in the industry that has this feature is the Karachi Electric Supply Corporation (KESC). Many problems have arisen because of the management agents arrangement at that company.

An issue that needs to be addressed which has policy implications for the sector nationally is whether cross-directorships should be permitted in the industry or segments of the industry. It would clearly be inconsistent given the competition objective for

"competing" generation enterprises to have owners and directors in common, but cross directorships in non-competing, price-regulated distribution companies may not be detrimental. In the United Kingdom the distribution companies own the transmission company, but use a holding company structure to separate ownership from day-to-day operation and control.

A policy decision also needs to be taken as to whether concentrations in ownership ought to be prohibited, if only for a limited period. This will have implications for the preparation of the memorandum and articles as provisions to entrench the prohibitions can be accomplished by use of the "golden share" technique which has been a feature of many privatizations, particularly in the UK.<sup>17</sup> In that country, concentration of ownership of most of the enterprises in the power sector was restricted to 15% for 5 years.

### **C. Commercialization**

Enabling the FAEB to function efficiently as a commercial operation and maintain its financial viability is critical to the success of its divestiture. This process, termed commercialization, focuses on the restructuring of the company's operations to support its new private sector status defined during the corporatization phase.

Commercialization can begin during the corporatization phase and can continue beyond the completion of this phase. The GOP will have to decide whether or not it wishes to hand over the corporatized entity to the new directors before the commercialization phase is completed. If it should choose to do so, the new directors will have to determine whether to continue or abort commercialization projects.

As opposed to corporatization which can properly be viewed as a change in the corporate and legal structure and status of the FAEB, commercialization involves changing the way the Area Board does business and instilling basic business acumen into the Board's day-to-day operations. Corporatization itself will not ensure that the FAEB operates efficiently. This can only be accomplished through effective commercialization. Thus, it includes all the necessary legal steps to transform the FAEB into an effective

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<sup>17</sup>The "golden share" technique is used to better assure the effectiveness of provisions in the memorandum and articles which could otherwise be cancelled, amended or their effectiveness altered by shareholder resolutions at general meetings. Usually, the provisions are to do with the maximum ownership that is allowed by one party or parties acting in concert. The "golden share" (referred to normally as the "special share") can only be owned by a government and it is a redeemable (on demand by the holder) preferred share of nominal value. No resolution which would alter the effect of the entrenched provisions in the memorandum and articles can be adopted unless the assent of the holder of the "golden share" is given in writing. If government decides that a certain restriction is no longer necessary, it can give its assent to a resolution or, if none of the restrictions are then considered necessary, it can demand the redemption of the share.

commercial entity, up to and including how the Board's Directors are appointed and to whom they are answerable.

Commercialization would be in keeping with the Strategic Plan's expectation that "only when these entities have operated as distinct businesses long enough to have a commercial track record and have taken steps to enhance their attractiveness to private investors will WAPDA maximize the value of selling these state-owned assets." The key is the determination of when the time has been "long enough."

It is possible that, because of investor interest, an advantageous privatization opportunity may present itself after corporatization, rendering the need for a period of operation under government ownership unnecessary. The distinction between the accounting profit or loss and the economic impact should be borne in mind, but the public will only understand the former. To protect the privatization initiative in general it is essential for the public to perceive that the process is being done "well."

In order to effectively assume its new mission as a private, profit-making company, the FAEB should consider the following actions:

- 1. Redefine the Organizational Structure**

The current FAEB structure consists of nine different staff and line departments, plus four circle directors reporting to the Chairman, and these numbers are likely to increase during the commercialization phase as new functions are added. (See Exhibit II on page 10.) Far too many departments are reporting to one individual and consideration should be given to combining these functions.

In addition, there are too many levels of field management within the current structure to achieve profitability. Consideration should be given to eliminating circle offices since their functions are primarily review and supervision. The few line functions performed at the circle level could easily be transferred to the divisions. Consideration should also be given to combining Faisalabad into one division and reducing the number of existing subdivisions. Furthermore, the current formula for determining divisions and subdivisions should be reviewed and rationalized.

FAEB personnel must be able to discharge their duties as efficiently and expeditiously as possible. Superfluous layers of bureaucracy and needless approval and concurrence procedures do not result in greater accountability but rather impair efficiency and discourage initiative. The FAEB must review all present delegations of authority and minimize the degree of bureaucracy. Authority must be delegated to the lowest possible level, with periodic audits and a strengthened internal audit function replacing the present hierarchy of approvals.

Based on our analysis, we would recommend there be not more than seven departments plus possibly three divisions reporting to the Chairman. The following table illustrates possible functional structure for the new entity:

PROPOSED DEPARTMENT	FUNCTIONS
CUSTOMER SERVICE	Meter reading, bill delivery, conservation, customer assistance, collections and public relations.
OPERATIONS	Work now done by the Construction/Maintenance/Operations Department, the Project Director, the Inventory Control and Division of Meters and Testing Construction and maintenance of all 11 Kv electric distribution facilities and stores Vehicle maintenance Repair and testing.
ENGINEERING	Work now done by Planning and Engineering Load forecasting and management Electric distribution design System improvement work orders Planning Mapping.
ADMINISTRATION	Work now done by Administration Department (with the exception of Transport and Services and Training) Safety Management services Security Facilities management Legal Purchasing.
FINANCE	A new department is necessary to make privatization of the FAEB financially successful. This department would be responsible for tracking the financial performance of the company, tariffs, accounting budgets and power purchase. Consideration should be given to including the billing function in this department.
AUDIT	Internal audit control.
PERSONNEL	Training Hiring Firing Collective bargaining and labor relations Medical Other personnel functions.

Exhibit V, on the following page, depicts a possible organizational structure for the FAEB.

## 2. Upgrade Administrative and Operational Systems

At the present time, there are a number of inefficiencies that should be addressed to improve operational performance. These include the current load shedding and meter reading practices, maintenance, inventory control, procurement, accounting and budgeting. In general, the activities of the FAEB are currently located in different sections of the city and consideration should be given to placing central functions at one location and modernizing the facilities.

### a. Load Shedding

Load shedding originates at the division level. This function is performed by the division engineers who decide which feeders to drop and at what time of day to drop them. A switching order is then prepared and given to the subdivision maintenance crews. These crews proceed to manually open the feeder switch, re-closing it after thirty minutes. Load shedding is now done manually, by attempting to predict peak load in the afternoon, issuing switching orders, and manually opening switches to drop feeder load. This is an inefficient way to serve customers.

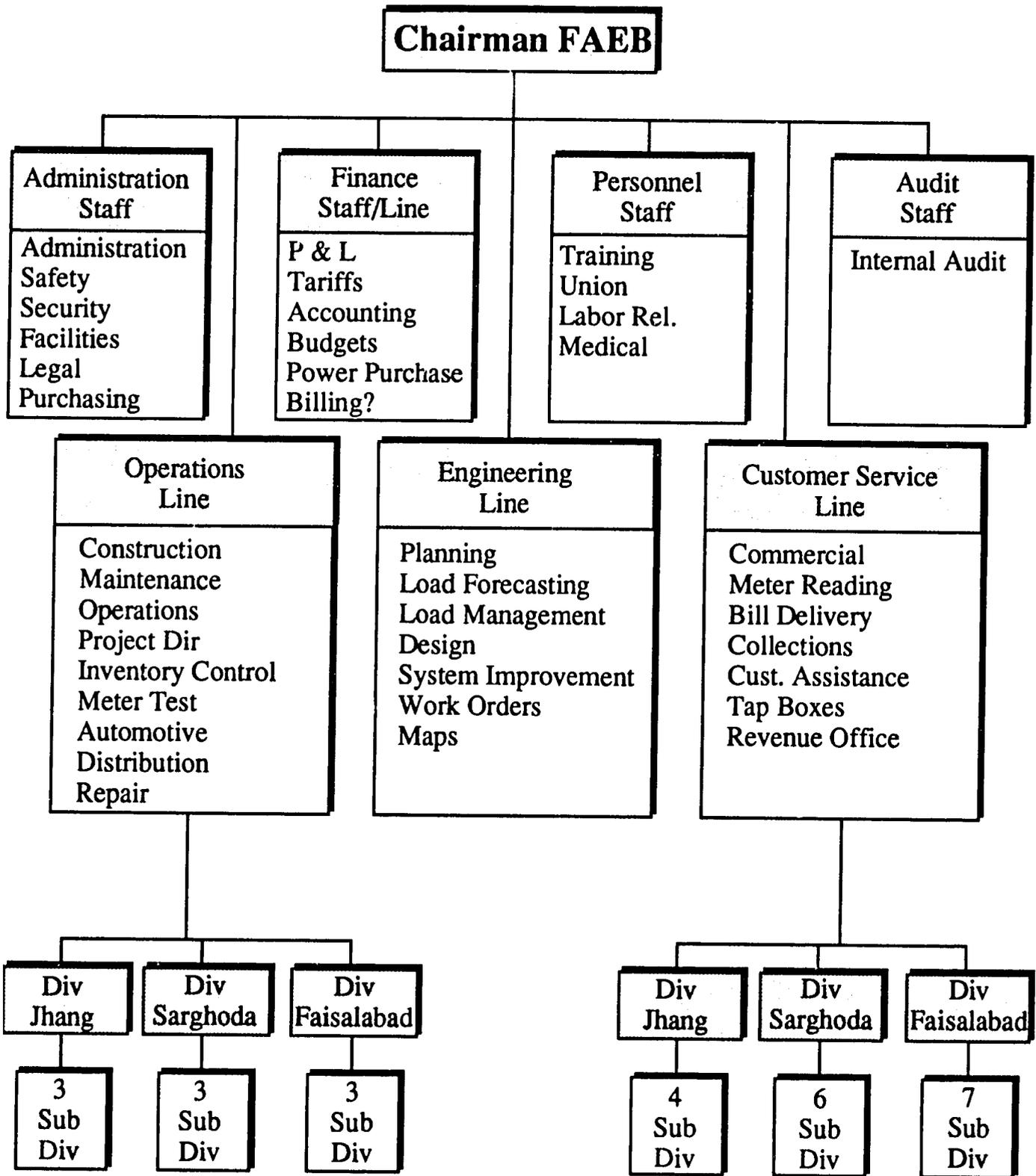
There are several options that could be considered for improving this practice. One would be to offer an off-peak rate to irrigation pump operations. In order to receive a reduced rate the pump operators would agree not to run pumps during peak load hours. Another option would be to negotiate an agreement with large customers who have stand-by generators to run the generators over the peak hours.

### b. Meter Reading

Meter reading is done at the subdivision level where there are generally 11 readers in each subdivision. Each meter reader is assigned approximately 1000 customers which appears to be unrelated to the density or mix of customers. A meter reader normally reads 60 meters per day and is expected to provide his own transportation to and from the field and is reimbursed for transportation.

All meter reading is done manually. The reader is given a meter reading route book that is computer printed and has one page per customer. He writes in the present reading and subtracts the previous reading from it and record the KWH consumption for the billing period. This document is then sent to the Revenue Office for checking and to the computer center for billing purposes.

# Faisalabad Area Electricity Board Proposed Organizational Structure



Since accurate and timely meter reading is critical to efficient billing, the number of meters read daily should be increased and the current procedures should be upgraded. To prevent the potential for fraud and corruption, meter readers should not be aware of the previous period's usage. Furthermore, the number of meters read daily should be increased significantly.

*c. Maintenance*

Maintenance of operational efficiency within the FAEB service area is limited by the lack of equipment and vehicles to assist employees in their activities. During a visit to one of the subdivisions in Faisalabad, we learned that there was only one vehicle available for a crew which generally consisted of four to five men. This means that in some cases the maintenance crew has to walk to a job site and therefore, may be unable to transport the necessary equipment. Better equipment and facilities would provide a greater degree of safety for the employees.

The FAEB does not have the expertise or equipment to repair distribution transformers or test safety devices. WAPDA's transmission crews do not use FAEB facilities and the maintenance and construction of transmission lines above 66 Kv are sometimes contracted out. Meter testing and calibration is performed by the FAEB although it is possible for customers to purchase meters and have them installed by the FAEB. For the most part, customer purchased meters are untested.

The repair of electrical distribution transformers and other electrical hardware and devices is now being performed at WAPDA. When FAEB becomes private it will be necessary to contract out this work or build and equip a self-contained repair facility and provide appropriate training for staff. WAPDA is also testing safety equipment for FAEB. This is a function that should be included in this facility.

The need to focus greater attention on safety is evident from statistics available from the FAEB. Safety reports for the nine-month period from July 1991 through March 31, 1992 indicate that fatal and near fatal accidents numbered 31, down from the previous year's total of 43. Of this total, 17 near fatal and fatal accidents affected employees and 8 affected the general public.<sup>18</sup> In the majority of the employee cases the supervisory personnel responsible were suspended or dismissed. In addition, safety issues are currently being handled by the Deputy Director of Safety who reports to the Chairman. There is no indication that he is supported by a staff with the responsibility for ensuring that safety regulations are enforced and that supervisory personnel are actively implementing the procedures.

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<sup>18</sup>In the previous year, near fatal and fatal accidents related to employees and the general public totaled 27 and 9 respectively. These figures do not include animals.

With the FAEB's privatization, safety becomes a critical issue not only because the FAEB has an obligation to protect its employees, but because privatization increases the company's liability. At present, the FAEB enjoys immunity from prosecution as part of WAPDA. However, as a private entity the risk of lawsuits from employees as well as the general public will increase significantly.

*d. Customer Billing and Collection*

The responsibility for billing customers on behalf of WAPDA belongs to the AEBs. In Faisalabad, meter readings are recorded at the subdivision level and sent to WAPDA's computer center in Faisalabad which provides services including bill preparation to the FAEB for a fee. Computer facilities are also available in Jhang and Sargodha. Customer payments can only be made to authorized banks which are posted through the computer system.

The billing and payroll systems were implemented in Faisalabad in 1985 and 1990 respectively and the stores system is now being developed. There are no known plans for additional systems. The customer master file contains consumption history for 12 months, application, connection, next due date, money balances, customer name, address and account number.<sup>19</sup> Meter numbers are not included although a master file record space exists for this, nor are qualitative data such as difficult meter reading conditions and previous history of meter tampering included. Provision is made in the master file for up to four meters per customer, which is said to be satisfactory as no customer now has more than three. The turnaround time from the submission of the meter reading input to the production of bills is two days. The system is on-line and edit routines include a hi/lo test among others to obviate the need for key-verification. Apart from bills, the system produces the list of bills sent each cycle, billing analyses and disconnection lists.

In the case of the payroll system, only base pay is computerized and overtime, which only applies to a very few categories of staff such as drivers, is calculated manually by the FAEB. Therefore, the only input required is changes to master file information such as recruitment actions, promotions, terminations, tax and other deductions. There are 5,000 to 6,000 employees from the Faisalabad circles on the system and payrolls are processed once per month.

The stores system is designed to capture existing data kept on the manual system. The advantage seen in computerizing the system is merely the reduction of manual effort. An information system intended to address only stores management is not being

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<sup>19</sup>Billings are done monthly on a cycle basis.

implemented. A review of the stores master file format indicates that the information being captured is rudimentary. For example, back orders are not to be captured and lead times are not indicated.

The hardware configuration utilized in Faisalabad to serve its two circles is a Dec MacroVax-2 CPU with a 2.6 gigabyte hard disk and a tape drive. This configuration enables the FAEB to handle up to 500,000 customers, the largest application. Based on assumptions that new connections will increase at a rate of 3,000 per month, it is expected that this ceiling will not be reached for the next five years. An upgrade of hardware is under consideration since processing time is slow, particularly for printing invoices, and the unit has to operate on a 24 hour basis.

*e. Accounting and Budgeting*

For the most part, the financial planning, accounting, audit and budgeting functions are performed primarily by WAPDA. Like the other AEBs, the FAEB provides WAPDA with monthly trial balances and daily cash reports, serving merely as a supplier of information rather than playing an active role in analysis and planning. Operating statistics and comparisons of actual and budgeted expenditure is done quarterly. Complete financial statements are prepared annually and inventory levels for fast-moving items are now monitored semi-monthly. These functions will have to be developed within the FAEB or transferred from WAPDA.

• *Accounting and Internal Audit*

WAPDA has a centralized fixed asset accounting system which maintains distribution asset records down to the level of each feeder, showing number of poles, transformers and meters, length of conductors and services. Serial numbers of the individual meters and transformers are not shown. The printout for FAEB is some 370 pages long, with about 5 lines per page, showing description and code, location and code, quantity and cost. The year of acquisition and estimated service life are not shown. Annual depreciation is calculated using WAPDA's composite rate of 3 1/3%. There was no grand total for the FAEB so we were not able to satisfy ourselves that the subsidiary asset register agreed with the control total, nor was a classification of assets by type available. There will be a need to review the system to capture the data and to verify the physical existence of the assets prior to corporatization. The accounting function within the FAEB is manual at present. Consideration should be given to computerizing this function.

In keeping with the commercial objectives established by its new mission, a privatized FAEB should give serious consideration to minimizing its investment in stores and adopt more sophisticated techniques for determining minimum and maximum quantities. It

must be capable of procuring items now bought and tested by WAPDA. A potential problem might be the loss of bargaining power that WAPDA might now have with suppliers - so it may be possible to structure a cooperative arrangement on commercialization in some way between WAPDA and the FAEB. FAEB staff should be able to determine the location of every meter by serial number at any time whether it is at customers' premises, in stores or being repaired.

We estimate that if stock levels were reduced by 10%, the value would be reduced by Rs 16.5 million, representing a saving in interest cost of Rs 3.2 million per year. In practice it may be possible to reduce stock levels by even greater amounts as a 10% reduction only would be unusual in a transition from an unsophisticated system to a sophisticated one.

The internal audit function in the FAEB is conducted through a WAPDA office which does not report to the FAEB. Three types of internal audits are conducted by the office. These relate to revenue, connections and expenditures. No computer audit work is conducted although a plan exists to train staff in computer auditing techniques.

- *Revenue* audits are done at each revenue office on a quarterly basis to detect errors in billings and to formulate claims on consumers. There are 18 teams with the rank of Grade 16 who are rotated through the revenue offices to preserve their independence from customers and staff. Potential adjustments to customers' bills are discussed with the Executive Engineer and billed if sustained. On subsequent visits the auditors follow up to determine whether customers have actually paid additional amounts billed.
- *Connection* audits seek to verify, by visits once per year, that applications for service, job orders and contributions in aid are correctly computed and collected. Since independence must be preserved between the auditors and customers, auditors are always accompanied by other staff members.
- *Expenditure* audits cover all types of expenditures, including payrolls. Part of the verification process is physical inspection of stores and construction work.

- **Budgeting**

Budget allocations are made by province as decided by the Finance Commission. This dictates how much of the development planned for each AEB will actually receive funding. AEBs decide how to utilize the global budget on which projects but are given targets by WAPDA. There is no budgeting function within the FAEB itself, and this

function must be developed within the new entity to support short and long-term financial and business planning.

### **3. Develop Demand Forecasting, Tariff Setting and Other Capabilities**

The importance of load forecasting and tariff setting cannot be overlooked. These functions are critical to the financial viability of the FAEB. These functions are key to profitability as utility companies need to know which markets are profitable, whether they should promote sales or conservation and how to obtain supplies (and reserves) at the lowest cost. Demand forecasting and analysis as well as tariff setting is currently the responsibility of WAPDA and is not being addressed at the FAEB. The latter's sole function in this process is to provide the information requested for these activities. Some information related to consumption patterns is currently available through WAPDA's computer facility in Faisalabad and there is some activity in distribution planning, but for the most part, there is little sophisticated expertise in these critical areas within the FAEB at present. Furthermore, in order to support this function, the FAEB needs to develop a better understanding (and data) relative to its customer base. At the present time, the FAEB's relationships with its customers are limited to complaints. The FAEB will benefit more within a commercial environment from adopting a more "proactive/marketing" rather than a "reactive" approach to customer relations in order to increase its customer base and improve service provision.

### **4. Develop Staffing Plan**

A major problem facing the Area Board is the absence of definitive statistics as to the number of individuals employed by the Area, with the latest statistics having been compiled in early 1991. These indicate that as of January 1, 1991, 167 of the FAEB's employees were classified as Engineers, with a further 68 classified as Specialist and Non-Specialist Officers. 3690 (26%) fell within the category of "establishment" employees (technical, ministerial and accounts) with a further 7887, or 56%, being officially classified as skilled and unskilled. The vagueness of position descriptions and job classifications, as well as a certain arbitrariness in how individual employees are classified, renders it difficult to ascertain the appropriateness of these staffing levels.

The FAEB currently follows WAPDA/civil service position and job classification procedures and practices. These tend not to be helpful in accurately describing the functions, duties and responsibilities of the actual employees. The privatized entity must thoroughly review employee and position classification and ensure that employees are placed appropriately.

In addition to revising and clarifying how civil service status will be dealt with post-divestiture, the FAEB will want to develop procedures to handle inevitable labor

displacements as smoothly as possible. Consideration should be given to offering employees incentives to forego employment with the Area Board. Similarly, amendments to the civil service law should be considered to allow individual employees to voluntarily relinquish their civil service status in exchange for increased promotion and compensation opportunities. Moreover, efforts should be made to transfer qualified individuals from within WAPDA itself to fill positions identified in the new organizational structure.

Whatever scheme is chosen to mitigate the effect of labor displacement, care must be taken to ensure that members of the labor force at any time do not have reason to fear for job loss through redundancy, as this will lead to an undercurrent of unrest for a long period. This argues in favor of releasing all redundant workers at the start of the commercialization (not corporatization) process.<sup>20</sup>

## **5. Develop Procurement Procedures, Project Control and Construction Standards**

### *a. Procurement*

The FAEB does its own procurement except for the list of items procured through WAPDA in Lahore which are the largest component of value (transformers, meters, conductors and certain other items). All distribution materials and supplies up to the 132 Kv level may be procured from local manufacturers, some of whom produce under license from Japanese or European suppliers. Price comparisons are done at c.i.f. Karachi for imports (which excludes import taxes amounting to some 125%) and at the ex-factory gate level for locally supplied items. Price comparisons even on that basis are said to favor local suppliers except in the case of China whose products do not match the required specifications. Grant-funded purchases enter the country duty-free. However, there is presently little grant funding available. The use of donor agency funds imposes additional procurement requirements on WAPDA and the AEBs which both emphasize cost advantages rather than quality and disrupt the smooth completion of projects. An

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<sup>20</sup>Mechanisms to continue the employment of excess employees have been used in privatizations elsewhere. Where there is an obligation to incur that extra cost as part of the privatization transaction, the investor will naturally reduce his offer. However, the issue of excess employment is not confined only to cost. Overstaffing can have an adverse effect on the morale and performance of the entire workforce. Whether or not the GOP identifies a means to mitigate excess employment costs (for example through tax concessions), investors/employers will be reluctant to be involved with a company where the prospects of improving poor work habits and morale are remote due to the forced continuance of overstaffing.

It has been suggested that a source of funding redundancy might be found in a pension scheme. However, unless the benefits of the scheme specifically included redundancy and were factored into the actuarial valuations, this might be illegal or financially unfeasible.

independent distribution company that is free of these restrictions would be able to purchase goods and services in a way that better meets its needs and schedules.

Another disadvantage of overseas procurement is the long lead times and the consequent need to tie up funds in establishing letters of credit for 6 months. It is likely that an independent distribution company would not require such a sophisticated procurement system as the current one used by WAPDA, primarily since the current one also addresses transmission and generation needs and takes into account donor agency prescribed procedures.

Within the past 11 months, the FAEB Stores Department received Rs 560 million of materials and supplies and Rs 520 million was the cost of goods issued from stores. There could be some double counting as stores transfers between locations are included. Stores on hand as of May 31, 1992 were worth Rs 165 million.

The mission of the department is defined by its employees as ensuring that adequate stores are on hand to facilitate the smooth operation of the Board. Maximum and minimum stock levels are set but not on a scientific basis. Generally, minimum levels are 6 and 2 months respectively with fast-moving "important" items being about one month and 2 weeks respectively. Levels in field stores average about 15 days<sup>21</sup>. There is no pressure to minimize stocks at the FAEB level. On the contrary, towards the end of the financial year the FAEB increases its purchases to ensure that its budget allocation is fully utilized and that issues to jobs can be made to meet the target for connections for the year.

In order to rationalize levels by transferring stock from AEBs with excess to those at the margin, WAPDA has developed reports which set out inventory levels for fast-moving centrally-ordered distribution items, in absolute numbers of units of issue by AEB and in relation to usage throughout the sector. These reports will also reflect quantities expressed in number of months usage by AEB in the near future.

The usual procedures are in effect concerning receipt and issue, using stock cards and pre-numbered forms. Traditional controls over meters do not appear to be in force and serial numbers of household meters are only recorded on issue from stores, not on receipt, although the information is contained on the suppliers invoice. Items are costed on the FIFO basis. The manual system is currently being computerized and the two systems are now running parallel. No target date for full conversion has been set.

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<sup>21</sup>Calculations based on the figures quoted above indicate that there is  $(165/520) \times 11$  months on hand--an average of 4 months supply.

If the FAEB is to be an autonomous, financially viable entity, it will need to have control over the procurement of all materials, supplies and services. It could be feasible that a privatized FAEB may find it beneficial to continue to have WAPDA act as its purchasing agent or, instead, to enhance its own capability to perform this function internally. Of course, the first option will only be available if WAPDA is willing to perform this service and if satisfactory commercial arrangements can be negotiated between WAPDA and the FAEB.

*b. Technical Standards*

Technical standards are required for the design and construction of facilities as well as the procurement and installation of equipment. These are currently established and enforced by WAPDA. However, the existing standards may not be appropriate to a privatized FAEB and may have to be updated and modified either by WAPDA or NEPRA. In this case, the private FAEB may require technical assistance and training to ensure that the new standards are established and enforced. It may be possible to transfer expertise from WAPDA.

**6. Design and Install System Coordination Procedures**

As the privatization of the power sector is implemented under the WAPDA Strategic Plan, it will be necessary to design and install system coordination procedures to interface with the transmission grid. Facilities such as relays for the protection of the system are currently in place. However, the need for additional facilities or upgrade of existing ones may be necessary with privatization. A similar situation exists in relation to metering. As a private entity, FAEB metering should be done at the 11 kV bus-bar which is not the case at the present time.

**7. Develop Training Plan**

A key element of the commercialization of the FAEB is the identification of additional training for existing functions and new training for functions that are being added. The training function is currently decentralized within the divisions. Efforts should be made to centralize this function so that training needs assessments can be conducted and a plan developed and implemented for the new company.

**D. Privatization**

In view of the amount of time required to implement the corporatization process and the institutional strengthening tasks which are part of the commercialization process, it is possible that market and other conditions might change significantly from those prevailing at present. Therefore, it is not possible to define a strategy at this time.

However, we will raise the major issues and identify the tasks to address these issues and the appropriate expertise that should be contracted for this purpose.

The commercialization phase will be of unpredictable length. If market conditions and investor interest are extremely favorable on the completion of corporatization, it may be possible to proceed straight from corporatization to privatization without there being a period of government ownership following corporatization. The Privatization Commission will have to determine when the commercialization phase has achieved its objectives. In the light of the performance of the company and the state of the market, the Privatization Commission should submit its final plan for approval by the political directorate. In ideal circumstances, which are seldom found, the political directorate could give the Privatization Commission the authority to carry out any of the approved strategies without further reference back to the higher level to enable the transaction to be completed in the shortest time. If there is a need for the political directorate to take actions to clear legal obstacles at this time, the process will be delayed.

The performance of the enterprise and the state of the markets and investor interest will have to be monitored to determine when privatization in an acceptable manner can be accomplished. In the meantime, all the work to enable the transaction to be done quickly should have been accomplished. A corporate financial adviser who is involved during the corporatization phase can stay in touch with potential investors during the process and assess the level of interest.

### **1. Identify Privatization Strategy**

Our preliminary estimates based on the information obtained during this assignment show that the value of the FAEB's assets is Rs 4.7 billion. The amount which investors will have to find will depend upon (i) whether the asset value is supported by the rate structure; (ii) the debt/equity structure; and (iii) the portion of WAPDA's shares that are to be divested. There are several options available as to how privatization might be carried out or phased. Even before corporatization is complete, the GOP can be considering available privatization techniques to at least decide on permissible techniques in the context of wider industry and political issues. Closer to the time, the decision as to the preferred method can be made. Possible privatization methods could be:

#### *a. Outright Sale of Shares*

Outright sale of the shares in the corporatized/commercialized FAEB by WAPDA can be made of all or part of its holding (at least a clear majority would be advisable). The sale could be made to a large investor, the public at large and employees of FAEB and employees of WAPDA. Special provisions concerning the voting rights of ordinary

shareholders to elect directors and auditors need to be considered carefully in order to avoid a situation whereby if WAPDA does not sell its entire holding and the special provisions are lifted, WAPDA may regain control through its residual holding.

The sale of a significant portion of the shares to a large investor group would be advantageous if management skills could be introduced by the investor. A public offer increases the popularity of privatization and achieves several traditional privatization advantages. Sales to employees at the FAEB and WAPDA levels would serve to motivate the employees and render the privatization more acceptable. There are 14,000 FAEB employees and 150,000 WAPDA employees. Using the estimated figures appearing elsewhere in this report and assuming a 50:50 debt/equity ratio, if each WAPDA employee could invest about Rs 16,500 on average, the employees could own the entire company. The problem with this scenario is that after having been done once it could not be repeated for other AEBs until the employees had access to sufficient resources to participate in the next offer.

*b. Outright Sale of Shares in a Company Containing the Assets of a Corporatized FAEB*

If the commercialization phase lasts for a number of years, investor interest in the corporatized FAEB as an entity may decline because of the risk of unrecorded liabilities and contingencies. Furthermore, assets must be depreciated for tax purposes based on historical cost. Even though assets may have been transferred to the corporatized FAEB at their then replacement cost, these will become dated if there is a long interval between corporatization and privatization. Investors may therefore prefer that the assets be sold to a new entity created just prior to privatization. The powers granted to, and agreements made with, the corporatized FAEB would have to be rescinded and granted to the privatized FAEB.

*c. Management Contract*

A management contract entered into with an experienced electricity distribution entity would often be regarded as commercialization instead of privatization. Under a management contract the management would receive a fee for services, some of the fee being based on performance. The management contractor would not employ the sub-management staff and this may restrict freedom of action in this most important area. In addition, the degree of risk associated with management contracting is not as significant as the risk taken under other alternatives.

*d. Long-term Lease*

Instead of selling the operation, the assets utilized by the commercialized FAEB may be leased by the corporatized entity to a lessee for a significant period. The lessee would be responsible for hiring all staff and running the utility, paying the owner of the assets a rental that may consist of a fixed element adjustable at predefined intervals and a variable element depending on results.

*e. BOT/BOO Schemes*

BOT (Build-Operate-Transfer), BOO (Build-Own-Operate), BLT (Build-Lease-Transfer, ROT (Rehabilitate-Operate-Transfer) schemes are mainly suitable for the provision of finance to enable expansion to take place. However, these schemes do not address the main privatization objectives in the strategic plan.

**2. Prepare Implementation Plan**

*a. Public/Employee Relations*

Under corporatization we indicated a need for an adequate public relations program. In that phase, reference to privatization will be in the context of it being an ultimate probability. As the strategy becomes more firmly defined there will be a need to explain the impact of the proposal to the affected groups.

*b. Legal Obstacles*

The nature of legal obstacles including labor issues, under the various alternative privatization methods, will have to be identified and a strategy will have to be developed for dealing with these. One potential obstacle, for example, is the insistence by the Corporate Law Authority that shares may not be purchased in installments nor may discounts be given to any class of applicant. This would be important if it is judged that the size of the transaction to transfer control is too large to be absorbed by the targeted investors at one time.

**3. Implement Transaction**

Depending on the strategy and the implementation plan that is finally approved, this step may include the preparation of offer documents, the solicitation of investment, the evaluation of applications from bidders, and eventually, the transfer of ownership. The latter will differ depending on the selected strategy which may require inventory-taking and the transfer of obligations and rights previously transferred to the corporatized FAEB at replacement cost.

The valuation will become dated if there is a long interval between corporatization and privatization. Therefore, investors may prefer that the assets be sold to a new entity created just prior to privatization which would require new rights and that agreements be made with the new company.

#### **IV. IMPLEMENTATION PLAN**

Based on the recommendations discussed previously, the team has identified the following tasks that should be carried out in order to commercialize the FAEB and establish the foundation of a financially viable distribution company. Exhibit VI contains a timeline depicting the scheduling and sequencing of these tasks, while Exhibit VII indicates the Level of Effort required. Both Exhibits are located at the end of this Section.

##### **A. Corporatization**

###### **1. Legal Status**

- Task 1* Identify and draft legislative changes and legal documents relative to the corporatization of the FAEB.
- Task 1.1* Review legal and statutory framework. This activity will include the review of existing agreements, contracts and other commitments of the FAEB and WAPDA to ensure that these are compatible with the status of the new company and, if not, whether they should be renegotiated or not.
- Task 1.2* Review WAPDA Act and other relevant legislation and draft necessary amendments to permit the Authority to create subsidiaries and invest in them and to permit WAPDA and its subsidiaries to divest themselves of their assets. This would include the necessary agreement to permit the creation of the FAEB as a subsidiary of WAPDA.
- Task 1.3* Conduct comprehensive review of Pakistan's legal code and the laws of the Punjab to ensure that all applicable statutes are conducive to the aims and practicalities of privatization and corporatization. Attention should be given to ensuring that the provisions of the Land Acquisition Act, Essential Services (Maintenance) Act and Electricity Act that affect distribution (i.e., FAEB operations) are transferred to the FAEB.
- Task 1.4* Review Service Tribunals Act and Industrial Relations Ordinance to determine how corporatization and privatization will affect the civil service status of FAEB employees. Define policies for the treatment of employees previously employed by WAPDA but subsequently employed by the FAEB. Assist in the negotiation of labor agreements and contract transfers.

- Task 1.5* Define and obtain agreement with WAPDA/GOP on geographic and technical boundaries that relate to the FAEB service area and on subsidy mechanism.
- Task 1.6* Assist the FAEB in establishing commercial arrangements. This should include drafting and negotiating power purchase agreements between the new company and WAPDA and other generators and any other agreements (shared facilities use, etc.) deemed necessary for the new company to function effectively. These negotiations should also address the impacts of WAPDA's load-shedding schemes.
- Task 1.7* Draft and issue License. This process should also address non-price issues such as target levels of service, customer rights (right to be supplied, dealing with delinquent bills, etc) and load shedding monitoring to ensure that all customer classes are treated fairly.
- Task 1.8* Draft Memorandum and Articles of Association and other documentation necessary for the incorporation of the new company. Execute Legal Documents and issue shares in the new company.
- Task 1.9* Identify policy and mechanism relative to the appointment of new company Directors and appoint Directors.
- Task 1.10* Design and execute public relations program.
- Task 1.11* Transfer Assets.

### **Consulting Skills Required**

- **Attorneys.** These individuals should have previous experience in drafting legislation and preparing legal documentation associated with the privatization of state-owned enterprises, especially in the power sector.

### **2. Financial, Accounting and Tariff Issues**

- Task 2* Conduct review and valuation of assets/liabilities to be transferred from WAPDA to the new company and develop financing plan.
- Task 2.1* Identify inventory and assets to be transferred and perform "due diligence" technical assessment of physical plant and assets.

- Task 2.2** Review and evaluate the FAEB/WAPDA's accounting policies and procedures for recording transactions to determine appropriate value basis for the transfer of assets and liabilities. This sub-task will include a review of WAPDA policy for capitalization of interest and other costs, the development of a chart of accounts to reclassify revenue and expenditures and the preparation of a statement which identifies the fair value of assets in accordance with internationally accepted accounting principles for the new company.
- Task 2.3** Develop a financial model for the new company. This sub-task will involve a review of existing models utilized by utility companies overseas which can be modified if necessary. If existing models are inappropriate, a new model should be developed.
- Task 2.4** Prepare a detailed business plan for the company based on financial projections over a 5-10 year period. This should include pro forma balance sheets and income and cashflow statements, revenue calculations, projections of required investment, operating and maintenance costs and a financing strategy to meet resource requirements.
- Task 2.5** Establish budgeting function within the FAEB which will support financial planning, encourage cost control and provide information for performance monitoring. This activity should include a review of WAPDA's current budgeting procedures and those generally utilized by the industry, internationally, as well as recommendations for improvement or introduction of new techniques and assistance in their implementation. Efforts here should focus on the preparation process and participants, accountability for variances, performance of variance analysis and monitoring actual and variances against plan and the production of timely, useful and relevant reports.
- Task 2.6** At the end of the commercialization period, perform an independent audit of the first year(s) of operation in preparation for the privatization of the company.

### **Consulting Skills Required**

- **Financial Analysts/Accountants.** These individuals should have previous experience in financial analysis, modeling and the valuation of enterprises in the utility sector. Previous experience in developing countries should be required as well as degrees in finance, business administration, accounting, economics or a related discipline.

- **Electrical Engineers.** These individuals should have at least 10 years of experience working with an electric utility in the U.S or U.K. Previous experience in conducting technical "due diligence" reviews of power facilities undergoing privatization in developing countries should be optional.

*Task 3* Determine Ratemaking Process.

*Task 3.1* Conduct Cost of Service Study for FAEB.

*Task 3.2* Review existing FAEB tariff structures and policies of GOP and NEPRA as they relate to ratemaking. This sub-task will involve a review of existing and historical tariffs to determine the basis for rate setting such as the relationship between rates and costs (marginal vs. average), the tariff adjustment process and the handling of costs and social objectives (rural service). In addition, an assessment should be made of the adequacy and efficiency of previous tariffs relative to meeting revenue requirements and supporting the provision of service.

*Task 3.3* Collect and analyze data and relevant information. This sub-task addresses the identification, collection and analysis of general cost data and cost attributions, demand by time of day and customer group, sales demand, pattern of demand, financing costs and other relevant data.

*Task 3.4* Develop tariff model. This will involve a review and modification of existing models utilized by WAPDA and the Ministry of Planning and Development's Energy Wing. If these are inappropriate, a new model will be developed.

*Task 3.5* Determine initial rates and publish tariff schedule.

*Task 3.6* Identify classes of customers that would require subsidies under GOP policy and determine the level of subsidy support that would be required by the new company. Negotiate subsidy support with WAPDA/GOP.

*Task 3.7* If the NEPRA is in place, review tariff structure (with subsidies) and initial rates with the NEPRA and obtain approval as appropriate.

### **Consulting Skills Required**

- **Financial Analysts/Economists.** These individuals should have at least 5-10 years of experience in conducting cost of service and tariff studies,

particularly in the power sector in developing countries. In addition, they should have undergraduate or graduate degrees in economics, finance or a related discipline.

## **B. Commercialization**

### **1. Organizational Structure**

*Task 4* Conduct detailed review of the existing FAEB organizational structure.

*Task 4.1* Review current organizational and management structure. Activities here should include the division of functions and responsibilities between WAPDA and the FAEB. This sub-task should also include an investigation and analysis of results of the restructuring of the Gujranwala AEB.

*Task 4.2* Design a rational structure for the new company which is in keeping with its commercial objectives. Efforts should be made here to look into the opportunities for reducing management levels, merging functions and promoting overall improvement in the work flow.

*Task 4.3* Define organizational and management functions. With the addition of new functions and the merging of existing ones, it would be necessary to define the functions needed for the new entity.

### **Consulting Skills Required**

- **Organizational Specialists.** These individuals should have 5-10 years of experience in organizational management especially as it relates to the utility industry and previous experience in conducting organizational studies of SOEs undergoing restructuring or privatization. Experience in developing countries should be required.

### **2. Administrative and Operational Systems**

*Task 5* Conduct an efficiency review of existing operating and administrative systems and develop recommendations for their improvement.

*Task 5.1* Review current inventory control by taking a sample of high value items to identify lead times, safety levels and other relevant information to determine minimum and maximum levels, ensuring that operations would not be disrupted by shortages. The sample should include items presently procured by WAPDA. Compare findings with average levels over the past

year and quantify the potential savings in interest cost. Review current meter inventory control, storage of equipment (transformers, cables, capacitors, etc).

*Task 5.2* Review existing accounting, billing and customer information systems and other commercial arrangements to identify areas for improvement and upgrade. This sub-task should include an analysis of functions currently conducted by WAPDA such as the development of master programs for the FAEB billing system and the identification of new functions such as the computerization of the accounting system and the establishment of a customer information system. It will also include a review of the implementation of systems projects that are currently being funded by donor agencies to prevent duplication of efforts and improve overall coordination.

*Task 5.3* Review and analyze future opportunities for cost reductions related to technical, systems and plant operations. This should include the upgrade of existing facilities and equipment.

*a. Systems*

*Task 6* Prepare a comprehensive systems plan for the new company.

*Task 6.1* Review existing systems to identify areas of improvement. This should include a review of the existing billing and inventory control systems to ensure that they are adequate for the commercial status of the new company.

*Task 6.2* Perform a systems requirements definition to identify needs in areas such as procurement, accounting, billing and customer information.

*Task 6.3* Design and analyze options in response to needs identified previously. This sub-task should include a cost/benefit analysis relative to the implementation of each option.

*Task 6.4* Recommend the selection of the best option and prepare a plan for its installation.

### **Consulting Skills Required**

- **Accounting/Inventory Control Specialists.** Consultant with a degree or relevant experience (minimum of 5 years) in accounting or inventory

control, specifically as it relates to electric utility distribution companies. In addition, the consultants must have a working knowledge of the latest proven techniques for optimizing stock levels for such companies. Previous experience in the implementation of such systems in developing countries should be required.

- **Systems Analysts.** Consultant with a degree in information technology, computer science or relevant experience in system analysis as well as experience (minimum of 5 years) in performing requirements definitions for MIS systems.
- **Information Technology Specialist/Programmers.** Consultant with experience in the design and implementation of systems, specifically in the modification of existing systems and the design and development of customized systems. This pertains only to Phase II and beyond if a package solution is not available.

*b. Internal Audit*

*Task 7* Establish internal audit function in FAEB.

*Task 7.1* Define structure of department. This sub-task should address such issues as number of employees, line of reporting authority and objectives (provide independent review of department performance, ensure compliance with established policies and procedures, etc.). It should also include a review of the current WAPDA internal auditing function.

*Task 7.2* Develop job descriptions. Once the structure of the department has been defined, descriptions should be prepared for each function to be included in the department as well as academic and skill levels required by staff.

*Task 7.3* Develop procedures and policies. This sub-task would include a review of WAPDA's existing procedures, the identification of areas of weakness such as the absence of computer audits, the upgrading of procedures to comply with internationally accepted auditing standards and the formulation of new policies and procedures as needed.

*Task 7.4* Assist in the hiring of new staff or the transfer of existing staff from WAPDA and the identification of training needs. Based on job descriptions developed previously, efforts should be made to identify appropriate staff from the existing WAPDA internal audit staff based in Faisalabad.

*c. Repair and Maintenance*

- Task 8*      Establish Repair Facilities and Expertise.
- Task 8.1*     Review current maintenance facilities, practices and skills in the FAEB and WAPDA. This should also include the testing of meters and safety devices.
- Task 8.2*     Develop options for providing service which should include a cost/benefit analysis of building in-house capabilities or contracting out to external providers.
- Task 8.3*     Define department structure and functions.
- Task 8.4*     Define job descriptions and needed skills. This should include an analysis of the capabilities and expertise available in WAPDA for transfer.
- Task 8.5*     Depending on the option chosen as a result of Task 8.2, assist the new entity in preparing bid documents for construction and outfitting (in-house option), establish specifications and assist in the evaluation of proposals. In the case of the second option, assist in the preparation of bid documents, supervision of the bidding process, evaluation of proposal and negotiations with winning provider.
- Task 8.6*     Design and establish procedures for monitoring the operations and maintenance of the facility. These would differ depending on the option selected. In the case of the establishment of an in-house facility, a training plan should be developed.
- Task 8.7*     Establish/update procedures for testing meters and safety devices as needed.

**Consulting Skills Required**

- **Electrical Engineers.** These individuals should have previous experience in the maintenance of similar facilities for a utility distribution company or experience designing and establishing similar operations for privately owned distribution companies. Previous experience in developing countries should be required.

*d. Safety*

*Task 9* Improve Safety Procedures.

*Task 9.1* Conduct a review of existing procedures. Existing safety procedures may not reflect the nature and extent of the liability to be assumed by the privatized FAEB. It is therefore necessary to review and modify these procedures accordingly.

*Task 9.2* Develop a system for implementation of procedures. Once procedures have been updated or modified as needed, a system should be developed for their implementation. This includes the structuring of a safety department within the new company and the development of appropriate job descriptions.

**Consulting Skills Required**

- **Certified Safety Engineers.** These individuals should have 5-10 years of experience in developing and implementing safety procedures for utility distribution companies either in the U.S. or the U.K. Furthermore, these individuals should have experience conducting similar assignments in developing countries.

*e. Marketing/Customer Relations*

*Task 10* Establish marketing/customer relations function within the FAEB.

*Task 10.1* Define the nature of this function and develop a structure for such an activity including the determination of staff size, management and location within the company. Establish policy guidelines and procedures for the implementation of this function. Procedures to be established could include a data base of customer information (type of load, appliances, etc.).

*Task 10.2* Develop job descriptions for each function defined including required academic qualifications and skill levels.

*Task 10.3* Assist in the identification and selection of appropriate candidates.

*Task 10.4* Assist the FAEB in the development and implementation of a marketing strategy. This involves researching and analyzing customer base, identifying customer needs and objectives, developing strategies for increasing sales, promoting conservation and other business objectives, selecting an

appropriate strategy and designing a marketing campaign to implement strategy.

**Task 10.5** Identify training inputs which would be integrated into the overall training plan. Recommendations should be based on current skill levels and focus on appropriate types of training vehicles (seminars, workshops, on-the-job, etc.) as well as training sources (in-house, local and overseas).

### **Consulting Skills Required**

- **Marketing Specialists.** These consultants should have a degree in Marketing or a related discipline as well as a minimum of 10 years experience in customer relations and/or marketing for electric utilities. In addition, these individuals should have managed a marketing department and designed and implemented marketing strategies and campaigns.

### **3. Load Forecasting, Tariff Setting and Commercial Arrangements**

**Task 11** Establish Load Forecasting Capabilities.

**Task 11.1** Review existing load forecasting function currently conducted by WAPDA. This sub-task would include a review of WAPDA's forecasting procedures and models as well as FAEB's PC-based models for distribution planning.

**Task 11.2** Collect and analyze additional data. Based on existing available data, identify additional relevant data relative to such factors as income and consumption patterns by customer.

**Task 11.3** Develop model. This sub-task should involve a review and analysis of models currently utilized in the industry as well as those utilized by WAPDA and modification of appropriate models. If existing models are inappropriate, then a new model should be developed.

**Task 11.4** Define structure and functions of load forecasting/tariff setting functions. This sub-task addresses the institutionalization of the load forecasting function within the FAEB and involves defining the structure of a new department including number of staff, objectives and relationship with other functions and departments.

**Task 11.5** Develop job description and define necessary skill levels. Based on the objectives and structure outlined earlier, job descriptions should be developed for each position identified and the appropriate academic

qualifications and required skill levels should be described. Assistance should be provided to the FAEB in identifying suitable job candidates from within WAPDA or from outside if appropriate.

**Task 11.6** Prepare tariff/load forecasting manuals which contain detailed descriptions of procedures, methodologies and models utilized in tariff studies or load forecasting exercises previously.

**Task 11.7** Develop inputs for training plan. This should include basic economic principles such as the long-term marginal cost concepts, the derivation of long-term marginal costs of distribution, allocation of marginal costs and the formulation of tariff structures.

**Task 11.8** Establish commercial arrangements. This sub-task is closely related to sub-task 1.6 and seeks to establish in-house capabilities within the FAEB to utilize forecasting and budgeting functions to support power purchasing activities. This will include the development of model contracting, and the establishment of procedures and guidelines for negotiating and closing power purchase and similar agreements.

#### **Consulting Skills Required**

- **Economist/Financial Analysts.** These individuals should have either a B.A. or M.A. in Economics, Finance, Accounting or a related discipline and previous experience in demand forecasting for tariff design and financial modelling in developing countries.
- **Attorneys.** These consultants should have an understanding of Pakistani contract law and procedures as well as an understanding of utility contracting procedures as they relate to the negotiation of power purchase agreements.

#### **4. Staffing Plan**

**Task 12** Prepare Staffing Plan for the new company.

**Task 12.1** Review current job classifications and compensation levels. Since these currently are based on WAPDA's systems, this sub-task will include an analysis of WAPDA's systems.

**Task 12.2** Define new classification and compensation levels. Based on the analysis of the current system, it would be necessary in this sub-task to define job

classifications and compensation levels appropriate to the company's new commercial objectives.

- Task 12.3* Develop company personnel policies and procedures. These should include a definition of company recruitment policy, pension, health and other benefits as well as promotion and evaluation criteria and procedures.
- Task 12.4* Develop job descriptions and review existing skill base for purposes of recruiting new staff and retraining and transferring existing FAEB or WAPDA staff. This should address the need to introduce new expertise and upgrade existing skills to meet the needs of the new company. Emphasis here should be on the use of existing skills and staff in WAPDA.
- Task 12.5* Develop redundancy policies and procedures. An objective system should be implemented to ensure that downsizing is perceived as fair and impartial. This should be accompanied by an effective employee counselling program.
- Task 12.6* Provided the necessary changes are made in civil service regulations, FAEB should develop an early retirement program. Consideration should also be given to developing a program wherein employees who voluntarily relinquish their civil service status will be eligible for special promotion and compensation opportunities.
- Task 12.7* Assist WAPDA in the selection of management personnel for the new company.

### **Consulting Skills Required**

- **Human Resource Specialists.** These individuals should have previous experience in the structuring of privatized entities in developing countries especially as it relates to the definition of human resource policy. These individuals should also have experience in designing and implementing benefits packages. Knowledge of the utility industry should be optional.

### **5. Procurement Procedures, Project Control and Construction Standards**

#### *a. Procurement*

- Task 13* Assess the procedures employed by WAPDA for procurement on behalf of AEBs and, given the objectives of an autonomous FAEB, recommend

alternatives that would be advantageous to the FAEB. Factors to be taken into account would include the possibility that the complexities of foreign procurement can be avoided in the case of the FAEB.

If procurement continues to be conducted by WAPDA, negotiate satisfactory commercial arrangements with WAPDA for the continuation of the service now provided or as modified to suit the FAEB, with sufficient flexibility to enable the FAEB to change on giving reasonable notice.

If the new company assumes total control of the procurement process, design and install a procurement system which will ensure that the FAEB acquires the optimal mix of price and quality for materials and supplies needed for its operations, maintenance and capital development program.

### **Consulting Skills Required**

- **Procurement Specialists.** These individuals should have a minimum of five years experience in designing, analyzing and implementing procurement policies and procedures, especially in developing countries. This should include experience in evaluating bids, negotiating with sellers and monitoring compliance with procurement procedures. Previous experience in the power sector should be preferred.

#### *b. Project Control and Construction Standards*

- Task 14* Identify and establish technical operational procedures and standards for construction and operations.
- Task 14.1* Review current standards that exist within the FAEB and those currently utilized by WAPDA that relate to construction (grounding, depth for burying poles, pole clearances above streets, pole/conductor/wire size and other issues).
- Task 14.2* Review current project control procedures such as those that relate to scheduling, cost and quality control for both new and major modification projects as well as criteria for selection of firms.
- Task 14.3* Identify areas for improvement and recommend procedures and standards to correct deficiencies.
- Task 14.4* Assist the new company in the implementation of these procedures and standards.

### **Consulting Skills Required**

- **Electrical Engineers.** These individuals should have a minimum of 10 years of work experience in an electric utility, preferably in the U.S. or U.K., and a working knowledge of construction standards and project control techniques and their implementation.

#### **6. System Coordination Procedures**

- Task 15* Upgrade, design and assist in the installation of metering and protection facilities necessary for interface between the new company and the transmission company.
- Task 15.1* Review existing metering and protection facilities currently in place. This should include system coordination procedures to ensure compatible operations.
- Task 15.2* Develop recommendations for new metering facilities, installation of new relays (if needed) and other facilities and assist the FAEB in costing equipment options. Under the new arrangements, metering should be done at the 11 Kv bus-bar.
- Task 15.3* Assist in the design and installation of recommended facilities which have been approved by the FAEB.

### **Consulting Skills Required**

- **Engineers.** These individuals should have previous experience (5-10 years) in the area of power distribution, preferably with a U.K. or U.S.-based electric utility. Previous experience conducting similar work in developing countries as part of privatization or restructuring activities should be optional.

#### **7. Training**

- Task 16* Develop a comprehensive training plan for the new company.
- Task 16.1* Conduct an assessment of training needs (by function or department) of the new company. This assessment should consider existing and required skill levels as well as past, current and proposed training activities.

**Task 16.2** Based on the assessment, develop a plan for developing and implementing a training plan within the FAEB. This plan should include recommendations on appropriate types of training (overseas, on-the-job, internships) and budgets as well as a strategy for designing and implementing in-house training capabilities including the structuring of an appropriate department, the identification of appropriate staff, the establishment of evaluation and monitoring mechanisms and additional external technical assistance as needed.

**Task 16.3** For in-house courses, assist the FAEB in designing initial course structures, preparing materials, selecting trainers and evaluating programs and participants.

### **Consulting Skills Required**

- **Training Specialists.** These individuals should have a minimum of five years of experience in designing and implementing technical and financial training programs in the energy sector. Previous experience in developing countries should be required as well as a graduate degree in education, management or a related discipline.

### **C. Privatization**

#### **1. Privatization Strategy**

**Task 17** Identify strategies for the privatization of the FAEB. This should include an analysis of the options for the privatization of the new company such as the sale of the company through a public offering, sale of the company to a management group through a private placement or a combination of the two and the use of ESOPs.

### **Consulting Skills Required**

- **Privatization Specialists.** These individuals should have an advanced degree in finance, economics or a related discipline and previous experience (5-10 years) in identifying and analyzing privatization strategies especially as they relate to the power sector in developing countries.

#### **2. Implementation Plan**

**Task 18** Develop an appropriate implementation plan based on the selected strategy. Depending on the selected strategy, this task would include such

activities as the identification of a financial adviser, preparation of offering memoranda and other documents, registration of the company on the stock exchange, identification and removal of any legal obstacles and similar activities. This task would also involve the monitoring of the performance of the FAEB to determine the appropriate timing for the implementation of the privatization transaction.

### **3. Transaction**

*Task 19* Implement Transaction once GOP approval has been obtained for the implementation plan. This task would involve the identification of investors, implementation and supervision of a bidding process, sale of shares, drafting and negotiation of agreements or other appropriate activities related to the selected strategy and transfer of ownership.

#### **Consulting Skills Required**

- **Investment Bankers.** These individuals should have an advanced degree in finance, economics or a related discipline and significant experience (5-10 years) in privatizing utilities companies and restructuring power sectors in developing countries.
- **Attorneys.** These individuals should have significant (5-10 years) previous experience in conducting transactions relative to the privatization of the power or utility sector in general. This should include experience in preparing information memoranda, prospectuses and other legal documentation such as those relative to the sale and transfer of assets, licenses, shareholders' agreements as well as experience in negotiating with potential buyers. Previous experience in developing countries should be required.
- **Financial Analysts.** These analysts should bring previous experience (5-10 years) in such areas as performing due diligence and financial reviews and valuations for privatization purposes in the power or utility sectors in general. Previous experience in developing countries should be required.

**FAISALABAD AREA ELECTRICITY BOARD  
IMPLEMENTATION PLAN**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>CORPORATIZATION</b>																								
Task 1 - Legal Status																								
Task 2 - Financial Accounting and Tariffs																								
Task 3 - Ratemaking																								
<b>COMMERCIALIZATION</b>																								
Task 4 - Organizational Structure																								
Task 5 - Admin/Op Review																								
Task 6 - Systems																								
Task 7 - Internal Audit																								
Task 8 - Repair and Maintenance																								
Task 9 - Safety																								
Task 10 - Marketing																								
Task 11 - Load Forecasting																								
Task 12 - Staffing Plan																								
Task 13 - Procurement																								
Task 14 - Project Control																								
Task 15 - System Coordination																								
Task 16 - Training																								
<b>PRIVATIZATION</b>																								
Task 17 - Strategy																								
Task 18 - Implementation Plan																								
Task 19 - Transaction																								

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**Exhibit VII**

**Faisalabad Area Electricity Board (FAEB) Privatization  
Level of Effort Chart**

<b>TASKS</b>	<b>No. of Specialists</b>	<b>Total LOE (person months)</b>
<b>Corporatization</b>		
1. Legal Status	2	10
2. Financial, Accounting and Tariffs	4	32
3. Ratemaking	2	6
<b>Commercialization</b>		
4. Organizational Structure	2	10
5. Admin/Op Review	2	10
6. Systems	6	30
7. Internal Audit	3	5
8. Repair and Maintenance	3	5
9. Safety	4	4
10. Marketing	3	8
11. Load Forecasting	2	14
12. Staffing Plan	4	14
13. Procurement	2	4
14. Project Control	2	4
15. System Coordination	2	5
16. Training	3	6
<b>Privatization</b>		
17. Strategy	2	4
18. Implementation Plan	3	7
19. Transaction	7	28
<b>Total</b>		<b>206</b>

**Notes**

1. The LOE related to Task 6 includes implementation.
2. Estimated LOE for tasks does not include waiting periods for GOP approvals, passage of legislation, etc.
3. The estimated LOE relative to Task 19 will depend on the strategy identified in Task 17.

## **APPENDIX I      Legal Issues in the Corporatization of the Faisalabad Area Electricity Board**

Essential to corporatization and privatization will be ensuring that all relevant statutes are brought into conformity with the goals and requirements of privatization. Myriad pieces of legislation, including the Finance Act, Stamp Act and Income Tax, may need to be amended to ensure that the privatized FAEB is in fact able to act as a fully independent entity.

To ensure that this is the case, WAPDA has commissioned a review by an outside legal expert in Pakistani law to examine the ramifications and implications of existing law on the privatization of power and state-owned assets in Pakistan. Expected in July 1992, the study will recommend specific changes and amendments in the law to facilitate the privatization of WAPDA operations. The study will also address the issue of which legal protections and rights currently extended WAPDA will automatically apply to the privatized or corporatized entities, and which will require specific legislation in order to do so.

### **A.      Statutory Authority of WAPDA and the Faisalabad Area Electricity Board**

WAPDA and, by extension, the Faisalabad Area Electricity Board (FAEB) are governed by a number of statutes and ordinances which will directly affect the envisaged corporatization and privatization process. Foremost among these are the:

- **Pakistan Water and Power Development Authority Act, 1958**, creating WAPDA and vesting in it responsibility for developing the country's water and power resources;
- **Electricity Act, 1910 and Electricity Rules**, governing the granting of licenses and the provision of electrical power;
- **Land Acquisition Act, 1894**, establishing utilities' Right of Entry and Eminent Domain;
- **Industrial Relations Ordinance, 1969**, regulating collective bargaining and union activities;
- **Essential Services (Maintenance) Act, 1952**, governing and regulating industrial action in "essential" industries;

- **Service Tribunals Act, 1973**, detailing civil service rules and procedures for members of Pakistan's Civil Service; and
- **Pension and Provident Funds legislation**, governing who is covered by the pension schemes and how these funds are to be invested and managed.

In addition, Chapter IV, Section 19 of the WAPDA Act grants immunity to WAPDA and its employees in the exercise of their duties and functions, under the provisions of Sec. 21 of the Pakistan Penal Code (Law No. XLV of 1860). The effect of these immunities is to hold safe all employees of WAPDA/FAEB, with the language of the Act being particularly expansive, providing that "no suit, prosecution or other legal proceedings shall lie against the Authority, its Chairman, Members or officers or servants of the Authority in respect of anything done or intended to be done, in good faith..."

These immunities will be removed, and the FAEB will be liable to sue and be sued, as would any commercial entity, once privatization is completed and the FAEB is incorporated under the Companies Act. In drafting enabling legislation, protection for new directors and officers of FAEB against suits with respect to decisions and events occurring under the former entity should be considered. It is unlikely the investors will be willing to invest in the FAEB if they face the prospect of legal liability for actions that occurred prior to their involvement.

#### **B. Powers Delegated to the FAEB and Powers Reserved to WAPDA**

Day-to-day responsibility for the supply and distribution of power in the Faisalabad region rests with the **Faisalabad Area Electricity Board, or FAEB**, created by WAPDA in 1981 pursuant to Section 8(ii)(2) of the WAPDA Act<sup>22</sup>.

The specific delineation of authority and responsibility between WAPDA and the FAEB is specified in the Administrative and Financial Powers (Delegation) Orders, promulgated by WAPDA House under the provisions of the WAPDA Act. These "delegations" specify which actions the FAEB may take without recourse to WAPDA House, and which actions require approval or prior consultation with the Authority. They similarly specify, in detail, which powers are the province of the FAEB and which are reserved to WAPDA itself.

As in the case of all Authorities, WAPDA is subordinate to the Federal Government and, in this case, the Ministry of Water and Power. Officers and employees serving at

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<sup>22</sup>Section 8(ii)(2) provides that WAPDA, on behalf of the Ministry of Water and Power, may "frame a scheme or schemes for any province or part thereof for the purpose of...the generation, transmission or distribution of power".

the pleasure of the Federal Government and their actions are subject to its approbation. The Federal Government reserves to itself the unconditional right to alter, change or annul any action or decision taken by WAPDA or any individual in its employ. The budgets and expenditures of WAPDA and the FAEB are further subject to the scrutiny of the Ministry of Finance and Economic Affairs and approval by Parliament. Removing these legal covenants, and the requirement for Government concurrence and approval of FAEB decisions and policies, is central to corporatization and the corporatization process cannot succeed if this does not occur.

The FAEB, as an entity created by WAPDA, is governed by the Electricity Act, 1910, and has been granted a License to operate pursuant to this Act. As provided for in Section 3(e) of the Act, the License granted the FAEB is not exclusive and nothing in the law prevents another entity from obtaining a license to offer competing services in the FAEB's service area<sup>23</sup>. Thus, the FAEB's monopoly is by default and nothing in the law precludes another utility from seeking a license to offer competing services.

Under the provisions of the Electricity Act the license granted WAPDA/FAEB may (1) be revoked for cause at any time by the Punjabi Government; and (2) be rescinded on the same terms as a revocation upon its expiry, in which case the licensee must sell the undertaking to the Provincial Government or, at the Provincial Government's discretion, to a third party. Goodwill and loss of profits are not recognized in such a sale<sup>24</sup>.

As WAPDA/Faisalabad is presently wholly owned by the government, the Government of the Punjab is unlikely to exercise this option. This may not necessarily be the case once the FAEB is privatized/corporatized and the possibility, however remote, that the Punjabi Government may decide to revoke its License upon its expiry will be a major issue with investors. At a minimum, investors will insist that the Government grant a new, full license to the successor entity and not simply transfer to it the unexpired term of the present license. Similarly, privatization of the Area Board can only proceed if lenders and investors are assured that they will receive full compensation, at least equal to the liquidation value of the FAEB facilities, in the event that the Licensing Agency rescinds the License it has issued the FAEB.

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<sup>23</sup>Section 3(e) of the Electricity Act, 1910, stipulates that "the granting of a license...shall not hinder or restrict the grant of a license to another person within the same area of supply."

<sup>24</sup>The Electricity Act states that the license may be revoked by the provincial or local government issuing it, which in the case of WAPDA is the Government of the Punjab.

### **C. Employee and Industrial Relations**

Chapter IV, Section 17 of the WAPDA Act empowers WAPDA, and by extension the FAEB, to recruit and employ those officers and staff, as well as experts and consultants, that it considers necessary for the performance of its functions, employment being on the terms and conditions it deems fit.

This provision, however, is qualified by West Pakistan WAPDA (Amendment) Ordinance, 1975, which extends civil service status to every employee of the Authority, save for those few on secondment or deputation from a Province<sup>25</sup>. The effect of this provision is to bring all employment with WAPDA, including position classification, compensation, promotion and conditions of service, within the Pakistani civil service system, and to specifically extend to WAPDA employees the provisions of the Service Tribunals Act of 1973, which governs employment, discipline and termination of tenure.

It is presently unclear whether civil service protection continues subsequent to the divestiture of a state-owned enterprise, and whether the security of tenure accorded by civil service status remains in effect for employees of newly corporatized entities. Clarification of this matter is essential given the need to rationalize manpower staffing and reorganize the FAEB's operations.

Similarly, the power sector in Pakistan is highly unionized with all employees below grade 17 (officer) being organized. While WAPDA employees, as employees of a statutory body, are not regulated via collective bargaining, the employees of the corporatized FAEB will be subject to the Industrial Relations Ordinance (1969), and eligible for collective bargaining<sup>26</sup>. Consequently, particular care must be taken to fully consult and involve the relevant unions in the corporatization and privatization process given the imminence of staff reductions following corporatization and the need to minimize labor disruptions.

### **D. Continuation of the FAEB's Right of Entry and to Acquire Land Following Privatization**

The Land Acquisition Act, 1894 (Act I of 1894), as applied to WAPDA, grants the Authority the right to enter and survey any land, erect pillars, establish powers lines and

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<sup>25</sup>In the case of these employees, employment is governed by the rules and regulations applying to their respective Provincial Civil Service.

<sup>26</sup>As WAPDA employees are the employees of a statutory body, the terms of their employment are regulated according to the Government laws and not through collective bargaining. There is no "Memorandum of Settlement" between WAPDA management and its employees.

undertake any and all other works necessary for the provision and extension of power within its service area. This right of entry and egress extends equally to public and private lands, and provides that if the property belongs to a private party, due compensation will be paid for its acquisition or use. The Act further provides that if a dispute arises as to the amount of compensation due with respect to the foregoing, the rendering of the Deputy Commissioner for the district concerned is final.

While the rights and prerogatives contained in the Land Acquisition Act apply to WAPDA and, by extension, the Area Electricity Boards, this is by virtue of a License having been granted WAPDA pursuant to the Electricity Act, 1910. Whether or not these rights will automatically transfer to the corporatized FAEB is presently unclear. At the privatization stage, investors will certainly expect that any ambiguity in this regard be eliminated before agreeing to participate in the FAEB. Moreover, as a general rule, investors and lenders customarily insist that such ambiguities be clarified by statute and not informally.

#### **E. Liability for Debts incurred by WAPDA on behalf of the FAEB**

Presently, all capital investment is the responsibility of WAPDA, with the Area Electricity Board's expenditures being contained within the unified WAPDA budget. As part of WAPDA, the FAEB has not incurred its own, separate or sovereign debt and thus will not so encumbered upon privatization.

Presently, WAPDA covers the pension fund expenses for its employees, including those employed at Area Electricity Boards. Upon privatization or corporatization, however, these liabilities could transfer to the FAEB. With over 14,000 employees, this represents a very substantial amount. The size and structure of the unfunded pension fund liability of the Board is likely to be of consequence in any privatization transaction.

#### **F. Compliance with Environmental Legislation**

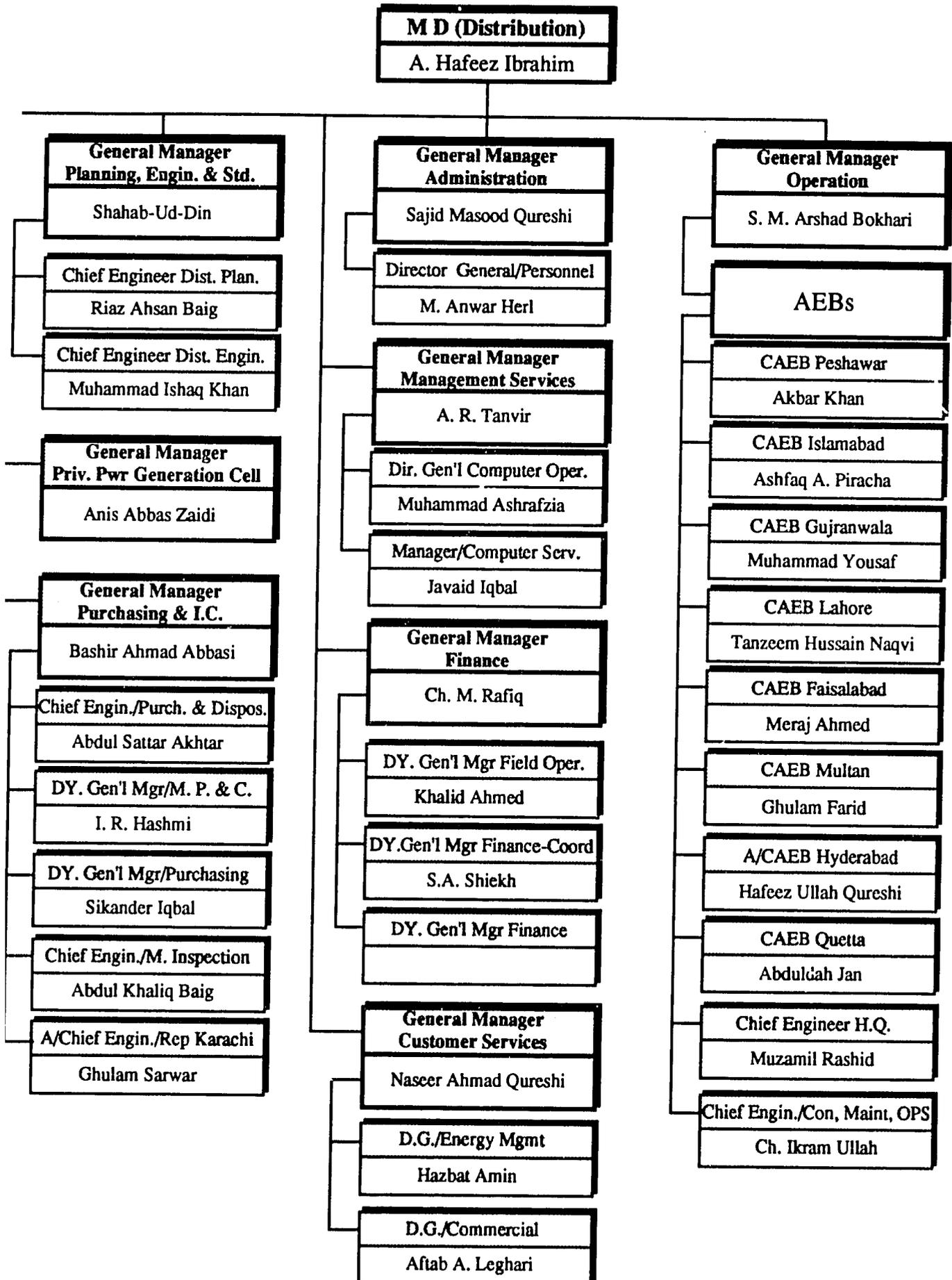
Chapter III, Sec. 8(2)(vi) of the WAPDA Act delegates to WAPDA authority to prevent "any ill-effects on public health resulting from the operations of the authority." Other statutes and ordinances also require WAPDA to transact its operations in such a fashion as to protect and conserve the environment, with the WAPDA Act and the Service Tribunals Act, among others, requiring that the safety and health of employees and the general public be respected and protected at all times.

Notwithstanding these statutory obligations, in practice environmental considerations and the environmental impact of WAPDA operations have been accorded very low priority. Neither WAPDA nor any of its Area Boards contain environmental units, and projects and investments have been undertaken with only the most cursory attention to their

environmental effects. In part this is due to the relatively low priority accorded environmental concerns until recently, and it may also be due to the rather blanket legal immunities extended the Authority under the terms of the WAPDA Act. In corporatizing the FAEB, consideration will need to be given to holding safe the privatized Board from legal actions arising from or attributable to decisions and actions taken before its creation. Successful divestiture of the entity will require that the successor entity not be encumbered by the decisions and actions of WAPDA.

# Water and Power Development Authority Distribution Wing Organizational Chart

Appendix II



**APPENDIX III**

**List of Interviews**

**POWER PRIVATIZATION COMMISSION**

Mr. Rahim Mashud  
Chairman, Privatization Commission (Power Sector)

**WAPDA**

Mr. Mohammed Rafique  
General Manager, (Finance) Power

Mr. Arshad Bokhari  
Managing Director (Distribution)  
General Manager, (Operations)

Mr. Abdul Rashid Kakar  
Managing Director, (Transmissions and Gridstations)

Mr. Naseer Qureshi  
General Manager, Customer Relations

Mr. Malik Ashraf  
Managing Director  
WAPDA Power Privatization Organization

Mr. A.R. Tanveer  
General Manager  
Management Services  
WAPDA

Mr. Abasi  
General Manager  
Inventory Control  
WAPDA

**FAISALABAD AREA ELECTRICITY BOARD**

**Mr. Mehar Mohammed Zaman**  
Superintending Engineer  
Second Circle, Faisalabad

**Mr. Mohammed Mahzuddin Khan**  
Director, Administration and Technical  
Faisalabad Area Electricity Board

**Mr. Aslam Kundi**  
Deputy Director  
Maintenance and Operations  
Faisalabad AEB

**Mr. M. Shafiq Mann**  
Executive Engineer  
Abdullafar Division  
Faisalabad AEB

**Mr. Sharif Gha**  
Meter Reading Superintendent  
Abdullafar Division  
Faisalabad AEB

**Mr. Manzoor Hassan**  
WAPDA Revenue Officer  
Faisalabad AEB

**Mr. Aleem Syed**  
Regional Director  
Inventory Control

**Mr. Mohammed Ibrahim**  
Stores Manager  
Faisalabad AEB