



Facility Administration Memorandum

Project Number: 38456 25 November 2010

Islamic Republic of Pakistan: Power Distribution Enhancement Investment Program (Multitranche Financing Facility)

Loan 2438-PAK: Tranche-1, Investment Project

Loan 2439-PAK(SF): Support Project

Loan 2727-PAK: Tranche-2, Investment Project

<u>Important Note</u>: This Facility Administration Memorandum is an active document. It will be updated and revised progressively as and when necessary during each review mission and following any changes in project investment costs, scope, or implementation arrangements. The contents herein are intended to assist and facilitate project management and implementation. If there is any conflict with any other legal agreement(s) related to this Investment program, the provision(s) in the legal agreement(s) will prevail.

CONTENTS

			Page
Main Te	xt		2
I.		Introduction	2
I	l.	Purpose	
-	II.	Overview	
•	V.	Key Persons Involved in the Project	
\	V .	Loan Processing History	3
	•	ect Definition	
-	1.1	Sponsors, Stakeholders and External Agencies	
-	1.2 1.3	Impact and Outcomes Outputs	
ı	1.3	Outputs	0
	•	ect Management	
_	2.1	Project Organization Structure	
2	2.2	Roles and Responsibilities	10
		urement Plan	
_	3.1	Process Thresholds and Reviews	
_	3.2	Procurement Plan	
	3.3	National Competitive Bidding (NCB)	
	,	guards Plan	
	4.1	Environment	
	4.2	Involuntary Resettlement	
	4.3	Indigenous People	
4	4.4	Other Safeguards	34
Annex 5	i: Finar	ncing Plan	
_	5.1	ADB Financing, Fund Flow and Disbursement Arrangements	
_	5.2	Allocation Table	
5	5.3	Government Financing and Fund Flow	29
		stment (Cost) Plan	
-	5.1	Detailed Cost Estimate	
6	5.2	Forecast of Cost to Complete	46
Annex 7	: Exec	eution Plan	48
		Work Breakdown Structure (WBS)	
7	7.2	Responsibility Allocation by Activity	
	7.3	Project Implementation Schedule (Gantt Chart)	
7	7.4	Annual Operational Plan	51
Annex 8	B: Perfo	ormance Monitoring and Evaluation	37
	3.1	Deliverables	37
8	3.2	Performance Indicators	55
8	3.3	Progress Report	55
Annex 9): Majo	r Covenants	57
-		Legal Covenants	
_	9.2	Financial Covenants	
S	9.3	Safeguards Covenants	57
Annex 1	0: App	pendixes	59

Main Text

I. Introduction

- 1. The Government of Pakistan (the Government) has entered into a Framework Financing Agreement (FFA) with the Asian Development Bank (ADB) for up to \$810 million to finance the Power Distribution Enhancement Investment Program in July 2008. ADB approved a multitranche financing facility (MFF) for \$810 million in September 2008 to finance this Investment Program. Subsequently ADB approved the Loan 2438-PAK to finance the Tranche-1 Investment Project (Tranche-1) for \$242 million from its ordinary capital resources (OCR) and the Loan 2439-PAK to finance the Support Project for \$10 million from its Special Fund (Asian Development Fund [ADF]) resources.
- 2. On 29 November 2008, the Government, Pakistan Electric Power Company (PEPCO), Faisalabad Electric Supply Company (FESCO), Gujranwala Electric Power Company (GEPCO), Hyderabad Electric Supply Company (HESCO), Islamabad Electric Supply Company (IESCO), Lahore Electric Supply Company (LESCO), Multan Electric Power Company (MEPCO), Peshawar Electric Supply Company (PESCO), Quetta Electric Supply Company (QESCO) signed Loan and Project Agreements with ADB for financing and implementing of activities under Tranche-1 and the Support Project. The Loans 2438-PAK and 2439-PAK have been declared effective on 13 January 2009. The Tranche-1 is expected to be completed by 31 December 2011 and the Support Project is expected to be completed by 30 June 2018.
- 3. The FFA provides a maximum utilization period of 10 years for the MFF, and provides for drawing down in tranches through periodic financing requests (PFRs) for no less than \$150 million each tranche.
- 4. The Tranche-2 subprojects have been identified by each individual DISCO and are substantively based on the Government Planning Commission applications previously made by the DISCOs. The subprojects under the proposed Investment Program for the eight DISCOs cover the whole country. Tranche-2 covering approximately 133 subprojects. Some of these subprojects are further subdivided into numerous smaller jobs at multi locations on the distribution systems. These subprojects are urgently needed for the system to meet system security reliability and safety requirements. The following criteria were used to identify the subprojects: (i) technical justification, (ii) financial and economic viability, and (iii) minimal residual environmental and social impacts. Some subprojects to address health and safety, operating cost reduction, and improved management information are also included.
- 5. Within the identified priorities and selection criteria, Tranche-2 projects will include (i) addition of circuit and transformer capacity to enable overloaded systems to deliver present demand reliably and meet the expected load growth, (ii) loss reduction, and (iii) refurbishment of distribution networks (iv) construction of new high voltage sub stations and transmission lines.

II.

Purpose of the FAM

- 6. Following the FFA between the Government and ADB, this multitranche financing facility administration memorandum (FAM) was developed to help the executing and implementing agencies and ADB monitor MFF implementation, including the individual tranches, and evaluate its performance.
- 1. Procurement, safeguards, and financing plans are summarized in the Annexes. References to the relevant ADB policies and procedures and FFA and tranche covenants are in Annex 10 Appendix A. The FAM is an active document, progressively updated and revised as necessary, particularly following any changes in project or program costs, scope, or implementation arrangements. This document may not reflect the latest project or program changes.

III. Overview

1. This Investment Program will (i) improve power distribution infrastructure through system rehabilitation, augmentation, and expansion; and relieve the power system from distribution bottlenecks and constraints; (ii) enable continued operation and maintenance in accordance with best international practices; and (iii) commercialize DISCO operations. Specifically, (i) DISCOs will adhere to regulatory requirements and comply with the security standards; (ii) about 12,000 gigawatt-hours (GWh) of additional energy will be supplied through the national grid annually; (iii) the system will be capable of meeting peak demand, with electricity outages significantly reduced; and (iv) 30 million additional people will have access to electricity from the national grid.

IV. Kev Persons Involved in the Project

MFF	Tranche 1 & 2
AI	DB
Juan Miranda, Director General, Central and West Asia Department	Adnan Tareen, Project Implementation Officer (Energy), Mission Leader, PRM
Pil-Bae Song, Director, Energy Division, Central and West Asia Department (CWEN)	Liaqat Ali, Associate Project Analyst, PRM
Rune Stroem, Country Director, Pakistan Resident Mission (PRM)	Ejaz Hayat Malik, Staff Consultant, PRM
Nariman Mannapbekov, Head, Project Administration Unit, CWEN	
Executing a	nd Implementing Agencies

Zafar Hasan Reza, Joint Secretary (ADB/Japan),
Economic Affairs Division

Rasul Khan Mahsud, Managin Director, PEPCO
Khalid Hussan Rai, Cheif Engineer (Dev), PEPCO
Tariq Mahmood Chattha, Chief Executive Officer,

Saleem Akhtar, Chief Executive Officer, Lahore
Electric Supply Company (LESCO)

Khalid Mehmood, Chief Engineer (Development),
LESCO

MFF	Tranche 1 & 2
Faisalabad Electric Supply Company (FESCO)	Chaudhry Guftar Ahmed, Chief Executive Officer, Multan Electric Power Company (MEPCO)
Chaudhri Mohammad Ali, Chief Engineer (Development) FESCO	Mohammad Shakeel, Chief Engineer
Mohammad Ibrahim Majoka, Chief Executive	(Development), MEPCO
Officer, Gujranwala Electric Power Company (GEPCO)	Muhammad Wali, Chief Executive Officer, Peshawar Electric Supply Company (PESCO)
S. Zulfat Shah, Chief Engineer (Development), GEPCO	Abdul Latif Khan, Chief Engineer (Development), PESCO
Muzaffar Hussain Abbasi, Chief Executive Officer, Hyderabad Electric Supply Company (HESCO)	Muhammad Shafiq, Chief Executive Officer, Quetta Electric Supply Company (QESCO)
Habibullah Shaikh, Chief Engineer (Development), HESCO	Nadir Ali Khoso, Chief Engineer (Development), QESCO
Javed Pervez, Chief Executive Officer, Islamabad Electric Supply Company (IESCO)	
Malik Yousaf Awan, Chief Engineer (Development), IESCO	

V. Loan Processing History

a. b. c. d. e. f. g. h. i. j. k.	Approval of project preparatory technical assistance Fact-finding Management review Appraisal mission Staff review committee Loan negotiations Board circulation Board consideration and approval Loan agreement signing (Tranche-1 and Support Project) Loans effectiveness, including conditions Inception Mission	27-Nov-2006 5 to 21-Jun-2007 1-Aug-2007 28-Jan to 8-Feb-2007 14-Mar-2008 7 to 9-Jul-2008 13-Aug-2008 12-Sep-2008 29-Nov-2008 13-Jan-2009 29 Jan-12 Feb 2009
	Loan Processing History for Tranche 2	
	D : 15' : D :	0.84 0040

Period Financing Request Loan Negotiations Approval of Minutes of Negotiations 3 March 2010 a. 3 December 2010 b. 7 December 2010 C. Loan Approval 14 December 2010 d. Loan agreement signing
Loan effectiveness, including conditions 28 January 2011 e. 30 March 2011 f. Inception Mission 1-17 February 2011 g.

Annex 1: Project Definition

1.1 Sponsors, Stakeholders and External Agencies

(i) Sponsors:

- a. Government of Pakistan Economic Affairs Division, Ministry of Finance (the Borrower)
- b. Asian Development Bank

(ii) Stakeholders:

- a. Pakistan Electric Power Company (PEPCO)
- b. Faisalabad Electric Supply Company (FESCO)
- c. Gujranwala Electric Power Company (GEPCO)
- d. Hyderabad Electric Supply Company (HESCO)
- e. Islamabad Electric Supply Company (IESCO)
- f. Lahore Electric Supply Company (LESCO)
- g. Multan Electric Power Company (MEPCO)
- h. Peshawar Electric Supply Company (PESCO)
- i. Quetta Electric Supply Company (QESCO)
- j. Project land acquisition collectors (LAC)
- k. Affected People (AP) identified under Land Acquisition and Resettlement Plan

(iii) External Agencies

- a. Provincial Board of Revenue (for approval of compensation rates for land)
- b. Provincial Environment Protection Agencies (EPAs)
- c. District Revenue Office (for compensation rates and affected assets survey)
- d. District Government Office/Tehsil (for establishment of LAR and grievance and redress committees)
- e. Subdistrict Nazim/Union Council (for establishment of LAR and grievance and redress committees)

1.2 Impact and Outcomes

1. Impact:

2. The Investment Program will contribute to economic growth and social development through enhancing efficiency of the overall power distribution system and provision of an adequate and reliable power supply to a greater number of industrial, commercial and residential customers in the territory of the Borrower. The expected impact of the Investment Program is increased reliability and quality of power supply and expended service coverage in the Project Area.

2. Outcomes:

- The expected outcome of the Investment Program is rehabilitated, augmented and expanded power distribution systems through improvements of the secondary transmission grid (STG), distribution of power (DOP), and capacitors, energy loss reduction (ELR), and miscellaneous investments to the distribution system.
- Benefits to be delivered from the subprojects in Tranche-2 include addition of about 3,380 megavolt-amperes (MVA) of transformer capacity, improved security of supply to customers by moving toward compliance with regulatory security standards governing planning and operation of the distribution system, and reliability improvements on the lower voltages.

1.3 **Outputs**

Specific Activities for Tranche-1 and Support Project

Tranche-1 Remarks 1. PEPCO Processing support: A. Tranche processing B. Relending agreements C. Loan negotiations/approvals Coordination A. PC-I consolidation B. Interaction with federal ministries and provincial departments C. Progress reporting and conduct semi-annual review and meetings III. Monitoring support A. Safeguards monitoring IV. Project management support A. PPMS B. Performance monitoring and evaluation 2. FESCO Secondary Transmission Grid (STG): See Annex 8.1 A. 06 Extensions for subprojects B. 06 Augmentation detail. C. 01 Additional transformer bay II. Capacitors: install 132kV & 11 kV III. Modernization: A. construction equipment B. automated meter reading C. computerized accounting system IV. Rehabilitation: replace time expired/technically inadequate substation equipment 3. GEPCO Secondary Transmission Grid (STG): See Annex 8.1 A. Fatehpur conversion 66kVto 132 kv (see note below) for subprojects Energy Loss Reduction (ELR): detail. A. 17 11kv feeders and B. 184 LT works III. Distribution of Power (DOP): A. 4 11kv feeders and

B. 325 LT works (meaning augmentation/addition of new

transformers).

4. HESCO Secondary Transmission Grid (STG): See Annex 8.1 A. 07 augmentation for subprojects B. 03 extension detail. II. Energy Loss Reduction (ELR): re-conductoring, reconfiguring networks III. Capacitors: install 132 kV & 11 kV IV. Rehabilitation: replace time expired/technically inadequate substation equipment. 2. IESCO Secondary Transmission Grid (STG): See Annex 8.1 for A. 20 augmentations subprojects detail. B. 5 extensions II. Modernization of Equipment 4. LESCO Secondary Transmission Grid (STG): See Annex 8.1 for A. 01 Substation subproject details. B. 05 Extensions C. 23 Augmentations Capacitors: A. \$4m component - grid capacitors. III. Distribution system modernization: A. \$4.6m multiple components. 7. MEPCO Secondary Transmission Grid (STG): See Annex 8.1 Ι. for A. 01 new site subprojects detail. B. 02 additional line bay C. 01 two additional line bay D. 01 additional transformer & line bay E. 02 extension F. 02 kV to 132 kV conversion G. 04 augmentation H. 01 transformer bay extension II. Energy Loss Reduction (ELR): re-conductoring, reconfiguring networks III. Capacitors: install 132 kV & 11 kV 8. PESCO Secondary Transmission Grid (STG): See Annex 8.1 for A. 10 extension subprojects details. B. 05 augmentation C. 01 transmission line & line bay II. Distribution of Power (DOP): install 11 kV/LV extensions, distribution substations III. Capacitors: install 132 kV & 11kV IV. Modernization: install reclosers & sectionalisers to improve system performance V. Rehabilitation: replace time expired/technically inadequate substation equipment 9. QESCO Secondary Transmission Grid (STG): See Annex 8.1 A. 01 augmentation & extension subprojects details. B. 05 extension C. 01 augmentation D. 02 conversion II. Energy Loss Reduction (ELR): reconditioning, reconfiguring networks III. Distribution of Power (DOP): 11kV/LV extensions, distribution substations

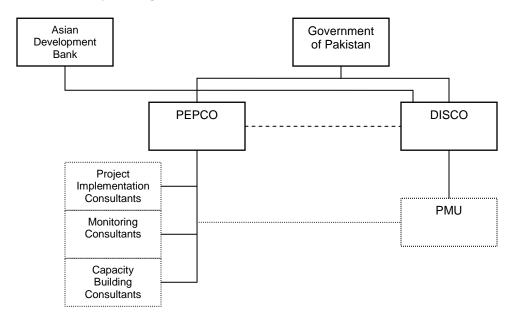
Specific Activities for Tranche-2

- 1. DISCOs (i) Secondary Transmission Grid (STG) Expansion
 - a. addition of new 132 kV substation and associated transmission lines.
 - additional of transmission line to enhance load serving capability of existing 132 kV and 66 kV substations and to provide contingency cover, and
 - c. stringing or re-conducting of existing transmission lines to increase load carrying capability.
 - (ii) STG Conversion of existing 66 kV substations to 132 kV substations with enhanced transformation and current carrying capacity;
 - (iii) STG Augmentation and Extension replacement of transformers in the 132 kV and 66 kV substations with higher capacity transformers and addition of additional transformers in existing 132 kV and 66 kV substations; and
 - (iv) Energy Loss Reduction -
 - a. addition of 11 kV and power capacitors for energy loss reduction and maintenance of voltage profile within accepted limits.
 - b. addition of twisted conductor or Arie! conductor to reduce non technical losses, and
 - replacement of 132 kV, 66 kV and 11 kV circuit breakers, isolators and other equipment and materials in the substations.

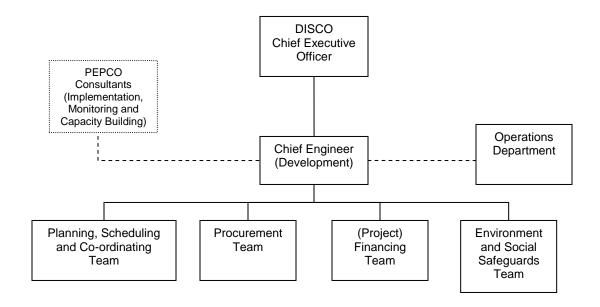
Annex 2: Project Management

2.1 Project Organization Structure

1. Project Organization Structure

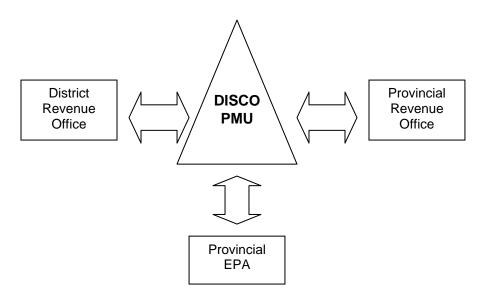


2. DISCO Project Management Unit - Organization Chart



3. Facility [Safeguards] – Organization Chart

The chart below broadly captures the primary external agencies with whom the DISCO PMU will interact for actions under Environmental Assessment and Review Plan (EARP), Land Acquisition Resettlement Plan (LARP) and Indigenous People Development Framework (IPAF).



2.2 Roles and Responsibilities

5. Strategic and Management Level

- (i) Sponsors will provide strategic direction, commit resources and financing as agreed, and review progress. Furthermore, will ensure that the program complies with the relevant statutory requirements, Government and ADB's policies and procedures, including ADB's anticorruption policy, as appropriate; and
- (ii) Performance Evaluation and Monitoring (this will be under PEPCO) will monitor the progress of the performance and the program deliverables, and report to the sponsors.

6. **Operational Level**

- (i) Chief Engineer (Development)
 - i. To manage the PMU team and ensure they are staffed appropriately;
 - ii. Supervise and manage the day-to-day implementation of the subprojects (planning, procurement, safeguards, finance and operations related);
 - iii. Liaise with PEPCO through the CEO as necessary;
 - iv. Report on all procurement related matters and seek approval from CEO. In addition, the Board of Directors if required.

- v. Report on all safeguards related matters and obtain approval from CEO.
- vi. Report on finance and disbursement related matters, will co-sign all withdrawal applications and payments. In the absence, the duly appointed alternate will co-sign.
- vii. In the temporary absence of Chief Engineer an alternate or an Officer-incharge will be nominated by the CEO.
- (ii) Environmental and Safeguards Team To take care of all responsibilities and tasks related to environment, land, and social (including involuntary resettlement and indigenous people). It will comprise of one deputy manager and two assistant managers.
- (iii) Planning, Scheduling and Co-ordinating Team The team will be responsible for (i) identifying and proposing the subprojects to PEPCO and subsequent approval for financing, (ii) scheduling and monitoring the approved subproject activities, (iii) preparing the necessary documentation in line with the statutory, corporate and ADB policies; (iv) provide oversight on occupational health, safety and environment safeguards in the working environment, and (iv) implementation scheduling.
- (iv) Procurement Team To take care of all responsibilities and tasks related to procurement (goods and works) and consultant recruitment.
- (v) Project Financing Team Responsible for taking care of counterpart financing, funds flow arrangements, payments, recording and monitoring of both ADB and DISCO funds. Also, will establish, monitor and manage the imprest account and Statement of Expenditure (SOE) procedures. Furthermore, ensure timely preparation of the annual audited project accounts and submission to ADB within 6 months of financial year end.
- (vi) Project Implementation Consultant To support DISCOs in the implementation of the Facility, a project implementation consultant (PIC) will be recruited by PEPCO. The PIC would be responsible for supporting DISCOs in the (i) general power distribution business management including project implementation and management; (ii) project finance and management, and financial reporting; (iii) contracting, procurement, and inventory management; (iv) project performance monitoring system design and application; and (v) relevant on-the-job training of DISCO personnel.
- (vii) Monitoring Consultant The monitoring consultant will ensure that the environmental and social safeguard measures are implemented in accordance with the approved plans.
- (viii) Capacity Building Consultant DISCO capacity will be developed by training programs in modern distribution system planning, utility management, and information communications and technology as needed. PEPCO will recruit international consultants that will design and deliver activities to strengthen DISCOs' (i) planning, (ii) design, (iii) project management, (iv) operations, and (iv) maintenance capabilities. Bilateral exchange programs will be developed with foreign power companies to develop role models among current and potential

managers. An institutional capacity building support project will be developed for each DISCO based on its individual needs.

7. Responsibilities of PEPCO:

- (i) Responsible for (a) carrying out the Support Project, and (b) monitoring and coordinating activities under the entire Investment Program with the DISCOs, and communicating with ADB.
- (ii) Ensure that the implementation consultants are recruited and mobilized to assist each DISCO in the implementation of subprojects.
- (iii) Keep ADB informed of any development in the Borrower's policies, programs and investment plans related to the power generation, transmission and power distribution that may materially affect the financial viability of PEPCO, the DISCO, and the Investment Program.
- (iv) Establish within two (2) months of the Effective Date, a clear and transparent mechanism for setting and collecting the management fee to ensure its financial viability.
- (v) Ensure that *ADB's Anticorruption Policy* is followed throughout the implementation of the Investment Program.
- (vi) Shall participate in semi-annual meetings between the Borrower, the DISCO, and ADB to review and discuss the implementation progress under the Investment Program.
- (vii) Shall establish within three (3) months of the Effective Date, a PPMS in a form and substance acceptable to ADB, in accordance with the Project Performance indicators and targets stipulated in the design and monitoring framework.
- (viii) Consolidate for submission to ADB quarterly progress reports prepared by the DISCO.
- (ix) Maintain its internal controls in accordance with the national accounting standards of the Borrower and set up within four (4) months of the Effective Date its independent internal audit department.

8. Responsibilities of PMU:

DISCO related specific responsibilities are discussed in detail in the Loan and Project Agreements. The roles and responsibilities described below are specifically related to the PMU, and therefore should be read in conjunction with the relevant agreements:

- (i) With in one (1) month of the Effective Date, a PMU adequately staffed and headed by a suitably qualified Director to the Satisfaction of ADB.
- (ii) Ensure that all land acquisition and resettlement activities under the Investment Program are duly carried out and completed.
- (iii) Ensure that the subprojects are carried out in accordance with the Borrower's environmental laws and regulations, the ADB; Environment Policy (2002), (for subprojects initiated after June 2009 ADB's Safeguard Police Statement shall apply), the Environmental Assessment and Review Framework (EARF), including updates thereto agreed with ADB, and respective Initial Environmental Examinations (IEEs), Summary Initial Environmental Examinations (SIEEs) and Environmental Management Plans (EMPs) included in IEEs; all mitigation and monitoring measures identified in the respective EMP are incorporated into detailed design of the Subproject and implemented during the construction and

- operation of the Project facilities, all contracts under the Subprojects contain provisions on compliance with these requirements, the implementation of the EMPs is monitored and evaluated internally and externally, and results of such monitoring and evaluation are reported to ADB.
- (iv) Ensure that all subprojects affecting indigenous people are constructed and operated in accordance with the requirements of the Borrower's applicable laws and regulations, ADB's Policy on Indigenous Peoples (1998) (in case of subprojects initiated after June 2009 ADB's Safeguard Policy Statement) as specified in the Indigenous People Development Framework (IPDF), and detailed in the respective IPDP's (or LARPs), the implementation of the IPDP's is monitored and evaluated internally and externally, and results of such external monitoring and evaluation are reported to ADB.
- (v) Ensure that within six months of the Effective Date, an environmental officer and a social officer are appointed in the DISCO's environmental and social cell to conduct an internal monitoring and evaluation of the implementation of the LARPs, IPDPs, and EMPs, results of such monitoring are included in quarterly progress reports to be submitted to ADB, within four months of the Effective Date an external agency or an NGO acceptable to ADB is engaged to conduct external monitoring and evaluation of the implementation of the LARPs, IPDPs, EMPs and their impacts, and external monitoring and evaluation reports are provided to ADB on a semiannual basis.
- (vi) Participate in semi-annual meetings with the Borrower, PEPCO, and ADB to review and discuss the Tranche-1 implementation progress.
- (vii) Establish within three (3) months of the Effective Date, the PPMS in a form and substance acceptable to ADB, in accordance with the performance indicators and targets stipulated in the design and monitoring framework of the Facility.
- (viii) Prepare and submit through PEPCO their quarterly progress reports.
- (ix) Maintain their internal controls in accordance with the national accounting standards of the Borrower and set up within (4) four months of the Effective Date its independent internal audit departments.

Annex 3: Procurement Plan

3.1 Process Thresholds and Reviews

(i) Thresholds

9. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works											
Method	Threshold										
International Competitive Bidding for Works	Above \$5,000,000										
International Competitive Bidding for Goods	Above \$1,000,000										
National Competitive Bidding for Works	Up to ICB thresholds										
National Competitive Bidding for Goods	Up to ICB thresholds										
Shopping for Works	Up to US\$ 100,000										
Shopping for Goods	Up to US\$ 100,000										

(ii) Reviews

10. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement of Goods and Works											
Procurement Method	Prior or Post	Comments									
ICB Works, Goods	Prior										
LIB Works, Goods	Prior										
NCB Works, Goods	Prior to first procurement, post thereafter	In the event that the standard bidding documents shall apply to all DISCOs then one prior review for all DISCOs for each procurement method shall									
Shopping for Works, Goods	Prior to first procurement, post thereafter	suffice. Otherwise, prior review shall apply on first procurement by each DISCO for each procurement method.									

DISCO = distribution company, ICB = international competitive bidding, LIB = limited international bidding, NCB = national competitive bidding.

Recruitment of Consulting Firms											
Quality and Cost Based Selection (QCBS)	Prior										
Quality Based Selection (QBS)	Prior										
Other selection methods: Consultants Qualifications (CQS), Least Cost Selection (LCS), Fixed Budget (FBS), and Single Source (SSS)	Prior										
Recruitment of Individual Consultants											
Individual Consultants	Prior										

3.2 Procurement Plan

11. Loan 2439-PAK (Support Project) for \$10 million is for supporting the implementation of the Investment Program and will cover consulting services for (i) subproject preparation, (ii) subproject implementation, (iii) subproject monitoring activities, and (iv) capacity building of DISCOs. Table A3.1 details the breakdown of Support Project consulting services and engineering services envisaged for Tranche-1.

Table A3.1: Proposed Contract Packages for the Support Project Consulting and Engineering Services

N	Proposed	nt Method	st Ratio	d type	ernational nent	dvertising			C	ontrac	et Amou	ınt (US	\$ millio	n)		
0.	Procurement Package	Procurement Method	Quality:Cost Ratio	Proposed type	National/ International Assignment	Expected Advertising Date	FESCO	GEPCO	HESCO	IESCO	LESCO	MEPCO	PESCO	QESCO	PEPCO	Total
1	Design Engineering Services (Tranche-1)	QCB S	80:20	FT P	Intl	Q3/08			1.0	0. 9	1.1					3.0
				ST P	Intl	Q3/09	0.6						0.7	0.5		1.8
				BD	Intl	Q3/10		0.2				0.4				0.6
2	Implementation Consulting Services (Support Project)	QCB S	80:20	FT P	Intl	Q4/09									4.0	4.0
3	Monitoring Consultant (Support Project)	QCB S	80:20	ST P	Intl	Q1/09									0.6	0.6
4	Capacity Building Consultant (Support Project)	QCB S	80:20	FT P	Intl	Arrangement to be agreed with the Asian Development Bank based on experience with capacity building consultant to be recruited under TA Loan 2178						1.2	1.2			

BD = biodata technical proposal, FESCO = Faisalabad Electric Supply Company, FTP = full technical proposal, GEPCO = Gujranwala Electric Power Company, HESCO = Hyderabad Electric Supply Company, IESCO = Islamabad Electric Supply Company, Intl = International, LESCO = Lahore Electric Supply Company, MEPCO = Multan Electric Power Company, PEPCO = Pakistan Electric Power Company, PESCO = Peshawar Electric Supply Company, QCBS = quality- and cost-based selection method, QESCO = Quetta Electric Supply Company, STP = simplified technical proposal.

- 12. Consultants will be employed by PEPCO and will provide varying services to the DISCOs depending on their needs and capabilities. The terms of reference for consultants will be developed and agreed with ADB prior to recruitment.
- 13. Because of the significant volume of work, DISCO engineering capacity will be expanded during project execution by recruitment of services from external engineering companies. To this end, the procurement plan proposes recruiting an engineering services contractor for each DISCO. It is considered that sufficient domestic engineering capacity exists in Pakistan to meet this requirement.

14. The Table-A3.2 details the contract packages agreed for Tranche-1 to be financed under Loan 2438-PAK. DISCOs will submitted updated procurement plans to ADB for approval at least once a year with a plan for the next 18 months. Table A3.3 shows the procurement plan for the additional equipment approved by ADB, through a major change in scope, in May 2010.

Table A3.2: Tranche-1 Contract Packages for Goods and Works (as agreed at the time of loan negotiations in July 2008)

No.	Proposed Procurement Packages	Procurement Method	Domestic Preference	Pre- qualification	Contract Type	Bidding Procedure	Expected Advertising Date	FESCO	GEPCO	HESCO	IESCO	LESCO	MEPCO	PESCO	OESCO	PEPCO	Total \$
	(\$ million)		Y/N	Y/N													
1	132 kV Power Transformers	ICB	Υ	N	G	SSOE	Q3/08	7.4		4.8	17.5	18.7	3.7	7.9	4.4		64
2	Circuit Breakers and Associated Equipment	ICB	Υ	N	G	SSOE	Q3/08	2.5		2.4	0.9	2.1	0.8	2.7	1.1		12
3	Control and Relay Panels and Ancillary Equipment	ICB	Υ	N	G	SSOE	Q3/08	2.8		1.9	5.6	6.3	1.4	2.9	1.0		22
4	Distribution System Modernization Equipment	ICB	Υ	Ν	G	SSOE	Q4/08	8.7	1.2	5.9	2.8	6.3	1.1	6.3	2.8		35
5	Tower Steel Works and Insulators	NCB	N	N	G	SSOE	Q4/08		0.6				0.3	0.5	0.5		2
6	Overhead Line Conductors	ICB	Υ	N	G	SSOE	Q4/08		3.7				5.6	2.8	6.2		18
7	L V Aerial Bundled Conductors	ICB	Υ	N	G	SSOE	Q4/08			20.2							20
8	Distribution Transformers	ICB	Υ	N	G	SSOE	Q4/08		1.5					6.5	3.3		11
9	Major Substation Build	ICB	Υ	N	Т	SSOE	Q3/08		2.7			2.9	5.4		3.4		14
10	Civil Works / Erection and Installation	NCB	N	N	w	SSOE	Q1/09	3.1	1.7	6.2	3.3	4.1	2.4	6.0	4.4		31
	Subtotal							24.5	11.3	41.3	30.2	40.4	20.6	35.6	27.1		231
	Number of procurement packages							5	6	6	5	6	8	8	9		53

FESCO = Faisalabad Electric Supply Company, G = goods, GEPCO = Gujranwala Electric Power Company, HESCO = Hyderabad Electric Supply Company, IESCO = Islamabad Electric Supply Company, LESCO = Lahore Electric Supply Company, MEPCO = Multan Electric Power Company, N = No, PEPCO = Pakistan Electric Power Company, PESCO = Peshawar Electric Supply Company, QESCO = Quetta Electric Supply Company, S = services, SSOE = single stage one envelope, T = turnkey, W = works, Y = Yes.

Note: Borrower may request approval from Asian Development Bank to apply domestic preference procedure to packages where goods are manufactured in Pakistan. The default procedure is for domestic preference not to apply.

Table A3.3: Tranche-1 Revised Contract Packages for Goods and Works

No.	Proposed Procurement Packages	Procurement Method ¹	Domestic Preference	Prequalification	Contract Type	Bidding Procedure	Expected Advertising Date	FESCO	GEPCO	неѕсо	IESCO	LESCO	MEPCO	PESCO	QESCO	Total
-			Y/N	Y/N								(\$ millio	n)			
1	Power & Distrib Transformers	ICB	Υ	N	G	SSOE	Q3/10			4.34	2.85			3.00		10.19
		RO						2.00		1.80	3.66	3.36		4.30	7.30	22.42
2	Circuit Breakers	ICB	Υ	N	G	SSOE	Q3/10		1.20			3.00				4.20
	and Capacitors	RO						0.50	0.00	0.90						1.40
3	Control and	NCB	N	N	G	SSOE	Q3/10									0.00
ľ	Relay Panels	RO							0.30	0.89					0.81	2.00
4	Grid Station Material															0.00
_	Cables &	NCB	N	N	G	SSOE	Q3/10					0.80				0.80
5	Conductors	RO								0.10					1.00	1.10
6	Structures & Poles									0110						0.00
7	Line Hardware															0.00
		ICB	Υ	N	G	SSOE	00/40				2.00	5.00		1.20		9.00
8	Modernization Equipment		Y	N	G	SSUE	Q3/10				2.00	5.80		1.20		
9	Major Substation	RO										0.00				0.00
10	Build Civil Works															0.00
-10	CIVII WOIKS															0.00
		Total						2.50	1.50	8.03	8.51	12.96	0.00	8.50	9.11	51.11
11	Totals	New						0.00	1.20	4.34	4.85	9.60	0.00	4.20	0.00	24.19
		RO						2.50	0.30	3.69	3.66	3.36	0.00	4.30	9.11	26.92
12	Number of Procurement Packages								2	2	2	2		2	1	11

FESCO = Faisalabad Electric Supply Company, G = goods, GEPCO = Gujranwala Electric Power Company, HESCO = Hyderabad Electric Supply Company, IESCO = Islamabad Electric Supply Company, LESCO = Lahore Electric Supply Company, MEPCO = Multan Electric Power Company, PEPCO = Pakistan Electric Power Company, PESCO = Peshawar Electric Supply Company, QESCO = Quetta Electric Supply Company, S = services, SSOE = single stage one envelope, T = turnkey, W = works.

15. The Table-A3.3 details the contract packages agreed for Tranche-2 to be financed under the investment project.

Table A3.3: Tranche-2 Revised Contract Packages for Goods and Works

No.	Proposed Procurement Packages	Procurement Method	Domestic Preference	Prequalification	Contract Type	Bidding Procedure	Expected Advertising Date	FESCO	GEPCO	HESCO	IESCO	LESCO	MEPCO	PESCO	QESCO	Total
	(\$ million)		Y/N	Y/N		ļ										
1	Power transformers, Circuit Breakers, isolators and Panels	ICB	Υ	N	G	SSOE	Q2/10	15.3	4.1		6.0	9.6	9.6	·14.4	13.8	72.6
2	Cables, Conductors, Ancillary Equipment, Capacitors and Misc Equipment	ICB	Y	N	G	SSOE	Q2/10	2.6	0.7	0.9	5.5	4.0	7.8	2.6	4.8	31.0
	Grid Station at God Pur with T/L and	ЮВ	•	IV	0	3302	Q2/10	2.0	0.7	0.9	0.0	4.0	7.0	2.0	4.0	31,0
3	Daska Grid Stations at Khaleli Bypass and Sheranwala Gate GIS	ICB	Y	N N	Т	SSOE	Q3/10 Q3/10		11.1							11.1
5	Conversion at Kohlu Tarrar and Jalapur Nau with T/L	ICB	Y	N	Т	SSOE	Q4/10		7.6							7.6
	Procurement of 5 new transmission lines (127.6 KM) - different					,										
6	circuits Grid Station at	ICB	Υ	N	Т	SSOE	Q4/10		12.2	,						12.2
7	Jaccababad- II with T/L	ICB	Υ	N	Т	SSOE	Q3/10			2.9						2.9
8	Conversion at Sukkur City and Larkana Old, with T/L	ICB	Y	N	т	SSOE	Q3/10			6.9						6.9
9	Conversion at Talhar and Badin, with T/L	ICB	Y	N	T	SSOE	Q4/10			10.5						10.5

							1			,			,		,	
	Procurement of 3 new transmission lines (260 KM) -															
	différent												1			
10	Conversion	ICB	Y	N	T	SSOE	Q4/10		 	9.7	<u> </u>	-	<u> </u>		ļ	9.7
11	at N. P. Sethi, with T/L	ICB	Υ	N	T	SSOE	Q3/10				5.1					5.1
12	Procurement of 2 new transmission lines (70 KM) - different circuits	ICB	Y	N	Т	SSOE	Q4/10				6.0					6.0
13	Grid Stations at DHA Rahber, Jubilee Town and Central Park, with T/L	ICB	Y	N	Т	SSOE	Q3/10					7.1				7.1
14	Grid Stations at Press Club and Doula Chuchak, with T/L	ICB	Y	N	Т	SSOE	Q4/10					5.1				5.1
15	Grid Stations at WAPDA Town and Miranpur, with T/L	ICB	Υ	N	т	SSOE	Q3/10						6.6			6.6
16	Grid Station at Kamir with T/L	ICB	Y	N	Т	SSOE	Q3/10						2.9			2.9
17	Conversion at Alipur and Fatehpur, with T/L	ICB	Y	N	Т	SSOE	Q4/10						5.4			5.4
. 18	Conversion at Noor Sar with T/L	ICB	Y	N	Т	SSOE	Q4/10						2.3			2.3
19	Grid Stations at Warsak Road and D. I. Khan Ind, with T/L	ICB	Y	N	Т	SSOE	Q3/10						2.0	6.8		6.8
	Subtotal		<u>-</u>					18	44	31	23	26	34	24	21	220
	Number of Procurement Packages							2	6	5	4	4	6	3	2	32

Note: Borrower may request approval from Asian Development Bank to apply domestic preference procedure to packages where goods are manufactured in Pakistan. The default procedure is for domestic preference not to apply.

16. The templates below outline the tasks and the time it takes on average to complete a task under ICB procurement method and QCBS recruitment method. These are applicable to an average case, and therefore may vary depending on the specific needs of a project.

ICB - Single Stage One Envelope

Single-Stage: One-Envelope (1S1E) Procedure	254 days
PREPARATORY	89
 EA drafting of bidding document including technical specifications and specific procurement notice (SPN) 	60
2. EA submitting draft bidding document and SPN to ADB	7
3. ADB reviewing draft bidding document and SPN	10
4. ADB posting of SPN on ADB website	1
5. ADB sending consolidated comments to EA	7
6. EA finalizing bidding documents	
7. EA advertising in local English newspaper	2
ISSUANCE OF BIDDING DOCUMENTS	30
8. EA issuing bidding documents	30
BIDDING PERIOD	42
9. Bidders preparing bids	42
BID CLOSING/OPENING	8
10. Bid closing and opening	1
11. EA submitting signed record of public bid opening to ADB	7
BID VALIDITY AND BID SECURITY	118
12. Bid Validity Expiry Date	90
13. Bid Security Expiry Date	28
BID EVALUATION	52
14. EA evaluating and preparing bid evaluation report	45
15. EA submitting bid evaluation report to ADB	7
ADB APPROVAL OF BID EVALUATION REPORT	23
16. ADB reviewing of bid evaluation report	21
17. ADB advising EA of approval	2
AWARD OF CONTRACT	30
18. EA notifying successful Bidder of award	2
19. EA sending successful Bidder the Contract Agreement	7
20. Successful Bidder submitting signed Contract Agreement to EA	28
21. Successful Bidder furnishing Performance Security to EA	28
EA SUBMITTING COPY OF SIGNED CONTRACT TO ADB	7

Quality and Cost Based Selection - Consultant recruitment

Loan_C	QCBS-FTP > \$1 million (Full Technical Proposal)	242 days
_	EA submitting advertisement to ADB for posting on ADB website	2 days
	ADB reviewing before posting Consulting Services Recruitment Notice (CSRN) on ADB website	2 days
	Consultants expressing interest	30 days
	EA finalizing Terms of Reference (TOR), preparing Narrative Evaluation Criteria, Summary and Personnel Evaluation Sheets	30 days
	EA Consultant Selection Committee (CSC) preparing longlist & shortlist	10 days
	EA submitting shortlisting documents to ADB - Submission 1	10 days
	ADB reviewing shortlisting documents	7 days
	ADB sending approval of shortlist with comments on RFP to EA	1 day
	EA revising RFP based on ADB comments	2 days
	EA issuing RFP to shortlisted firms	3 days
	Shortlisted firms preparing proposals	45 days
	EA CSC evaluating technical proposals	21 days
	EA convening CSC evaluation meeting	2 days
	EA CSC preparing technical evaluation report	5 days
	EA submitting technical evaluation report to ADB - Submission 2	2 days
	ADB reviewing technical evaluation report	7 days
	ADB sending approval of technical evaluation to EA	1 day
	EA issuing invitation for public opening of financial proposals	1 day
	Preparing for public opening	5 days
	Public opening of financial proposals	1 day
	EA CSC evaluating financial proposals and overall ranking	7 days
	EA preparing and signing of overall ranking minutes	7 days
	EA submitting signed overall ranking report to ADB - Submission 3	7 days
	ADB reviewing overall ranking report	7 days
	ADB sending approval of overall ranking to EA	1 day
	EA issuing invitation for contract negotiations	2 days
	Preparing for contract negotiations	14 days
	EA negotiating contract with consultant	5 days
	EA submitting draft negotiated contract to ADB - Submission 4	7 days
	ADB reviewing and sending approval of draft negotiated contract to EA	5 days
	EA signing of contract with consultant	7 days
	EA issuing Notice to Proceed to consultant	2 days
	Fielding of consultant's team	14 days

3.3 National Competitive Bidding (NCB)

17. The NCB procedures in detail are detailed below. These procedures will guide all procurement under NCB.

A. General

18. The procedures to be followed for national competitive bidding shall be those set forth in the Public Procurement Rules 2004 [S. R. O. 432 (1)/2004] issued on the 9th June 2004 by the Public Procurement Regulatory Authority Ordinance 2002 (XXII of 2002) of the Islamic Republic of Pakistan with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB Procurement Guidelines.

B. Registration

- 19. Bidding shall not be restricted to pre-registered firms and such registration shall not be a condition for participation in the bidding process.
- 20. Where registration is required prior to award of contract, bidders: (i) shall be allowed a reasonable time to complete the registration process; and (ii) shall not be denied registration for

reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.

C. Prequalification

21. Normally, post-qualification shall be used unless prequalification is explicitly provided for in the loan agreement/procurement plan. Irrespective of whether post qualification or prequalification is used, eligible bidders (both national and foreign) shall be allowed to participate.

D. <u>Bidding Period</u>

22. The minimum bidding period is twenty-eight (28) days prior to the deadline for the submission of bids.

E Bidding Documents

23. Procuring entities shall use the applicable standard bidding documents for the procurement of goods, works and services acceptable to ADB.

F. <u>Preferences</u>

24. No domestic preference shall be given for domestic bidders and for domestically manufactured goods.

G. Advertising

25. Invitations to bid shall be advertised in at least one widely circulated national daily newspaper or freely accessible, nationally-known website allowing a minimum of twenty-eight (28) days for the preparation and submission of bids. NCB contracts estimated to cost \$500,000 or more for goods and related services and \$1,000,000 or more for civil works will be advertised on ADB's website via the posting of the Procurement Plan.

H. Bid Security

26. Where required, bid security shall be in the form of a bank guarantee from a reputable bank.

I. <u>Bid Opening and Bid Evaluation</u>

- 27. Bids shall be opened in public
- 28. Evaluation of bids shall be made in strict adherence to the criteria declared in the bidding documents and contracts shall be awarded to the lowest evaluated bidder.
- 29. Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.
- 30. No bidder shall be rejected on the basis of a comparison with the employer's estimate and budget ceiling without the ADB's prior concurrence.

- 31. A contract shall be awarded to the technically responsive bid that offers the lowest evaluated price and no negotiations shall be permitted.
 - J. Rejection of all Bids and Rebidding
- 32. Bids shall not be rejected and new bids solicited without the ADB's prior concurrence.
 - K. Participation by Government-owned enterprises
- 33. Government-owned enterprises in the Islamic Republic of Pakistan shall be eligible to participate as bidders only if they can establish that they are legally and financially autonomous, operate under commercial law and are not a dependent agency of the contracting authority. Furthermore, they will be subject to the same bid and performance security requirements as other bidders.
 - L. <u>ADB Member Country Restrictions</u>
- 34. Bidders must be nationals of member countries of ADB, and offered goods and services must be produced in and supplied from member countries of ADB.

Annex 4: Safeguards Plan

4.1 Environment

35. All DISCOs shall ensure:

- (a) The Investment program and its subprojects are carried out in accordance with the Borrower's environmental laws and regulations, the ADB's Environment Policy (2002), (for sub-projects initiated after June 2009, ADB's Safeguard Policy Statement shall apply), the EARF, including updates thereto agreed with ADB, and respective IEEs, SIEEs, and EMPs included in the IEEs;
- (b) All mitigation and monitoring measures identified in the respective EMP are incorporated into detailed design of the Subproject and implemented during the construction and operation of the Project facilities;
- (c) All contracts under the Subprojects contain provisions on compliance with these requirements;
- (d) Implementation of the EMPs is monitored and evaluated internally and externally; and
- (e) Results of such monitoring and evaluation are reported to ADB.

4.2 Land Acquisition and Resettlement

- 36. All participating DISCOs shall ensure that:
 - (i) All land and rights-of-way required by the subprojects are made available in a timely manner;
 - (ii) Provisions of the relevant LARP are implemented promptly and efficiently according its terms, applicable laws and regulations of Pakistan, ADB's *Policy on Involuntary Resettlement*, ADB's Operational Manual F2 on Involuntary Resettlement (2003), and the Land Acquisition Resettlement Framework (LARF). In case of sub-projects initiated after June 2009, the relevant provisions in ADB's *Safeguard Policy Statement* shall apply.
 - (iii) Relevant LARPs are updated based on the detailed design, prepared in full consultation with the affected persons and disclosed to them prior submitting the resettlement plan to ADB;
 - (iv) No "notice to proceed" is given to a contractor for commencement of construction works under the Subproject, until all compensations specified in the respective LARP have been paid to the affected persons;

- (v) Contractors' activities are in compliance with requirements of resettlement plans, the LARF, applicable domestic laws, and ADB's *Policy on Involuntary Resettlement;*
- (vi) Establish a grievance mechanism and procedure accessible to the Affected People;
- (vii) An independent monitor acceptable to ADB should be engaged to carry out monitoring and evaluation and report to ADB in accordance with the requirements of the resettlement plans.
- 37. RPs under category 'B' and 'C' should be reviewed and approved by ADB's Resident Mission in Pakistan. For RPs under category 'A', it should be reviewed and approved by the Regional department at ADB headquarters (i.e., CWRD).
- 38. Any changes in the location, land alignment of facilitating roads, or environment impacts on account of detailed designs of related subprojects will be subject to prior approval by ADB or related agency in accordance with the subproject selection criteria and procedures included in the FFA. The signing of civil work contracts or a similar milestone are subject to ADB's review and approval.
- 39. DISCO specific actions under Tranche -1 (In addition to what is described above):

DISCO	Specific Actions	Remarks
IESCO	No specific actions are identified in the Plan.	
GEPCO	Fatehpur 132 kV Transmission Line	If this is removed out of Tranche-1, then the
	Short LARP was prepared for 17.23 kilometer transmission line. Fifty four (54) affected families were identified due to project impact on crops and trees. Costs of compensation/ rehabilitation are calculated at \$124,576. Compensation of damages will be provided to the identified APs before the civil contract is awarded.	scope of the
	Note: If Sheranwala Barg (GIS) project is approved, the required assessments and due diligence should be carried out to determine what actions are required under ADB's IR policy.	
LESCO	132 kV Sukh Chayn Gardens Grid Station	
	A DDR had been prepared for the land of the grid station. No involuntary resettlement impact recorded.	
MEPCO	New LAR 132 kV Grid station and Transmission Line.	

Short LARP was prepared for 270 meter transmission line. A DDR prepared for the land of the grid station. The land purchased by MEPCO on a willing buyer and seller. Four affected families were identified due to project impact on crops and trees. Costs of compensation/rehabilitation are calculated at \$232, 004. Compensation of damages will be provided to the identified APs <u>before</u> the civil contract is awarded.

Fazilpur 132 kV Transmission Line

Short LARP was prepared for 1.06 km transmission line. Four affected families were identified due to project impact on crops and trees. Costs of compensation/ rehabilitation are calculated at \$7,561. Compensation of damages will be provided to the identified APs <u>before</u> the civil contract is awarded.

Shahdan Lund 132kV Transmission Line

Short LARP was prepared for 2.95 kilometer transmission line. One affected family was identified due to project impact on crops and trees. Costs of compensation/ rehabilitation are calculated at \$17,173. Compensation of damages will be provided to the identified AP before the civil contract is awarded.

PESCO Karak 132 kV Transmission Line

Short LARP was prepared for 5.4 kilometer transmission line. Six affected families were identified due to project impact on crops and trees. Costs of compensation/ rehabilitation are calculated at \$25, 972. Compensation of damages will be provided to the identified Aps before the civil contract is awarded.

QESCO Kanak 132 kV Transmission Line

Short LARP was prepared for 5.4 kilometer transmission line. Six affected families were identified due to project impact on crops and trees. Costs of compensation/ rehabilitation are calculated at \$25, 972. Compensation of damages will be provided to the identified Aps before the civil contract is awarded.

Alizai-Hurumzai 132 kV Transmission Line

Short LARP was prepared for 13.42 kilometer transmission line. Twelve affected families were identified due to project impact on crops and trees. Costs of compensation/ rehabilitation are calculated at \$70,168. Compensation of damages will be provided to the identified Aps before the civil contract is awarded.

- 40. DISCO specific actions under Tranche-2: Twenty nine (29) subprojects required the preparation of short LARPs, seven (7) required only a DDR. Impacts and resettlement cost summaries for each DISCO are provided below, along with brief summary of the impacts /costs:
 - Gujranwala Electric Power Company [GEPCO]. GEPCO has ten (10) that (i) needed a short LARP and one (1) sub project that required only a DDR. Sherianwala Bagh a new substation built on GEPCO owned land has no land acquisition cost, the transmission line feeding that new station is to be built by GEPCO through their own resources, however the line being an associated sub project the social impact assessment was carried out and is included in the DDR. Khiali Bypass 132kV Substation subproject as the transmission line is already passing over the site so no additional line will be required. A total of three households (HH) will be affected by this subproject of them one HH will be affected by land and structure and two HH will be affected by land and crops. The costs for compensation for the three AHs and administrative charges (including an administration charge of 15% of compensations, and 10% contingency) are Rs. 77.853 million Rs (US\$ 973,158). The Hafizabad Road 132kV transmission line subproject comprises the construction of a new 25.328 km transmission line, subproject will pass through four villages and affect a total of 70.38 ha of crops and 86 wood trees. There are 53 affected households (AHs) losing the crops and trees, with a population of 647 (APs). The costs for compensation for the 53 AHs is Rs. 15.33 million Rs (US\$ 189,242). Sahuwala Pasrur 132kV transmission line subproject comprises a new 43.443 km transmission line, This subproject will pass through six villages and affect a total of 126.79 ha of crops and 227 wood trees. In six villages a total of 157 households with a population of 1,562 will be affected by crop and tree damage, The costs for compensation for the 157 AHs is Rs. 27.58 million (US\$ 350,061). Conversion of Jalalpur Nw 132kV GS and transmission line subproject comprises, conversion of an existing substation and construction of a new 15.9 km long 132kV double circuit transmission line. The transmission line will pass through four villages and will temporarily affect a total of 47.15 ha of crops and 81 trees. There are 52 affected households (AHs) losing agricultural crops and trees, with a total population of 481 (APs), The total cost of this LARP is estimated at Rs. 12.24 million (US\$ 155.322). Godh Pur 132kV GS and transmission line subproject comprises construction of a new substation, the substation will be constructed at Toknanwali village adjacent to Sialkot city at Air Port Road. The substation will be linked to the 132 kV Sahuwala substation by constructing a new 9.751 km long 132kV transmission line, Substation will be constructed on 2.88 acres (1.17 ha) of land which is already acquired for the same purpose. The transmission line will pass through six villages and will

temporarily affect a total of 27.19 ha of crops and 53 trees. A total of 54 households will be affected by this subproject losing agricultural land, crops and trees, with a total population of 465 (APs),, The total cost of this LARP, including for compensation for the 54 AHs is estimated at Rs. 29.24 million (US\$ 371.120). The Construction of Naukhar Hafizabad II 132kV double circuit transmission line subproject, Total length of the transmission line is 27.835 KM and it will pass through seven villages and will temporarily affect a total of 81 ha of crops and 115 wood trees. There are 128 affected households (AHs) losing agricultural crops and trees, with a total population of 1,159 (APs), The total cost of this LARP, including for compensation for the 128 AHs is estimated at Rs. 17.91 million (US\$ 227,249). Construction of Hafizabad I Hafizabad II 132kV double circuit transmission line subproject comprises 15.492 km transmission line, it will pass through five villages and will temporarily affect a total of 45.84 ha of crops and 64 wood trees. There are 62 affected households (AHs) losing agricultural crops and trees, with a total population of 608 (APs). The total cost of this LARP, including for compensation for the 62 AHs is estimated at Rs. 11.24 million (US\$ 142,680). In-out Gujranwala New to Their Sensi transmission line sub project comprise of constructing a new 15.5 km long 132kV double circuit transmission line, the transmission line will pass through five villages and will temporarily affect a total of 46 ha of crops and 79 wood trees. There are 67 affected households (AHs) losing agricultural crops and trees, with a total population of 606 (APs), The total cost of this LARP, including compensation for the 67 AHs is estimated at Rs. 11.71 million (US\$ 148,548). New Daska 132kV GS and transmission line subproject comprises a new substation to be built upon 5.94 acres (2.41 ha) of land which is already acquired for the same purpose and a new 3.515 km long 132kVtransmission line, the transmission line will pass through two villages and will temporarily affect a total of 10.5 ha of crops and 17 trees. A total of 21 households will be affected by this subproject losing agricultural land, crops and trees, with a total population of 181 (APs), The total cost of this LARP is estimated at Rs. 16.68 million (US\$ 211,638). Conversion of Kolu Tarar 132kV GS and transmission line subproject comprises construction of a new substation on land already owned by GEPCO and a new 8.4 km long 132kV transmission line, the transmission line will pass through three villages and will temporarily affect a total of 25 ha of crops and 68 trees. There are 26 affected households (AHs) losing agricultural crops and trees, with a total population of 249 (APs). The total cost of this LARP is estimated at Rs. 8.51 million (US\$ 107.969).

(ii) Multan Electric Power Company (MEPCO). MEPCO has three (3) sub projects that required that a short LARP be prepared and three (3) sub projects that required that a DDR be prepared. This Subproject comprises the construction of a 132kV substation, namely the WAPDA Town Substation, and a 290 meters long 132 KV double circuit transmission line, The new substation will be constructed on a plot of land already owned by MEPCO and a new 132kV double circuit transmission line (290 m), involving one tower and three tubular poles, requiring merely 5 m wide right-of-way through the main street of the planned WAPDA Town. The Alipur 132kV transmission line subproject comprises the construction of 11.359 km long Alipur 132kV double circuit transmission line, the line will pass through four villages and affect a total of 7.93 ha of crops and 421 trees (372 fruit & 49 wood trees). There are 62 affected households (AHs) losing the crops and trees, with a population of 549 (APs), The costs for compensation

for the 62 AHs is Rs. 15.662 million (US\$ 232,372). The Conversion Fatehpur 132kV and transmission line subproject comprises the building of a new substation on land already owned by MEPCO and a new 2.67 km long transmission line, the transmission line will pass through two villages and temporarily affect a total of 7.93 ha of crops and 78 trees (74 wood & 4 fruit trees). There are 15 affected households (AHs) losing agricultural crops and trees, with a total population of 151 (APs). The total cost of this LARP is estimated at Rs. 5.11 million (US\$ 67,431). Subproject Kameer comprises a 132 KV substation named Kameer Substation and a 60 meters long 132 KV double circuit transmission line, substation will require forty nine Kanals and eight Marlas (6.175 Acres) of land which MEPCO is purchasing directly from the land owner, there is one tube well on this land, which is owned by the land owner who is willing to sell it to MEPCO, the transmission line requires one tower which will be constructed within the confines of the newly acquired land without affecting any person at all. The Miranpur 132kV GS and transmission line subproject comprises, a new substation and a new 11.390 km long 132kV transmission line, MEPCO has purchased 5.72 acres of land at Gilaywal for the construction of substation, so no involuntary land acquisition is involved, The transmission line will pass through four villages and will temporarily affect a total of 33.45 ha of crops and 122 wood trees. There are 71 affected households (AHs) losing agricultural crops and trees and one structure, with a total population of 689 affected people (APs), The total cost of this LARP, including for compensation for the 71 AHs is estimated at Rs. 17.5 million (US\$ 222,074). Noor Sir conversion to 132 kV and transmission line sub project comprises of conversion of an existing substation to 132 kV and the one tower required to connect the substation to the system will be locate within the confines of the already owned land, there is thus no social cost involved with this sub project.

Hyderabad Electric Supply Company (HESCO). HESCO has eight (8) sub (iii) projects that required that a short LARP be prepared. The 2nd Circuit stringing of Sanghar Kandiari Mir Pur Khas transmission line subproject comprises The 2nd Circuit stringing of Shikarpur_Larkana transmission line subproject, and to link the with an existing substation with a portion of 1,870 meter which will require installation of 8 new towers. The transmission line will pass through twelve villages and will temporarily affect a total of 113.61 ha of crops and 111 trees. There are 128 affected households (AHs) losing agricultural crops and trees, with a total population of 1,537 (APs), total cost of this LARP, including for compensation for the 128 Ahs is estimated at Rs. 21.52 million (US\$ 273.121). The 2nd Circuit stringing of Shikarpur_Larkana transmission line subproject comprises The 2nd Circuit stringing of Shikarpur_Larkana transmission line subproject, 67.892 km transmission line will pass through 23 villages of district Shikarpur and district Larkana. The initial 38.478 km of the transmission will pass through district Shikarpur and the last 29.414 km of the line will pass through district Larkana. The transmission line will traverse private farmland for most of its length 48,810.5 meter (72%) and 19,081.5 meter (28%) uncultivated private and government lands (Canal, Road, Paths and watercourses). As a result, some 162 AHs, with a total population of 1,687 persons (APs), will be affected by, and loss of 146.43 ha of crops and 29 wood trees. The transmission line will pass through twenty three villages and will temporarily affect a total of 146.43 ha of crops and 29 wood trees. There are 162 affected households (AHs) losing agricultural crops and trees, with a total population of 1,687 (APs), The total cost of this LARP, including for compensation for the 162 AHs is estimated at Rs. 15.09 million (US\$ 191,438). Conversion of Badin 132kV GS and transmission line subproject, comprises the conversion of an existing substation to 132 kV and a new 132 kV 23.49 km long 132kV transmission line will pass through four villages and will temporarily affect a total of 67.83 ha of crops and 56 trees. There are 59 affected households (AHs) losing agricultural crops and trees, with a total population of 716 (APs), The total cost of this LARP, including for compensation for the 59 AHs is estimated at Rs. 18.29 million (US\$ 232,103. The Conversion of Larkana GS and 132 kV transmission line subproject, comprises the conversion of an existing substation to 132 kV and a new 132 kV 2.44 km long circuit transmission line, most of the line will be traverse in the right of way of road so it will temporarily affect only a total of 1.51 ha of crops. There are only four affected households (AHs) losing agricultural crops, with a total population of 57 (APs), Most of the line will be traversed in the right of way of road so it will temporarily affect only a total of 1.51 ha of crops. The total cost of this LARP, including for compensation for the eight AHs is estimated at Rs. 2.42 million (US\$ 30,705). Conversion of Sukkur GS and 132 kV transmission line subproject comprises the conversion of an existing substation to 132 kV and a new 132 kV 7.53 km long transmission line, Most of the line will be traversed in the right of way of road and canal so it will temporarily affect only a total of 4.34 ha of crops. There are only eight affected households (AHs) losing agricultural crops, with a total population of 95 (APs), The total cost of this LARP, including for compensation for the eight AHs is estimated at Rs. 3.2 million (US\$ 40,839). Conversion of Talhar 132kV GS and transmission line comprises the conversion of an existing substation to 132 kV and a new 132 kV 41.66 km long transmission line, the transmission line will pass through six villages and will temporarily affect a total of 106.62 ha of crops and 142 trees. There are 111 affected households (AHs) losing agricultural crops and trees, with a total population of 1,307 (APs), the total cost of this LARP, including for compensation for the 111 AHs is estimated at Rs. 28.07 million (US\$ 356.238). Jacobabad New substation and transmission line sub project comprises of 132 KV substation and 132 KV transmission line. The substation is to be built on nine acres and two Marlas (3.65 ha) of land which HESCO is purchasing directly by the land owner, there is one abundant brick kiln on this land, which is owned by the land owner who is willing to sell it to HESCO. So there is no involuntarily land accusation required for the Substation only one tower will be constructed which will be constructed within the confines of the newly acquired land, there are no affected persons except one abundant brick kiln there is neither any structure nor any tree being affected by this sub project, The total price of land amounting at Rs. 5.41 million will be paid to the only landowner, cost of the Brick Kiln is assessed at open market rate which is fifty two thousand rupees which is agreed between HESCO and land owner, total social cost s US \$ 72,427. 132kV Larkana Mehar Dadu transmission line subproject, comprises construction of 127.72 km 132 kV transmission line, the transmission line will pass through twenty two villages and will temporarily affect a total of 356.18 ha of crops and 238 trees. There are 452 affected households (AHs) losing agricultural crops and trees, with a total population of 4,991 (APs), The total cost of this LARP, including for compensation for the 452 AHs is estimated at Rs. 36.55 million (US\$ 463,866).

- (iv) Islamabad Electric Supply Company (IESCO). IESCO has two sub projects that required that a LARP be prepared. Bagh to Hattian 132kV transmission line subproject comprises of construction of a new 25.22 km long transmission line, the transmission line will pass through two villages of Bagh district and three villages of Muzaffarabad district temporarily affect a total of 75.65 ha of crops and 932 trees (918 forest wood trees and only 14 privet wood trees), the total cost of this LARP, including for compensation for the 6 AHs is estimated at Rs. 23,170 million (US\$ 294,039). Choa Saidan Shah to Noor Pur Sethi (CSS-NPS)conversion and 132kV transmission line subproject comprises of conversion of an existing substation to 132 kV and a new 47.65 km long transmission line. The transmission line will pass through six villages of Chakwal district and temporarily affect a total of 55.15 ha of crops and 148 trees (79 fruit trees and 69 wood trees). The Subproject will affect a total of 171 farming households (AHs) losing agricultural crops and trees, with a total population of 2,158 (APs), The total cost of this LARP, including for compensation for the 171 AHs is estimated at Rs. 7.95 million (US\$ 100,899).
- Lahore Electric Supply Company (LESCO). LESCO has four (4) substations that (v) required that a LARP be prepared . Central Park 132kV GS and transmission line subproject comprises a new substation and 13.82 km long 132kV transmission line, Central Park housing society has donated thirty two Kanals and eight Marlas (1.66 ha.) of land voluntarily to LESCO for the construction of substation, so no land acquisition is involved,. The transmission line will pass through four villages and will temporarily affect a total of 30.77 ha of crops, one poultry farm and 78 trees (36 wood & 42 fruit trees),). There are 46 affected households (AHs) losing agricultural crops and trees and one structure, with a total population of 393 (APs),. The total cost of this LARP, including for compensation for the 46 AHs is estimated at Rs. 10.11 million (US\$ 126,429). DHA Rahbar sub project comprises a 132 kV substation named DHA Rahbar Substation and 82 meters long 132 KV double circuit transmission line, The new substation has been designed to construct on the land previously owned by DHA Rahbar donated to LESCO voluntarily, the transmission line will be constructed within the confines of the newly acquired substation, This substation will be constructed on 3.3 acres of land. And The 82 meter long transmission line will require two towers. Both the towers will be constructed along the road in the DHA Rahbar colony premises. Doula Chuchak 132kV GS and transmission line subproject comprises a new substation and 20.01 km long 132kV transmission line, land for the substation is the property of LESCO and transmission line will pass through five villages and will temporarily affect a total of 58.01 ha of crops and 127 wood trees. There are 133 affected households (AHs) losing agricultural crops and trees, with a total population of 1,066 (APs), The total cost of this LARP, including for compensation for the 133 AHs is estimated at Rs. 13.48 million (US\$ 168,523). Jubilee Town Substation and Transmission Line Subproject comprises a 132 kV substation named Jubilee Town Substation and a 1,667 meters long 132 KV double circuit transmission line., The new substation has been designed to construct on the land owned by Jubilee Town donated to LESCO voluntarily. Jubilee town is located in the south of Lahore city on the Canal road along the Bahria Town, a new 1,667 meter 132 kV DC transmission line will be constructed, the initial 55 meters will pass on the right of way of irrigation and highway department and the remaining portion of the line will be traversed with in the Jubilee town housing colony. Press Club Substation and

- **Transmission Line** Sub Project comprises a 132 kV substation named Press Club Substation and a 142 meters long 132 KV double circuit transmission line, The new substation has been designed to construct on the land owned by Press Club housing Colony previously, donated to LESCO voluntarily. Press Club, This substation will be constructed on four acres of land, and The 142 meter long transmission line will require three SPG poles, All These three poles will be constructed within the substation boundary
- (vi) Peshawar Electric Supply Company (PESCO). PESCO has two sub projects that require that a ALRP be prepared. Gomal University (D.I.Industrial), D.I.Khan Industrial 132kV substation and transmission line subproject comprises a new 132 kV substation and new 2.11 km long 132kV transmission line. Gomal University (GU) instantly agreed to donate 64 kanals of land to PESCO but PESCO preferred to purchase the land to avoid any future complications. The deal has been finalized between PESCO and GU by fixing a negotiated price of land, and PESCO is now processing the case for preparation of mutation papers, transfer of funds and physical possession of the land, The new 132kV transmission line will involve the construction of a total of 9 towers, of which only 4 towers will be constructed in the private farmlands, thereby affecting temporarily crops and trees of a total of 7 landowner farmers, with no tenants. Since a vacant piece of land is being purchased by PESCO from GU, also a government organization, for constructing of a new 132kV substation, no people will be affected, and hence the ADB Resettlement Policy is not triggered. But the construction of the new 2.11 km long new 132kV transmission line will temporarily affect farmlands of a total of seven farming households. The total cost of this LARP, including compensation for 7 AHs including the land for substation, is estimated at Rs. 11.9 million (US\$ 151,012). The Warsak Road 132kV substation and transmission line subproject comprises a new substation and 8.8 km long 132 kV transmission line, the new gird station will be constructed on 60.7 kanals (3.07 ha) of land acquired by WAPDA in 1995 from 15 landowners (142 APs) of Palosai Atozai village, and transferred the same to PESCO in 1998, the transmission line will pass mostly through irrigated farmlands of ten villages and temporarily affect 21.21 ha of crops and 386 trees (65 fruit and 321 wood trees). This will result in affecting a total 39 farming households (AHs) with a population of 382 persons (APs). Overall, the subproject will affect a total of 54 AHs with a total population of 524 persons (APs), The total cost of this LARP, including compensation for the AHs including the land for substation, is estimated at Rs. 33.4 million (US\$ 423,328).

Land Acquisition and Resettlement (LAR) Committees & Other Institutions

- 41. As indicated in the approved and agreed Land Acquisition and Resettlement Framework (LARF) three coordination committees are required to be established of the LAR process. But as the impact of LAR activities in the Tranche-1 and Tranche-2 subprojects are small and limited, only two LAR related committees are required to be established and initiated by relevant PMUs/ DISCOs. They are:
 - (i) A LAR Coordination committees (LCC). This committee to be formed in every district of the subproject with LAR impacts. This committee will provide coordinating node for preparation and implementation of LARPs. The members of the committee include representative of PIU, Social Cell, DCO, DOR, of the

- concerned district, as well as the Tehsildar and Nazim of the concerned sub district to represent the Aps. This committee should be established in the beginning of project implementation.
- (ii) Grievance Redressal Committee (GRC). This committee should be established in the concerned District office under request by relevant PMU before the implementation of LARPs. The committee will be activated by a grievance lodged in the district office. The members of this committee are representative of PIU, Social/ resettlement cell, Union Council/ Nazims, members of local NGO or resettlement specialist/ consultant specifically hired for the purpose.

DISCO/PEPCO Complaint Cells

42. Aside from the committees above, the Complaint Cells at each DISCO can be utilized by the Affected People to file their complaints related to the subprojects. The staff of the existing complaint cell at each DISCO and PEPCO office will be responsible to register the complaints and forward the case to the respective PMU Team Leader and Social Cell for their response and action. The respective officers need to response within 21 days of the complaint.

External Monitoring Agency (EMA)

- 43. As required by ADB resettlement policy and indicated in the approved and agreed LARP documents an independent agency will be appointed for external monitoring activity of each subproject. However, as the LAR impacts in the tranche-1 were small, the responsibility of the EMA was included in the scope of Project Implementation Consultant. In case of Tranche-2, a single agency can be appointed to monitor all the subprojects. Below are the specific conditionality of EMA selection and appointment.
 - (i) EMA will be selected and appointed by PEPCO
 - (ii) The EMA will be chosen among the local consultants/ NGO or university.
 - (iii) ADB will provide TOR of EMA and to be finalized by the PMU.
 - (iv) The EMA should be appointed before the contract award of subprojects with LAR impacts
 - (v) EMA reports and results have to be communicated to ADB through project quarterly implementation reports.

LAR Activities Schedule and Budget

- 44. Each participating DISCO is required to prepare and submit to ADB the LAR activities schedule/time frame, cost and financing plan to be included in this document. Some key milestone activities to be included in the schedule are:
 - (i) LARP finalizing/ updating (damage assessment/survey, consultation and determination of compensation rate)
 - (ii) LARP disclosure
 - (iii) The EMA selection and appointment
 - (iv) Establishment of LAR and GRC committees
 - (v) LARP implementation (payment of lost and damages and other entitlements to the affected people)
 - (vi) LARP monitoring and reporting to ADB
 - (vii) Contract award and starting the civil work activities

4.3 Indigenous People

- 45. No Indigenous People (IP) have been identified in the project affected areas for Tranche-1 or Tranche-2 subprojects.
- 46. However, if there is IP identified during the project implementation the DISCO shall ensure:
 - (a) all Subprojects affecting indigenous people are constructed and operated in accordance with the requirements of the Borrower's applicable laws and regulations, ADB's Policy on Indigenous Peoples (1998) as specified in the IPDF, and detailed in the respective IPDPs (or LARPs). For all subprojects initiated after June 2009, the provisions of ADB's Safeguard Policy Statement shall apply.;
 - (b) the implementation of the IPDPs is monitored and evaluated internally and externally; and (c) results of such external monitoring and evaluation are reported to ADB.
- 47. As specified in the IPDF project to be carried out in tribal areas like FATA, PATA, Frontier Regions (FR) attached to various Districts in NWFP, Balochistan and Punjab provinces Indigenous People Identification Assessment or IPIA will have to be prepared. An IPDP or specific Indigenous People Development Action (IPDA) might be required as part of preparation of each tranche.
- 48. IPDPs category 'B' will be reviewed and approved by PRM and for IPDPs category 'A' by regional departments at headquarters.

4.4 Other Safeguards

- 49. The DISCO shall ensure that all contracts under the Project include specific clauses requiring that all contractors:
 - (a) Comply with all applicable labor laws of the Borrower and pertinent occupational health and safety regulations;
 - (b) Use their best efforts to employ women living in the vicinity of the Project Area;
 - (c) Disseminate information at worksites on the risks of sexually transmitted diseases and HIV/AIDS for those employed during construction, and take measures to protect workers from potential exposure to sexually transmitted diseases;
 - (d) Do not differentiate between men and women's wages or benefits for work of equal value; and
 - (e) Abstain from child labor. The DISCO shall strictly monitor the effects of Subprojects on women during their implementation through gender-disaggregated data collected, where relevant, pursuant to the PPMS.

50. The DISCO shall ensure:

- (a) within (6) months of the Effective Date, an environmental officer and a social officer are appointed in the DISCO's environmental and social cell to conduct an internal monitoring and evaluation of the implementation of the LARPs, IPDPs, and EMPs;
- (b) results of such monitoring are included in quarterly progress reports to be submitted to ADB;
- (c) within four (4) months of the Effective Date, an external agency or an NGO acceptable to ADB is engaged to conduct external monitoring and evaluation of the implementation of the LARPs, IPDPs, EMPs and their impacts; and
- (d) external monitoring and evaluation reports are provided to ADB on a semi-annual basis.

Annex 5: Financing Plan

5.1 ADB Financing, Fund Flow and Disbursement Arrangements

Power Distribution Sector Investment Plan (2008-2017)

51. The financing plan (Table A5.1) is a combination of funds from DISCOs, ADB, and other financiers. It was agreed that DISCOs would provide at least 20% from their own resources and that ADB could fund up to 80% of the total amount for each tranche.

Table A5.1: Overall Financing Plan (\$ million)

	Investment	Projects	Program	Program Support		
Source	Amount	Share (%)	Amount	Share (%)		
ADB	OCR 800	15	ADF 10.0	80		
Other Financiers	2,400	46	0.0	0.0		
DISCOs	2,043	39	2.5	20		
Total	5,243	100	12.5	100		

ADB = Asian Development Bank, ADF = Asian Development Fund, DISCO = distribution company.

Tranche-1 and Support Project Financing Plan

52. The cost of the subprojects identified under Tranche-1 is estimated at 2007 current prices to be \$327 million (including the Support Project). The Government and DISCOs requested ADB to finance \$252 million, which is approximately 77% of the total project cost for Tranche-1 and the Support Project. The remaining portion will be met by DISCOs' internally generated funds.

Loan 2438-PAK (OCR) in US\$

LUAII Z430-F AF	v (OCN) iii OSĢ
	OCR Loan
FESCO	23,290,000.00
GEPCO	11,370,000.00
HESCO	39,630,000.00
IESCO	30,060,000.00
LESCO	39,060,000.00
MEPCO	20,140,000.00
PESCO	36,600,000.00
QESCO	27,850,000.00
Interest Charges	14,000,000.00
	242,000,000.00

Loan 2439-PAK (ADF) in US\$ Equivalent

	ADF Loan
PEPCO	10,000,000.00

Tranche-2 Financing Plan

53. The cost estimates of the subprojects identified under Tranche-2 amount to \$302 million inclusive of duties and taxes, as per details given in Table A5.2 below:

Table A5.2: Investment Plan (\$ million)

DISCO	Project Cost
FESCO	28.87
GEPCO	57.08
HESCO	38.75
IESCO	30.15
LESCO	35.70
MEPCO	46.36
PESCO	35.84
QESCO	28.81
TOTAL	302

54. The Government has requested ADB to finance \$242 million (80%) from ADB's OCR. DISCOs will finance the remaining \$60 million from internally generated funds (Table A5.3). The loan will have a 20-year term, including a grace period of 3 years, an interst rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the loan and project agreements. The Government provided ADB with (i) the reasons for its decision to borrow ADB's LIBOR-based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

Table A5.3: Financing Plan (\$ million)

Source	Amount	%
Asian Development Bank	242	80
Distribution Companies	60	20
Total	302	100

Sorces: pakistan Electric Power company and DISCOs estimates.

Tranche-1,2 and Support Project Disbursement Arrangements for ADB Financing

55. **Tranche-1,2 (OCR)** – All loan disbursements will be carried out in accordance with ADB's Loan Disbursement Handbook (2007, as amended from time to time). Detailed procedures are described in the Disbursement Letter issued by ADB. Each DISCO will establish an imprest account for its share of loan/financing no later than 31 March 2009 for Tranche-1, and no later than (Insert date) for Tranche-2. Statement of Expenditure (SOE) procedure may

be used to reimburse or liquidate the imprest account advances for individual eligible expenditures related individual payments under \$100,000.

56. **Loan 2439-PAK (ADF)** – All loan disbursements will be carried out in accordance with ADB's Loan Disbursement Handbook. Detailed procedures are described in the Disbursement Letter issued by ADB. PEPCO will establish an imprest account. Statement of Expenditure (SOE) procedure may be used to reimburse or liquidate the imprest account advances for individual eligible expenditures related payments under \$50,000.

Loan Allocation Tables

	,	ALLOCATION A	AND WITHDRA	WAL OF LOAN	N PROCEEDS		
(P	ower Distribut	ion Enhancem	ent Investment	Program – Tr	anche 1, Inves	stment Project) ADB FINANCING	
		CA	TEGORY			BASIS	
		Tot	al Amount Allocate	ed for ADB Finan	cing		
		Orig	ginal	Prop	osed	Percentage of ADB Financing from the	
Number	Item	(:	\$)	(\$)	Loan Account	
		Category	Subcategory	Category	Subcategory		
1	FESCO	23,290,000		23,290,000			
1A	Civil Works		1,800,000		1,800,000	100 percent of total invoice*	
1B	Equipment		18,390,000		21,490,000	100 percent of total invoice*	
1C	Consulting (engineering)		600,000		0	100 percent of total invoice*	
1D	Unallocated		2,500,000		0		
2	GEPCO	11,370,000		11,370,000			
2A	Civil Works		800,000		800,000	100 percent of total invoice*	
2B	Equipment		8,870,000		10,570,000	100 percent of total invoice*	
2C	Consulting (engineering)		200,000		0	100 percent of total invoice*	
2D	Turnkey		100,000		0	100 percent of total invoice*	
2E	Unallocated		1,400,000		0		
3	HESCO	39,630,000		25,393,000			
ЗА	Civil Works		900,000		200,000	100 percent of total invoice*	
3B	Equipment		34,630,000		25,193,000	100 percent of total invoice*	
3C	Consulting (engineering)		1,000,000		0	100 percent of total invoice*	
3D	Unallocated		3,100,000		0		
4	IESCO	30,060,000		30,060,000			
4A	Civil Works		2,600,000		2,600,000	100 percent of total invoice*	

4B	Equipment		22,760,000		27,460,000	100 percent of total invoice*
4C	Consulting (engineering)		900,000		0	100 percent of total invoice*
4D	Unallocated		3,800,000		0	
5	LESCO	39,060,000		39,060,000		
5A	Civil Works		3,300,000		1,500,000	100 percent of total invoice*
5B	Equipment		28,260,000		37,560,000	100 percent of total invoice*
5C	Consulting (engineering)		1,100,000		0	100 percent of total invoice*
5D	Turnkey		1,800,000		0	100 percent of total invoice*
5E	Unallocated		4,600,000		0	
6	MEPCO	20,140,000		20,140,000		
6A	Civil Works		1,800,000		1,800,000	100 percent of total invoice*
6B	Equipment		12,780,000		15,590,000	100 percent of total invoice*
6C	Power Lines		300,000		300,000	100 percent of total invoice*
6D	Consulting (engineering)		400,000		0	100 percent of total invoice*
6E	Turnkey		2,700,000		2,450,000	100 percent of total invoice*
6F	Unallocated		2,160,000		0	
7	PESCO	36,600,000		36,600,000		
7A	Civil Works		2,700,000		1,800,000	100 percent of total invoice*
7B	Equipment		28,400,000		34,200,000	100 percent of total invoice*
7C	Power Lines		600,000		600,000	100 percent of total invoice*
7D	Consulting (engineering)		700,000		0	100 percent of total invoice*
7E	Unallocated		4,200,000		0	
8	QESCO	27,850,000		27,850,000		
8A	Civil Works		1,900,000		1,800,000	100 percent of total invoice*
8B	Equipment		19,340,000		25,250,000	100 percent of total invoice*
8C	Power Lines		800,000		800,000	100 percent of total invoice*
8D	Consulting (engineering)		500,000		0	100 percent of total invoice*
8E	Turnkey		2,100,000		0	100 percent of total invoice*
8F	Unallocated		3,210,000		0	
9	Interest and Commitment Charges	14,000,000		14,000,000		100 percent of amount due
	Total	242,000,000		227,763,000		

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS – Loan 2439-PAK (ADF) (Power Distribution Enhancement Investment Program, Support Project)

	CATEGOR	Υ		ADB FINANCING BASIS
Number	ltem		nt Allocated for ancing SDR	Percentage of ADB Financing from the Loan Account
		Category	Subcategory	
1	Consulting Services	6,009,000		
1A	Implementation		3,557,000	100 percent of total expenditure claimed
1B	Preparation		613,000	100 percent of total expenditure claimed
1C	Monitoring		613,000	100 percent of total expenditure claimed
1D	Capacity Building		1,226,000	100 percent of total expenditure claimed
2	Unallocated	123,000		
	Total	6,132,000		

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Power Distribution Enhancement Investment Program – Tranche-2, Investment Project)

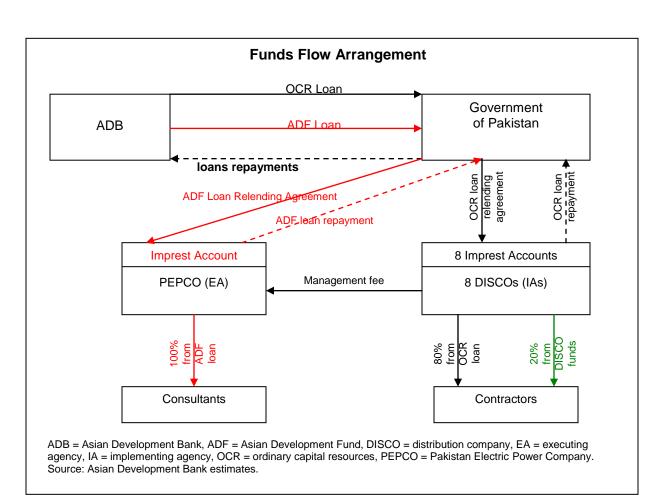
	CATE	EGORY		ADB FINANCING BASIS
	_		t Allocated for ancing (\$)	Percentage of ADB Financing
Number	Item	Category	Subcategory	from the Loan Account
1	FESCO	19,230,000		
1A	Equipment and Materials		17,900,000	100 percent of total expenditure claimed*
1C	Unallocated		1,330,000	
2	GEPCO	46,100,000		
2A	Turnkey		39,250,000	100 percent of total expenditure claimed*
2B	Equipment and Materials		4,800,000	100 percent of total expenditure claimed*
2C	Unallocated		2,050,000	
3	HESCO	32,350,000		
ЗА	Turnkey		29,980,000	100 percent of total expenditure claimed*
3B	Equipment and Materials		900,000	100 percent of total expenditure claimed*
3C	Unallocated		1,470,000	
4	IESCO	23,560,000		
4A	Turnkey		11,080,000	100 percent of total expenditure claimed*
4B	Equipment and Materials		11,480,000	100 percent of total expenditure claimed*
4C	Unallocated		1,000,000	
5	LESCO	27,180,000		
5A	Turnkey		12,250,000	100 percent of total expenditure claimed*
5B	Equipment and Materials		13,580,000	100 percent of total expenditure claimed*
5C	Unallocated		1,350,000	
6	MEPCO	36,070,000		

6A	Turnkey		17,120,000	100 percent of total expenditure claimed
6B	Equipment and Materials		17,350,000	100 percent of total expenditure claimed
6C	Unallocated		1,600,000	
7	PESCO	25,270,000		
7A	Turnkey		6,800,000	100 percent of total expenditure claimed*
7B	Equipment and Materials		16,960,000	100 percent of total expenditure claimed*
7C	Unallocated		1,510,000	
8	QESCO	19,760,000		
8A	Equipment and Materials		18,560,000	100 percent of total expenditure claimed*
8B	Unallocated		1,200,000	
9	Interest and Commitment Charges	12,480,000		100 percent of amount due
	Total	242,000,000		

^{*} Exclusive of taxes and duties imposed within the territory of the Borrower.

5.3 Government (DISCO) Financing and Funds Flow

- 57. ADB Loan funds which will be relent from the Government to the DISCOs will finance up to 80% of the Tranche-1 and Tranche-2 investment cost and the DISCO will finance the remaining amount (approximately 20%) of the total investment cost through self-generated funds. The DISCOs will repay the Government the loaned funds in accordance with the Relending Agreements that each DISCO will execute with the Government. The Government will repay ADB the loan in accordance with the amortization schedules set in the respective Loan Agreements. The closing dates of withdrawals from the Loan Account are 30 June 2012 for Tranche-1 and (Insert date) for Tranche-2.
- 58. ADB Loan 2439-PAK funds which will be relent from the Government to PEPCO will finance up to 100% of the consultant service costs under the Support Project. PEPCO will repay the Government the loaned funds in accordance with the Relending Agreement that it will execute with the Government. In accordance with the legal agreements DISCOs will be responsible for paying a management fee to PEPCO for providing the coordination and management support to the implement the investment projects under the MFF. The management fee will enable PEPCO to repay the loan to the Government. The Government will repay ADB the loan in accordance with the amortization schedule set in the Loan Agreement. The closing date of withdrawals from the Loan Account is 31 December 2018.



6.1 Detailed Cost Estimates

Table A6.1: Tranche-1 and Support Project Financing Plan (\$ million)

	Asian Deve	•			Asian Deve	•		
Expenditure Accounts by Financiers	Bank I	MFF %	Pakis Amount	tan %	Bank /	ADF %	Tot Amount	al %
I. Investment Costs								
A. Subprojects								
Equipment - Secondary transmission grid	90.7	80.0	22.7	20.0	0.0	0.0	113.3	34.7
Equipment - Energy loss reduction	42.8	80.0	10.7	20.0	0.0	0.0	53.5	16.4
Equipment - Capacitors	18.2	80.0	4.5	20.0	0.0	0.0	22.7	6.9
Equipment - Distribution of power	27.7	80.0	6.9	20.0	0.0	0.0	34.6	10.6
Equipment - Rehabilitation	6.1	80.0	1.5	20.0	0.0	0.0	7.6	2.3
Equipment - System modernization	9.3	80.0	2.3	20.0	0.0	0.0	11.6	3.5
Civil works	18.2	80.0	4.5	20.0	0.0	0.0	22.7	7.0
Power lines	1.9	80.0	0.5	20.0	0.0	0.0	2.3	0.7
Engineering	6.1	80.0	1.5	20.0	0.0	0.0	7.6	2.3
Overheads (administration costs, audit, inspection, LC opening, and local transportation)	0.0	0.0	16.6	100.0	0.0	0.0	16.6	5.1
Environmental mitigation	0.0	0.0	0.1	100.0	0.0	0.0	0.1	0.0
Resettlement	0.0	0.0	0.9	100.0	0.0	0.0	0.9	0.3
Turnkey	7.4	80.0	1.8	20.0	0.0	0.0	9.2	2.8
Subtotal (A1)	228.2	75.3	74.7	24.7	0.0	0.0	302.9	92.7
B. Project Management and Support	0.0	0.0	0.0	0.0	9.8	100.0	9.8	3.0
Total Project Costs	228.2	73.0	74.7	23.9	9.8	3.1	312.7	95.7
Interest During Implementation	13.4	98.7	0.0	0.0	0.2	1.3	13.5	4.1
Commitment Charges	0.6	100.0	0.0	0.0	0.0	0.0	0.6	0.2
Total	242.2	74.1	74.7	22.8	10.0	3.1	326.8	100.0

ADF = Asian Development Fund, MFF = multitranche financing facility.

Sources: Asian Development Bank and project preparatory technical assistance consultant estimates.

Table A6.2: Tranche-1 and Support Project Financing Plan (DISCOs and PEPCO)

		PRs				
		Million			\$ Million	
Item	Local	Foreign	Total	Local	Foreign	Total
A. Subprojects						
1. Secondary Transmission Grid						
LESCO	2,063.5	273.3	2,336.8	34.4	4.6	38.9
IESCO	1,847.9	94.4	1,942.3	30.8	1.6	32.4
GEPCO	239.1	35.9	275.1	4.0	0.6	4.6
MEPCO	487.6	417.5	905.1	8.1	7.0	15.1
PESCO	961.7	197.7	1,159.4	16.0	3.3	19.3
QESCO	693.9	200.9	894.7	11.6	3.3	14.9
FESCO	764.9	301.6	1,066.5	12.7	5.0	17.8
HESCO	589.3	117.3	706.6	9.8	2.0	11.8
Subtotal (A1)	7,648.0	1,638.5	9,286.5	127.5	27.3	154.8
2. Energy Loss Reduction						
GEPCO	248.9	0.0	248.9	4.1	0.0	4.1
MEPCO	456.0	0.0	456.0	7.6	0.0	7.6
QESCO	362.2	0.0	362.2	6.0	0.0	6.0
HESCO	290.8	1,630.4	1,921.1	4.8	27.2	32.0
Subtotal (A2)	1,357.8	1,630.4	2,988.2	22.6	27.2	49.8
3. Capacitors						
LESCO	67.5	174.9	242.4	1.1	2.9	4.0
IESCO	31.0	99.6	130.6	0.5	1.7	2.2
MEPCO	33.9	51.1	85.0	0.6	0.9	1.4
PESCO	71.7	119.5	191.2	1.2	2.0	3.2
QESCO	35.3	57.9	93.2	0.6	1.0	1.6
FESCO	188.3	283.4	471.6	3.1	4.7	7.9
HESCO	78.1	119.8	197.9	1.3	2.0	3.3
Subtotal (A3)	505.8	906.2	1,411.9	8.4	15.1	23.5

4. Other Equipment						
LESCO	156.7	121.8	278.5	2.6	2.0	4.6
IESCO	90.6	0.0	90.6	1.5	0.0	1.5
PESCO	57.7	0.0	57.7	1.0	0.0	1.0
QESCO	40.4	0.0	40.4	0.7	0.0	0.7
FESCO	171.4	0.0	171.4	2.9	0.0	2.9
Subtotal (A4)	516.7	121.8	638.5	8.6	2.0	10.6
5. Distribution of Power						
GEPCO	248.8	0.0	248.8	4.1	0.0	4.1
PESCO	1,080.1	0.0	1,080.1	18.0	0.0	18.0
QESCO	498.1	0.0	498.1	8.3	0.0	8.3
Subtotal (A5)	1,827.0	0.0	1,827.0	30.5	0.0	30.5
Subtotal (A) B. Project Management and Support	11,855.3	4,296.9	16,152.1	197.6	71.6	269.2
PEPCO	147.5	442.5	590.0	2.5	7.4	9.8
Subtotal (A+B)	12,002.8	4,739.4	16,742.1	200.0	79.0	279.0
Physical Contingencies	592.8	214.8	807.6	9.9	3.6	13.5
Price Contingencies	1,141.6	70.8	1,212.4	19.0	1.2	20.2
Interest During Implementation	0.0	812.6	812.6	0.0	13.5	13.5
Commitment Charges	0.0	35.3	35.3	0.0	0.6	0.6
Total	13,737.1	5,872.9	19,610.0	229.0	97.9	326.8

FESCO = Faisalabad Electric Supply Company, GEPCO = Gujranwala Electric Power Company, HESCO = Hyderabad Electric Supply Company, IESCO = Islamabad Electric Supply Company, LESCO = Lahore Electric Supply Company, MEPCO = Multan Electric Power Company, PEPCO = Pakistan Electric Power Company, PESCO = Peshawar Electric Supply Company, QESCO = Quetta Electric Supply Company.

Sources: Asian Development Bank and project preparatory technical assistance consultants' estimates.

Table A6.3: Tranche-2 Financing Plan

Item	FESCO	GEPCO	HESCO	IESCO	LESCO	MEPCO	PESCO	QESCO	TOTAL
A. Base Cost									
A.1. Turnkey	0.00	39.25	29.98	11.08	12.25	17.12	6.80	0.00	116.48
A.2: Equipment	17.90	4.80	0.90	11.48	13.58	17.35	16.96	18.56	101.53
A.3. Civil Works	5.38	1.45	0.00	2.10	3.43	3.44	5.03	4.87	25.70
A.4. Engineering	0.93	0.35	0.00	0.36	0.59	0.59	0.87	0.89	4.60
A.5. EM/LAR	0.00	2.89	2.17	0.55	0.31	0.70	0.58	0.00	7.19
A.6. Administration/Audit/Inspection	1.17	2.15	1.45	1.20	1.58	1.79	1.40	1.16	11.89
A.7. Transportation/Insurance/LC	1.17	1.83	1.22	1.12	1.23	1.81	1.39	1.15	10.91
A.8. Duties and Taxes	0.05	0.51	0.30	0.41	0.28	0.55	0.15	0.09	2.34
Subtotal (A)	26.60	53.22	36.02	28.29	33.25	43.35	33.19	26.71	280.63
B. Contingencies									
B.1. Physical Contingencies	0.66	1.00	0.73	0.50	0.67	0.80	0.76	0.60	5.72
B.2. Price Contingencies	0.66	1.05	0.74	0.50	0.68	0.80	0.75	0.60	5.78
Subtotal (B)	1.33	2.05	1.47	1.00	1.35	1.60	1.51	1.20	11.51
C. Financing Charges During Implen	nentation								
C.1. Interest During Implentation	0.88	1.70	1.18	0.80	1.03	1.32	1.07	0.85	8.84
C.2. Commitment Charges	0.06	0.11	80.0	0.05	0.07	0.09	0.07	0.06	0.58
Subtotal (C)	0.94	1.81	1.26	0.85	1.10	1.41	1.14	0.90	9.42 0.00
Total Project Cost (A+B+C)	28.87	57.08	38.75	30.15	35.70	46.36	35.84	28.81	301.55

6.2 Forecast of Cost to Complete [Each DISCO will have to workout the most recent forecast considering the Gantt implementation chart]

Pakistan

Distribution Enhancement Project

Project Components by Year Base Costs		Base Cost (Lo	cai wiiiion)		D	ase Cost (L	133 MIIIIOII	<u> </u>
	2008	2009	2010	Total	2008	2009	2010	Total
A. Subprojects								
Secondary Transmission Grid								
LESCO	934.7	934.7	467.4	2,336.8	15.6	15.6	7.8	38.9
IESCO	776.9	776.9	388.5	1,942.3	12.9	12.9	6.5	32.4
GEPCO	110.0	110.0	55.0	275.1	1.8	1.8	0.9	4.6
MEPCO	362.0	362.0	181.0	905.1	6.0	6.0	3.0	15.1
PESCO	463.8	463.8	231.9	1,159.4	7.7	7.7	3.9	19.3
QESCO	357.9	357.9	178.9	894.7	6.0	6.0	3.0	14.9
FESCO	426.6	426.6	213.3	1,066.5	7.1	7.1	3.6	17.8
HESCO	282.6	282.6	141.3	706.6	4.7	4.7	2.4	11.8
Subtotal Secondary Transmission Grid	3,714.6	3,714.6	1,857.3	9,286.5	61.9	61.9	31.0	154.8
2. Energy Loss Reduction								
GEPCO	99.6	99.6	49.8	248.9	1.7	1.7	0.8	4.1
MEPCO	182.4	182.4	91.2	456.0	3.0	3.0	1.5	7.6
QESCO	144.9	144.9	72.4	362.2	2.4	2.4	1.2	6.0
HESCO	768.4	768.4	384.2	1,921.1	12.8	12.8	6.4	32.0
Subtotal Energy Loss Reduction	1,195.3	1,195.3	597.6	2,988.2	19.9	19.9	10.0	49.8
3. Capacitors	•	•		•				
LESCO	96.9	96.9	48.5	242.4	1.6	1.6	0.8	4.0
IESCO	52.2	52.2	26.1	130.6	0.9	0.9	0.4	2.2
MEPCO	34.0	34.0	17.0	85.0	0.6	0.6	0.3	1.4
PESCO	76.5	76.5	38.2	191.2	1.3	1.3	0.6	3.2
QESCO	37.3	37.3	18.6	93.2	0.6	0.6	0.3	1.6
FESCO	188.7	188.7	94.3	471.6	3.1	3.1	1.6	7.9
HESCO	79.1	79.1	39.6	197.9	1.3	1.3	0.7	3.3
Subtotal Capacitors	564.8	564.8	282.4	1,411.9	9.4	9.4	4.7	23.5
4. Other Equipment								
LESCO	111.4	111.4	55.7	278.5	1.9	1.9	0.9	4.6
IESCO	36.2	36.2	18.1	90.6	0.6	0.6	0.3	1.5
PESCO	23.1	23.1	11.5	57.7	0.4	0.4	0.2	1.0
QESCO	16.1	16.1	8.1	40.4	0.3	0.3	0.1	0.7
FESCO	68.5	68.5	34.3	171.4	1.1	1.1	0.6	2.9
Subtotal Other Equipment	255.4	255.4	127.7	638.5	4.3	4.3	2.1	10.6
5. Distribution of Power								
GEPCO	99.5	99.5	49.8	248.8	1.7	1.7	0.8	4.1
PESCO	432.0	432.0	216.0	1,080.1	7.2	7.2	3.6	18.0
QESCO	199.2	199.2	99.6	498.1	3.3	3.3	1.7	8.3
Subtotal Distribution of Power	730.8	730.8	365.4	1,827.0	12.2	12.2	6.1	30.5
Subtotal Subprojects	6,460.8	6,460.8	3,230.4	16,152.1	107.7	107.7	53.8	269.2
B. Project Management and Support	295.0	295.0	-	590.0	4.9	4.9	-	9.8
Total BASELINE COSTS	6,755.8	6,755.8	3,230.4	16,742.1	112.6	112.6	53.8	279.0
Physical Contingencies	323.0	323.0	161.5	807.6	5.4	5.4	2.7	13.5
Price Contingencies	180.9	554.8	476.7	1,212.4	3.0	9.2	7.9	20.2
Total PROJECT COSTS	7,259.8	7,633.6	3,868.6	18,762.1	121.0	127.2	64.5	312.7
Taxes	380.4	398.6	209.0	987.9	6.3	6.6	3.5	16.5

Pakistan
Distribution Enhancement Project

Project Components by Year -- Totals Including Contin

(US\$ Million) **Totals Including Contingencies** 2008 2009 2010 Total A. Subprojects 1. Secondary Transmission Grid 16.9 17.9 9.5 44.3 **LESCO IESCO** 14.1 15.0 8.0 37.0 **GEPCO** 2.0 2.1 1.1 5.2 **MEPCO** 6.5 6.7 3.5 16.7 **PESCO** 8.4 8.9 4.7 21.9 **QESCO** 6.4 6.8 3.6 16.8 **FESCO** 7.7 8.1 4.2 20.0 **HESCO** 2.9 5.1 5.4 13.4 **Subtotal Secondary Transmission Grid** 66.9 70.9 37.6 175.4 2. Energy Loss Reduction **GEPCO** 1.8 1.9 1.0 4.8 **MEPCO** 3.3 3.5 1.9 8.7 **QESCO** 2.6 2.8 1.5 6.9 **HESCO** 13.6 13.8 7.0 34.4 22.1 11.4 **Subtotal Energy Loss Reduction** 21.3 54.8 3. Capacitors LESCO 1.7 1.8 0.9 4.4 **IESCO** 0.9 0.5 2.4 0.9 **MEPCO** 0.6 0.3 1.6 0.6 **PESCO** 1.4 1.4 0.7 3.5 **QESCO** 0.7 0.7 1.7 0.4 **FESCO** 3.4 3.5 1.8 8.6 **HESCO** 1.4 1.5 8.0 3.6 10.0 **Subtotal Capacitors** 10.3 5.3 25.7 4. Other Equipment **LESCO** 2.0 2.1 5.2 1.1 **IESCO** 0.7 0.7 0.4 1.7 **PESCO** 0.4 0.4 0.2 1.1 **QESCO** 0.3 0.3 0.2 8.0 **FESCO** 1.2 1.3 0.7 3.3 **Subtotal Other Equipment** 4.6 4.9 2.6 12.0 5. Distribution of Power **GEPCO** 1.8 1.9 1.0 4.8 7.8 **PESCO** 8.4 4.5 20.7 **QESCO** 3.6 3.9 2.1 9.5 14.2 35.0 **Subtotal Distribution of Power** 13.2 7.6 **Subtotal Subprojects** 116.1 122.3 64.5 302.9 B. Project Management and Support 4.9 4.9 9.8 **Total PROJECT COSTS** 121.0 127.2 64.5 312.7

Annex 7: Execution Plan

7.1 Work Breakdown Structure (WBS)

59. WBS provides the basis for preparing the Implementation schedule or the Gantt Chart. The proposed WBS for this Investment Program will have a three-level structure as follows:

Level-1

Tranche Number

Level-2

- Pre-startup stage
- PEPCO
- DISCO

Level-3

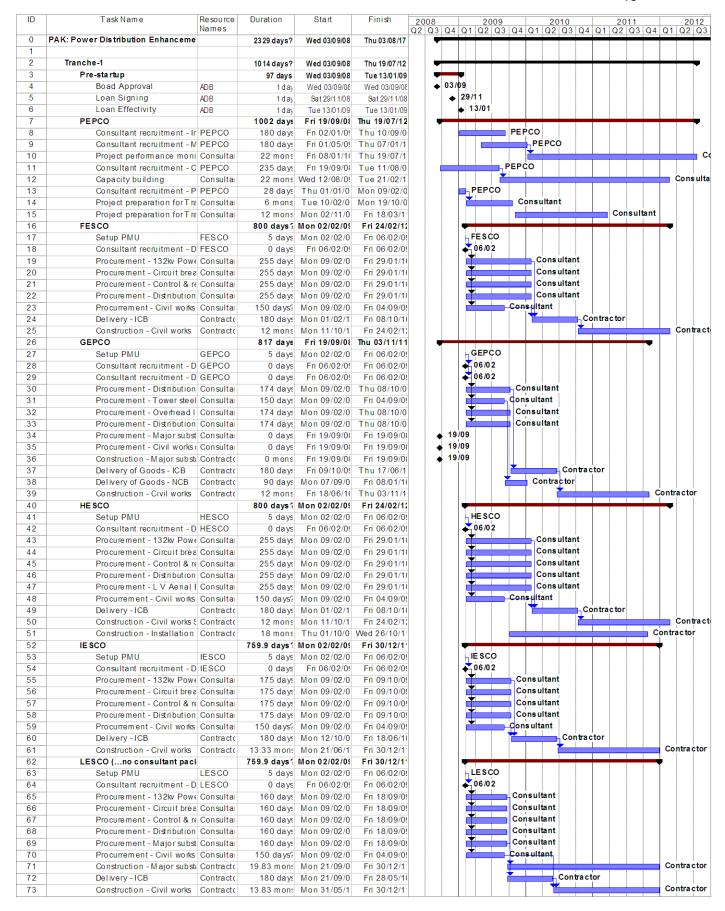
- Grouping of activities/tasks
- 60. It is up to each DISCO and PEPCO to determine whether a more detailed level of activity break down is required. If so, then Level-4 breakdown should be thought through and built in to the WBS.
- 61. ADB recommends PEPCO take the initial leadership in setting up a central level Implementation schedule and gradually to transfer the responsibility of maintaining it to the DISCO over time. The Implementation schedule or the Gantt chart of the Investment Program is best prepared using the MS Project or equivalent software.

7.2 Responsibility Allocation by Activity

62. The responsibility assignment by activity is shown in the Implementation schedule shown in the MS Project Gantt chart – see column "Resource Name".

7.3 Project Implementation Schedule (Gantt Chart) Tranche-1

- 63. The Implementation schedule shown below is based on information provided by PEPCO and the DISCOs during the Inception mission.
- 64. Notwithstanding, Tranche-1 Loan agreement stipulates that the estimated project completion date is 31 December 2011. Therefore, unless otherwise amended, the Loan agreement will prevail over this FAM.



ID	0		Resource Names	Duration	Start	Finish	2008	2009	2010 4 Q1 Q2 Q3 0	2011
73	_	Construction - Civil works	Contracto	13.83 mon:	Mon 31/05/1	Fri 30/12/1	Q2 Q3 Q7	Q 1 Q2 Q3 Q	7 41 42 45	
74		MEPCO		756 days?	Mon 02/02/09	Mon 26/12/11		+++		
75	==	Setup PMU	MEPCO	5 days	Mon 02/02/0	Fri 06/02/09	g	MEPCO		
76	_	Consultant recruitment - D	MEPCO	0 days	Fri 06/02/09	Fri 06/02/09	g	06/02	,	
77		Procurement - 132kv Powe		255 days	Mon 09/02/0	Fri 29/01/10		1	Consultant	
'8		Procurement - Circuit breε		255 days	Mon 09/02/0	Fri 29/01/10		-	Consultant	
79		Procurement - Control & re		255 days	Mon 09/02/0	Fri 29/01/10		¥	Consultant	
30		Procurement - Distribution		255 days	Mon 09/02/0	Fri 29/01/10		 	Consultant	
31		Procurement - Tower steel		150 days?	Mon 09/02/0	Fri 04/09/09		₹ Co	nsultant	
32		Procurement - Overhead I		255 days	Mon 09/02/0		_	¥	Consultant	
33		Procurement - Major subst		255 days	Mon 09/02/0	Fri 29/01/10	_	\	Consultant	
4		Procurement - Civil works		150 days?	Mon 09/02/0	Fri 04/09/09		₩cc	nsultant	
35		Construction - Major subst		12 mons	Mon 01/02/1	Fri 17/06/1				Contr
36		Delivery - ICB	Contracto	180 days	Mon 01/02/1	Fri 08/10/10	(Contractor
37		Safeguards - LARP	MEPCO	180 days	Tue 01/12/0		_	-		EPCO
38	-	Construction - Civil works	Contracto	12 mons	Tue 10/08/1	Mon 26/12/1	_			
39		PE SCO	Contracte		Mon 02/02/09		_			
90		Setup PMU	PESCO	5 days	Mon 02/02/0	Fri 06/02/09		PESCO		
1		Consultant recruitment - D		0 days	Fri 06/02/0!	Fri 06/02/09	_	06/02		
2	-	Procurement - 132kv Powe		255 days	Mon 09/02/0	Fri 29/01/10	_ : : :	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Consultant	
3	-	Procurement - Circuit brea		255 day:	Mon 09/02/0	Fri 29/01/10	_	4	Consultant	
4	-	Procurement - Control & re		255 day:	Mon 09/02/0	Fri 29/01/10		4	Consultant	
5	-	Procurement - Distribution		255 day:	Mon 09/02/0	Fri 29/01/10		4	Consultant	
6	-	Procurement - Tower steel		150 days?	Mon 09/02/0	Fri 04/09/09	_	- Cc	nsultant	
7	-	Procurement - Overhead I		255 days	Mon 09/02/0	Fri 29/01/10		 	Consultant	
98	-	Procurement - Distribution		255 day:	Mon 09/02/0	Fri 29/01/10		 	Consultant	
9	-	Procurement - Civil works		150 days?	Mon 09/02/0	Fri 04/09/09		↓	onsultant	
00	-	Delivery - ICB	Contracto	180 days?	Mon 01/02/1	Fri 08/10/10			1 4 1 1 1	Contractor
01		Safeguards - LARP	PESCO	30 days	Fri 01/05/09			PESC		
02		Construction - Civil works	Contracto	12 mons	Mon 11/10/1	Fri 24/02/12			- I	
02		QESCO	Contracte		Mon 02/02/09					
04		Setup PMU	QESCO	5 days	Mon 02/02/0	Fri 06/02/09		QESCO		
05		Consultant recruitment - D		0 days	Fri 06/02/0!	Fri 06/02/09		06/02		
06		Procurement - 132kv Powe		255 days	Mon 09/02/0	Fri 29/01/10		Y LOSE	Consultant	
)7		Procurement - Circuit brea		255 day:	Mon 09/02/0	Fri 29/01/10		-	Consultant	
08		Procurement - Control & re		255 day:	Mon 09/02/0	Fri 29/01/10		 	Consultant	
)6)9		Procurement - Distribution		255 day:	Mon 09/02/0	Fri 29/01/10		+	Consultant	
10		Procurement - Distribution		255 days	Mon 09/02/0	Fri 04/09/09		+	onsultant	
11		Procurement - Overhead I		255 days	Mon 09/02/0	Fri 29/01/10		4	Consultant	
12		Procurement - Distribution		255 day:	Mon 09/02/0	Fri 29/01/10	_	 	Consultant	
13	-	Procurement - Major subst		255 day:	Mon 09/02/0	Fri 29/01/10	_	*	Consultant	
14		Procurement - Civil works		150 days?	Mon 09/02/0	Fri 04/09/09	_	₩	nsultant	
15		Delivery - ICB	Contracto	180 days?	Mon 01/02/1	Fri 08/10/10			1 4 1	Contractor
16		Safeguards - LARP	QESCO	180 day:	Mon 09/02/0	Fri 16/10/09	_	4 ,	QESCO	
7	-	Construction - Major subst		12 mons	Mon 11/10/1	Fri 24/02/12				
17	-	Construction - Major substi				Fri 24/02/12	_			7
		Construction - Civil Works	Contractc	12 mons	Mon 11/10/1	FII 24/02/12				
19 20		MFF Tranche 2		1000 -1	M 04 (00 '00	F-104/01/11				
21	-			1220 days	Mon 01/06/09	Fri 31/01/14	-			
		Project Processing	DEDOO	240 days	Mon 01/06/09	Fri 30/04/10	- 1 1		PEPCO	
22		Preparation of Subproject		90 days	Mbn 01/06/09	Fri 02/10/09			PEPCO	
23	##	Preparation & Submission		65 days	Mon 02/11/09	Fri 29/01/10	- 1 1		ADB	
	1	PFR Processing & Tranche	ADB	65 days	Mon 01/02/10	Fri 30/04/10			ADB	

7.3 Project Implementation Schedule Tranche-2

	Respon	sibility	Υ	'ear	201	0	١	'ear	201	1	Υ	ear	201	2	Υ	'ear	201	3	Υ	ear	201	4	Υ	ear	201	5
	1	2	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Loan Processing																										
Loan Negotiation	ADB	EAD																								
Tranche-2 Approval	ADB																									
Loan Signing	ADB	EAD																								
Loan Effectivity	ADB																									
Procurement																										-
Prepare Bid Docs	PEPCO	DISCO																								Г
Tender & Evaluation	PEPCO	DISCO																								
Award of Contracts	PEPCO	DISCO																								
Construction																										
Delivery of Equipment	Contractor																								_	┢
Constn & Installation	Contractor		 																							H
Test & Commission	Contractor																									
Loan closing	ADB	PEPCO																								

7.4 Annual Operational Plan for Tranche-1& Tranche-2

65. This should be completed by each DISCO considering: (i) Procurement plan, (ii) Implementation schedule, and (iii) Forecast Cost-to-complete. It is recommended that the outputs 2 and 3 described in the box below are provided at best monthly and at minimum quarterly.

Expected Outputs: (To be finalized during Inception mission)

- 1. Planned work program and project activities for the year
- 2. Projected contract awards
- 3. Projected disbursements (ADB, Government and Other sources)
- 4. Updated Project activity schedule (Grant Chart)

Annex 8: Performance Monitoring and Evaluation

8.1 Deliverables for Tranche-1

Note: In accordance with the legal agreements, Tranche-1 subprojects are scheduled for completion by 31 December 2011.

Ref.	Subproject Name	Capital (US\$)	Remarks
FESCO	0.70		
	STG subprojects (13 deliverables): 26MVA transformer extension – Kud Lathi 26MVA transformer extension – Jhang II 26MVA transformer extension – Gojra Additional transformer bay 26MVA transformer extension – Sadar Pur Noon 26MVA transformer extension – Wanbachran 26MVA transformer extension – Lalian 26-40MVA augmentation – Old Thermal Faisalabad 26-40MVA augmentation – Chiniot Road Faisalabad 26-40MVA augmentation – Sammandari Road Faisalabad 26-40MVA augmentation – Narwala Road Faisalabad 26-40MVA augmentation – Factory Area Faisalabad	1.98 1.80 1.43 0.17 1.43 1.98 1.43 1.51 1.51 1.51	
	13-26MVA augmentation – Ludewala	1.07	
	Non-STG subprojects (deliverables): Installation of Capacitors – 132kV & 11kV capacitors Modernization – Construction Equipment Modernization – Automated Meter Reading Modernization – Computerized Accounting System Rehabilitation – Replace time expired/technically inadequate substation equipment		
GEPCO			
	<u>STG subprojects (1 deliverable):</u> Upgrade (Conversion) from 66kV to 132kV – Fatehpur	5.49	Fatepur is already completed. Pending ADB's approval for retroactive financing
	Non-STG subprojects (deliverables): Energy Loss Reduction – Reconductoring, and reconfiguring networks (17 11kV feeders and 184 LT works) Distribution of Power – 11kV / LV extensions, distribution substations (4 11kV feeders and 325 LT works)		
HESCO			
	STG subprojects (10 deliverables): 13-26MVA augmentation – Jaccobabad 6-13MVA augmentation – Nabisar 13-26MVA augmentation – Gambat 13-26MVA augmentation – T A Yar 13-26MVA augmentation – T Adam 13-26MVA augmentation – Sukkur Site 13-26MVA augmentation – Deharki 13MVA transformer extension – Badin 13MVA transformer extension – Thari Mirwah 13MVA transformer extension – Dokri	1.07 0.93 1.07 1.07 1.07 1.07 1.07 1.10 1.10	
	Non-STG subprojects (deliverables): Energy Loss Reduction – Reconductoring, and reconfiguring networks Installation of Capacitors – 132kV & 11kV capacitors Rehabilitation – Replace time expired/technically inadequate substation equipment		
IESCO			
	STG subprojects (25 deliverables): 13-40MVA augmentation – H-11 Islamabad 26-40MVA augmentation – Chakwal	1.51 1.51	

26-40MVA augmentation – KTM	1.51
13-26MVA augmentation – Rawalkot	1.07
13-40MVA augmentation – F-11 Islamabad	1.51
2 x 26-40MVA augmentation – Zero Point	3.02
2 x 26-40MVA augmentation – Rawal	3.02
2 x 26-40MVA augmentation – I-8 Islamabad	3.02
26-40MVA augmentation – Pir Wadhai	1.51
13-26MVA augmentation – Kahuta City	1.07
13-26MVA augmentation – Fariqabad	1.07
13-26MVA augmentation – Margalla	1.07
13-26MVA augmentation – Dina	1.07
13-26MVA augmentation – Jatli	1.07
13-26MVA augmentation – Chak Sawari	1.07
13-26MVA augmentation – Attock	1.07
26-40MVA augmentation – Kamalabad	1.51
26-40MVA augmentation – Cant Rawalpindi	1.51
13-26MVA augmentation – Mangla R Bank	1.07
13-26MVA augmentation – Mangla L Bank	1.07
26MVA transformer extension – F-6 T/Shaheed	1.98
13MVA transformer extension – Khoi Ratta	1.17
26MVA transformer extension – Taxila	1.43
26MVA transformer extension – Gujar Khan	1.43
26MVA transformer extension – Mirpur	1.43

Non-STG subprojects (deliverables):
Installation of Capacitors – 132kV & 11kV capacitors
Modernization – Install reclosers & sectionalisers to improve system performance

Rehabilitation – Replace time expired/technically inadequate substation equipment

LESCO

STG subprojects (29 deliverables):	
26MVA transformer extension – Chung	1.43
26MVA transformer extension – Bhai Pheru	1.43
26MVA transformer extension – Bhikki	1.43
26MVA transformer extension – Rustam	1.80
26MVA transformer extension – Shamkey	1.43
13-26MVA augmentation – Wan Radha Ram (Habibabad)	1.07
26-40MVA augmentation – Allama Iqbal Town	1.51
26-40MVA augmentation – Said Pur	1.51
26-40MVA augmentation – Chah Miran	1.51
26-40MVA augmentation – Defence	1.51
13-26MVA augmentation – Ellahabad	1.07
13-26MVA augmentation – Renala Khurd	1.07
26-40MVA augmentation – Fateh Garh	1.45
26-40MVA augmentation – Garden Town	1.45
26-40MVA augmentation – Gulshan-e-Ravi	1.45
26-40MVA augmentation – Johar Town	1.45
26-40MVA augmentation – Kasur	1.45
26-40MVA augmentation – Mcload Road	1.51
26-40MVA augmentation – Model Town	1.51
26-40MVA augmentation – Old Kot Lakhpat (OKLP)	1.51
26-40MVA augmentation – Okara City-I	1.51
26-40MVA augmentation – Rehman Park	1.51
26-40MVA augmentation – Shadman	1.51
26-40MVA augmentation – Shahdara New	1.51
26-40MVA augmentation – Town Ship	1.51
26-40MVA augmentation – Badami Bagh	1.51
26-40MVA augmentation – Qartaba	1.51
26-40MVA augmentation – Bhogiwal	1.07
New Site – Sukh Chan Multan Road	4.51

Non-STG subprojects (deliverables):
Installation of Capacitors – 132kV & 11kV capacitors

Modernization – Automated Meter Reading Modernization – Distribution Trans Protection Pilot Subproject Modernization - Install reclosers & sectionalisers to improve system performance

Rehabilitation – Replace time expired/technically inadequate substation equipment

MEPCO

STG subprojects (14 deliverables):

_		
	New Site – Lar Additional line bay – Bahawalnagar Two additional line bays 220kV – Bahawalpur Additional line bay – Chistian Additional transformers & line bay – Gujrat South 26MVA transformer extension – Khan Pur 66kV to 132kV Conversion – Shadan Lund 13-26MVA augmentation – Shujabad 13-26MVA augmentation – Bonga Hayat 13-26MVA augmentation – Rajan Pur Transformer by extension – Feroza 26MVA transformer extension – Sama Satta 2 x 26MVA augmentation – Liaqat Pur 66kV to 132kV Conversion – Shadan Lund	4.28 0.18 0.36 0.18 0.36 1.43 1.95 1.07 1.07 1.07 1.43 2.13 1.95
	Non-STG subprojects (deliverables): Energy Loss Reduction – Reconductoring, reconfiguring	
	networks	
	Installation of Capacitors – 132kV & 11kV capacitors	
	Total and the capability of the capability	
PESCO		
	STG subprojects (16 deliverables):	
	26MVA transformer extension – Shabqadar	1.43
	26MVA transformer extension – Dalazak	1.43
	26MVA transformer extension – Peshawar Cant.	1.43
	26MVA transformer extension – Jhangaria	1.43
	26MVA transformer extension – Temergara	1.43
	26MVA transformer extension – Battal	1.43
	26MVA transformer extension – Hattar	1.43
	26MVA transformer extension – Gadoon Amazai	1.43
	26MVA transformer extension – Rehman Baba	1.43
	26MVA transformer extension – Prova 13-26MVA augmentation – D.I. Khan	1.43 1.07
	26MVA transformer extension – Jalala	1.43
	13-26MVA augmentation – Mardan II	1.43
	13-26MVA augmentation – Chakdara	1.07
	13-26MVA augmentation – Khawaza Khela	1.07
	Transmission line & line bays - Karak	1.77
	Non-STG subprojects (deliverables): Distribution of Power – 11kV / LV extensions, distribution substations	
	Installation of Capacitors – 132kV & 11kV capacitors	
	Modernization – Install reclosers & sectionalisers to improve	
	system performance	
	Rehabilitation – Replace time expired/technically inadequate	
	substation equipment	
QESCO	0.70	
	STG subprojects (9 deliverables):	4 40
	26MVA transformer extension – Kalat)	1.43
	13-26MVA augmentation – Kalat) 26MVA transformer extension – Mastung	1.07 1.43
	26MVA transformer extension – Mastung 26MVA transformer extension – Nai	1.43
	26MVA transformer extension – Nair 26MVA transformer extension – Musferpur	1.43
	26MVA transformer extension – Barkhan	1.43
	26MVA transformer extension – Rakni	1.43
	26-40MVA augmentation – Sariab	1.51
	66kV-132kV Conversion – Ali Zai	3.28
	66kV-132kV Conversion – Kanak	2.79
	Non-STG subprojects (deliverables):	
	Energy Loss Reduction – Reconductoring, reconfiguring	
	networks	
	Distribution of Power – 11kV / LV extensions, distribution	
	substations	
	Installation of Capacitors – 132kV & 11kV capacitors	
	Rehabilitation – Replace time expired/technically inadequate substation equipment	
	substation equipment	

8.2 Performance Indicators (as specified in the Design and Monitoring Framework)

- 66. **Physical:** (Review and revise as necessary)
 - (i) 12,000 GWh of additional power distributed annually to customers by 2009,
 - (ii) Grid-connected customers increased to 90% of the population by 2011,
 - (iii) Bidding for procurement of equipment for Tranche-1 subprojects completed by August 2010 and for civil works by October2010, whereas for Tranche-2 subprojects, bidding for procurement of equipment completed by June 2012 and for Civil Works by September 2010.
 - (iv) Implementation of Tranche-1 subprojects begun byOctober 2009, and Tranche-2 by July 2012.
 - (v) Procurement of equipment under Tranche-1 completed byMarch 2011, and under Tranche-2 by December 2013.
 - (vi) Installation of equipment for Tranche-1 subprojects completed byOctober 2011, and for Tranche-2 by June 2014; and
 - (vii) Systems technical losses are reduced each year by 10% of the previous year's loss figure.
- 67. **Non-Physical:** (Review and revise as necessary)
 - (i) DISCOs' full compliance with license requirements by 2009;
 - (ii) DISCOs restructuring completed and operational, and financial autonomy achieved in 2008; and
 - (iii) DISCOs implement adequate project management and information systems by 2008.

8.3 Progress Report

1. Project Performance Monitoring System

68. The DISCO shall establish, within 3 months of the Effective Date, the Project Performance Monitoring System (PPMS) in a form and substance acceptable to ADB, in accordance with the Project performance indicators and targets stipulated in the design and monitoring framework.

2. Quarterly Progress Report

69. Each DISCO will prepare and submit through PEPCO to ADB quarterly progress reports for the individual Subproject under the MFF. The reports will include a description of physical progress, problems, and difficulties encountered and a summary of financial accounts that will consist of loan expenditures during the period, year to day and total to date and include a report on progress of the implementation of land acquisition and resettlement plans; indigenous development plans; environmentally management plan; measures to ensure environmentally responsible procurement; and other mitigation measures as specified in the contracts.

- 70. The quarterly progress report prepared by each DISCO will provide (i) a narrative description of projects made during the period (progress on compliance with environmental and social requirements, including the environmental management plan (EMP) and resettlement framework, will also be included);(ii) changes in the implementation schedule; (iii) problems or difficulties encountered; and (iv) work to be carried out in the next period. The progress reports will also include a summary financial account for the subproject components, consisting of subproject expenditures during the period, total-expenditure to date and benefit monitoring in accordance with procedures and details acceptable to ADB. Performance will be evaluated on the basis of indicators and targets stipulated in the design and monitoring framework.
- 71. Each DISCO shall ensure that the appointed ESDC will conduct internal monitoring and evaluation of the implementation of the LARPs, IPDP and EMPs. The report will also include any changes in the implementation schedule, problems or difficulties encountered and work to be carried out in the next period and a summary financial account of the subproject components, consisting of expenditures during the period, total expenditure to date, and benefit monitoring in accordance with procedures and details acceptable to ADB. Performance will be evaluated on the basis of indicators and targets stipulated in the design and monitoring framework. ADB Management will prepare periodic reports to inform ADB's Board of Directors of overall progress. A Board information report will be submitted annually, and progress reports will be submitted to inform the Board of the approval of Loan Agreements.

3. Project Completion Report (PCR)

- 72. Promptly after physical completion of each tranche, but in any event not later than **three (3) months thereafter** the DISCO shall prepare and furnish through PEPCO to ADB a project completion report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Facility, including its cost, the performance by the DISCO of its obligations under the Project Agreement and the accomplishment of the purposes of the Loan.
- 78. Promptly after physical completion of the Support Project, but in any event not later than **three (3) months thereafter** PEPCO shall prepare and furnish to ADB a project completion report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Support Project, including their cost, the performance by PEPCO of its obligations under the Project Agreement and the accomplishment of the purposes of the Loan.

9.1 Legal Covenants

- 73. The Government and DISCOs have agreed to the following specific assurances, in addition to the standard assurances and assurances agreed to in the FFA, which will be incorporated in the legal documents.
- 74. **Policy Dialogue.** The Government will ensure that ADB is kept informed about the Government's policies and programs related to the power sector that will materially affect the financial viability of DISCOs and each subproject under the Investment Program, and in particular the power generation and transmission policies and program, as well as the power distribution policies and program.
- 75. **Tariff.** DISCOs will submit petitions for tariff revision as required to maintain its financial viability. Following tariff determination by NEPRA, the Government will undertake to notify such tariff determination in a prompt manner. Starting 2009, the Government will ensure that the tariff formulated for DISCOs are adequate to cover operating costs, maintenance, depreciation, and financing cost and to allow an acceptable return on the equity of DISCOs.

9.2 Financial Covenants

- 76. **Financial Performance.** The Government will ensure that each DISCO maintains a debt service coverage ratio of at least 1.2 from 2011 onward and a self-financing ratio of at least 20% from 2011 onward.
- 77. **Financial Autonomy.** The Government will ensure that DISCOs bill all customers directly and in a timely manner for the power distribution services rendered. The Government will ensure that all government paying authorities provide prompt payment to DISCOs, and in case of any shortfall from the paying authority, the Government finances such shortfall in a timely manner.
- 78. **Auditing and Accounting.** The Government will cause DISCOs to ensure that proper accounts and records are maintained in a timely manner to adequately identify the use of tranche proceeds in such a manner and details as may be specified in each loan agreement and project agreement. Audited financial reports of each DISCO will be submitted to ADB within 6 months of the end of fiscal year to which they relate.
- 79. **Financial Governance.** The Government will cause each DISCO to ensure that its internal controls are in accordance with the National Accounting Standards, and an independent and autonomous internal audit department is set up within each DISCO.

9.3 Safeguards Covenants

80. **Land Acquisition and Resettlement.** Medium/low voltage lines up to 11 kV causing LAR or income impacts will not be eligible to financing under the MFF. However, lines at voltages of 33 kV and above and substation subprojects causing LAR or income impacts will be fully eligible for financing under the MFF. In the case of these subprojects,

the Government will cause each DISCO to ensure that (i) all land and rights-of-way required by the subprojects are made available in a timely manner; (ii) the provisions of the relevant LARP are implemented promptly and efficiently according to its terms, applicable laws and regulations of Pakistan, ADB's *Policy on Involuntary Resettlement* (ADB's *Safeguard Policy Statement* for subprojects initiated after June 2009), ADB's Operations Manual F2 on Involuntary Resettlement (2003), and the LARF; (iii) the relevant LARP is updated based on the detailed design, prepared in full consultation with the affected persons and disclosed to them prior to submitting the LARP to ADB; (iv) the contractors' activities are in compliance with requirements of the relevant LARP and the LARF, and (v) an independent monitor acceptable to ADB is engaged to carry out monitoring and evaluation and report to ADB in accordance with the requirements of the LARPs. The signing of civil work contracts or a similar milestone will be subject to ADB's review and approval of the relevant LARP and award of civil works will be subject to ADB review and approval of implementation of the relevant LARPs, including the provision of full compensation to the affected people.

- 81. **Indigenous Peoples.** The Government will cause each DISCO to ensure that all subprojects affecting tribal peoples are constructed and operated in accordance with the requirements of ADB's *Policy on Indigenous Peoples* (ADB's *Safeguard Policy Statement* for subprojects initiated after June 2009) as specified in the IPDF and indigenous peoples development plans (IPDPs) agreed with ADB. Each DISCO will ensure that the IPDP are monitored and evaluated by an independent agency.
- 82. **Environment.** The Government will cause each DISCO to ensure that (i) the subprojects are designed, constructed, operated, and maintained in accordance with all applicable laws and regulations of Pakistan and ADB's *Environment Policy* (ADB's *Safeguard Policy Statement* for subprojects initiated after June 2009); (ii) all subprojects will strictly follow the mitigation measures in the IEE, including the EMPs and the EARF; (iii) mitigation measures identified in the EMPs will be incorporated in bidding documents and civil work contracts and implemented under supervision of the DISCOs; and (iv) environmental monitoring reports will be submitted to ADB twice annually during the construction and operation period, including progress made on the mitigation measures, monitoring data, problems encountered, enforcement plan, complaints, violations, or modifications to mitigation measures to take account of unexpected environmental impacts and the acceptability of the residual impacts.
- 83. **Social Impacts.** The Government will cause each DISCO to ensure that all civil works contractors (i) comply with all applicable labor laws of Pakistan and pertinent occupational health and safety regulations, (ii) use their best efforts to employ women living in the vicinity of the project/subproject area, (iii) disseminate information at worksites on the risks of sexually transmitted diseases and HIV/AIDS for those employed during construction, and (iv) are required not to differentiate between men and women's wages or benefits for work of equal value, and not to use child labor. Contracts for all projects to be financed under the Investment Program must include specific clauses on these undertakings, and compliance will be strictly monitored.
- 84. The Government will cause each DISCO to monitor the subproject effects on women during each subproject implementation, through, where relevant, gender-disaggregated data collected pursuant to the monitoring and evaluation system referred to in the subproject performance monitoring system.

- 1. Safeguards Frameworks:
 - (i) Land Acquisition and Resettlement Framework Is part of the Framework Financing Agreement and can be accessed in the Project Documents Folder provided to each DISCO Project Management Unit during ADB's Inception Mission on 29 January 12 February 2009.
 - (ii) Indigenous People's Development Framework is part of the Framework Financing Agreement and can be accessed in the Project Documents Folder provided to each DISCO Project Management Unit during ADB's Inception Mission on 29 January 12 February 2009.
 - (iii) Environmental Assessment and Review Framework is part of the Framework Financing Agreement and can be accessed in the Project Documents Folder provided to each DISCO Project Management Unit during ADB's Inception Mission on 29 January 12 February 2009.
- 2. Independent Monitoring Report Outline
 - (i) Quarterly Progress Report
 - (ii) Framework and Guidelines in Calculating Project Progress
- 3. External Monitoring Agency Terms of Reference
- 4. Social Development/ Resettlement Cell Terms of Reference

INDEPENDENT MONITORING REPORT OUTLINE

A. QUARTERLY PROGRESS REPORT

Pro Forma of the Executing Agency's Project Progress Report

A. Introduction and Basic Data

1. Provide the following:

- (i) ADB loan number, project title, borrower, executing agency(ies), implementing agency(ies);
- (ii) total estimated project cost and financing plan;
- (iii) status of project financing including availability of counterpart funds and cofinancing;
- (iv) dates of approval, signing, and effectiveness of ADB loan;
- (v) original and revised (if applicable) ADB loan closing date and elapsed loan period based on original and revised (if applicable) loan closing dates; and date of last ADB review mission.

B. Utilization of Funds (ADB Loan, Cofinancing, and Counterpart Funds)

2. Provide the following:

- (i) cumulative contract awards financed by the ADB loan, cofinancing, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets);
- (ii) cumulative disbursements from the ADB loan, cofinancing, and counterpart funds (expenditure to date), and comparison with time-bound projections (targets); and
- (iii) reestimated costs to completion, need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely.

C. Project Purpose

3. Provide the following:

- (i) status of project scope/implementation arrangements compared with those in the report and recommendation of the President (RRP), and whether major changes have occurred or will need to be made;
- (ii) an assessment of the likelihood that the immediate development objectives (project purpose) will be met in part or in full, and whether remedial measures are required based on the current project scope and implementation arrangements;
- (iii) an assessment of changes to the key assumptions and risks that affect attainment of the development objectives; and
- (iv) other project developments, including monitoring and reporting on environmental and social requirements that might adversely affect the project's viability or accomplishment of immediate objectives.

D. Implementation Progress

4. Provide the following:

- assessment of project implementation arrangements such as establishment, staffing, and funding of the PMO or PIU;
- (ii) information relating to other aspects of the EA's internal operations that may impact on the implementation arrangements or project progress;
- (iii) progress or achievements in implementation since the last progress report;
- (iv) assessment of the progress of each project component, such as,
 - recruitment of consultants and their performance;
 - procurement of goods and works (from preparation of detailed designs and bidding documents to contract awards); and
 - the performance of suppliers, manufacturers, and contractors for goods and works contracts;
- (v) assessment of progress in implementing the overall project to date in comparison with the original implementation schedule—quantifiable and monitorable target, (include simple charts such as bar or milestone to illustrate progress, a chart showing actual versus planned expenditure, Scurve graph showing the relationship between physical and financial performance, and actual progress in comparison with the original schedules and budgets, the reference framework or guidelines in calculating the project progress including examples are shown in Appendix 2); and
- (vi) an assessment of the validity of key assumptions and risks in achieving the quantifiable implementation targets.

E. Compliance with Covenants

5. Provide the following:

- the borrower's compliance with policy loan covenants such as sector reform initiatives and EA reforms, and the reasons for any noncompliance or delay in compliance;
- (ii) the borrower's and EA's compliance with financial loan covenants including the EA's financial management, and the provision of audited project accounts or audited agency financial statements; and
- (iii) the borrower's and EA's compliance with project-specific loan covenants associated with implementation, environment, and social dimensions.

F. Major Project Issues and Problems

6. Summarize the major problems and issues affecting or likely to affect implementation progress, compliance with covenants, and achievement of immediate development objectives. Recommend actions to overcome these problems and issues (e.g., changes in scope, changes in implementation arrangements, and reallocation of loan proceeds).

B. FRAMEWORK AND GUIDELINES IN CALCULATING PROJECT PROGRESS

A. Introduction

- 1. To ensure that all implementation activities are reflected in measuring implementation progress against the project implementation schedule, the term "physical completion" in the PPR has been changed to "project progress."
- 2. Physical and precommencement activities are considered in calculating project implementation progress. These activities, which may include recruitment of consultants, capacity building, detailed design, preparation of bid and prequalification documents, etc., could constitute a significant proportion of overall implementation and therefore should be counted.
- 3. Each activity in the implementation schedule will be weighted according to its overall contribution (using time as a reference) to progress of project implementation. These weights will then be used to calculate the percentage of project progress along the entire time span of the project. This is to provide a holistic view of the pace of implementation.

B. Framework for Compiling Activity List and Assigning Weights

4. As implementation activities and their corresponding weights will vary according to the type of project, sector, and country, sector divisions or RMs will be responsible for determining and including them in the project administration memorandum. The actual project implementation progress of these activities should be reported regularly through the EA's quarterly project progress report. To ensure ADB-wide consistency, the following framework has been established; its application will be monitored through the PPR.

1. Compilation of Activity List

5. Sector divisions or RMs concerned should identify major implementation activities and include them in the implementation schedule, which is attached as an appendix in the report and recommendation of the President (RRP). The implementation schedule should follow the critical path of the project's major activities in project implementation taking account of various country, sector, and project constraints.

2. Assignment of Weights

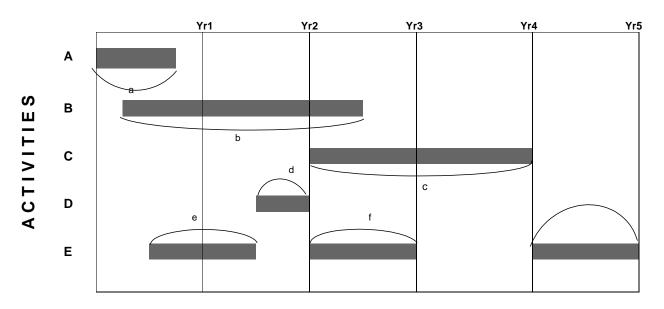
6. Corresponding weights for each activity should be assigned to ensure that "project progress" measures the percentage of achievement (nonfinancial except when the project has credit components) for all events during the entire duration of the implementation schedule. To avoid disproportionate assignment of weights, to the extent possible these should be evenly distributed along the implementation schedule. When activities are concurrent, avoid "double counting."

3. Computation of Project Progress

- 7. Once all activities are identified and corresponding weights assigned, project progress should be calculated using the following steps:
 - (i) Determine the actual percentage progress (nonfinancial) of each activity.
 - (ii) Multiply these percentages by the assigned weight of each activity to arrive at the weighted progress.
 - (iii) Add up the resulting weighted progress of all activities to determine the project progress.
- 8. Page 3 of this Appendix provides an illustration of this calculation using a generic sample implementation schedule and this Appendix, page 4 a specific example in the education sector.

PAI 5.01 Appendix 2

Implementation Schedule with Activities and Weights



- Sum of all weights should equal 100 percent (a+b+c+d+e+f+g = 100%) When calculating the percentage of "project progress," all completed activities should be counted as accomplished, regardless of when they were scheduled to be completed. For example, when calculating the percentage of "project progress" after year 3, if activity D is completed in
- year 3 rather than in year 2, it should still be included in the computation.

 Total weight of each activity is as follows: Activity A-a; Activity B-b; Activity C-c; Activity D-d; and Activity E-e + f +g
- Project progress of a project is the summation of the actual percentage of progress for each activity multiplied by the total weight of each

PAI 5.01 Appendix 2

Sample Implementation Schedule

Activities	Year 1	Year 2	Year 3	Year 4	(a) Assigned Weight	(b) Actual Progress	(a) x (b) Weighted Progress
Establish PIU					5%	100%	6%
Establish Accreditation Board, etc.					5%	0%	0%
Appoint Staff and Budget					4%	75%	3%
Adopt Architecture Plans					2%	100%	2%
Shortlist Consulting Firms					6%	100%	6%
Prepare Fellowship Program					6%	76%	4%
Prepare Civil Works Tendering					30%	0%	0%
Civil Works: Classrooms, Dorms, etc.					6%	0%	0%
Procurement of Furniture and Equipment					16%	10%	2%
Field Work of Consultants					7%	0%	0%
Provide Fellowships					6%	0%	0%
Conduct Study Tours					6%	0%	0%
Provide Curriculum Standards					6%	0%	0%
				Total Weight	100%		
				Imp. Progress			24%

(a) Assigned weight for each activity
 (b) Actual progress of each activity
 (a) x (b) weighted progress for each activity
 Project progress = sum of all weighted progress for each activity

EXTERNAL MONITORING AGENCY TERMS OF REFERENCE

A. Terms of Reference for an External Agency for Monitoring and Evaluation

Monitoring is an integral part of the resettlement process. The agency will be involved in ongoing monitoring of resettlement implementation.

Objective/Purpose of the Assignment:

The objectives of external M&E are to review implementation, and assess the (i) achievement of resettlement objectives, (ii) changes in living standards and livelihoods and restoration of economic and social base of the APs, (iii) the effectiveness, impact and sustainability of entitlements, (iv) the need for further mitigation measures if any. External M&E should also enable the Executing Agency to make timely decisions on corrective measures needed to implement resettlement effectively, and learn strategic lessons for future policy formulation and planning.

Qualifications

The selected organization should be of high professional standing and have a strong track record in the field of social development and resettlement. It should also have a proven record in project monitoring and be able to demonstrate adequate resources

Scope of Work

The major tasks expected from the external monitor are:

- (i) Review and verify internal monitoring systems and findings.
- (ii) Conduct independent investigations of project implementation, including PIUs, local offices and consultations with village leaders, NGOs and affected people, especially women and vulnerable groups.
- (iii) Prepare independent reports based on monitoring visits.
- (iv) Suggest major recommendations for remedial actions.
- (v) Identify lessons learned.
- (vi) Maintain database of independent surveys.
- (vii) Suggest remedial actions with time-based outputs.
- (viii) Share the major lessons from the process both in terms of success and failure.

Detailed Tasks:

- (i) Prior to commencement, prepare a Monitoring and Evaluation plan giving details on:
 - (a) Aim and scope of monitoring system
 - Setting up the objectives of monitoring
 - Defining the monitoring system and monitoring cycle
 - Defining the scope of monitoring

(b) Monitoring Strategy

The general approach to be used to monitor activities and results ensuring participation of all stakeholders, especially women and vulnerable groups.

(c) Project Results

A summary of the major project activities, expected results, and the indicators to be used to monitor the progress and achievement of results

- (d) Defining and Selecting Indicators
 - Identify key indicators to be monitored
 - Indicators for each stage of project implementation
 - Gender-disaggregated indicators
 - Select only those which are simple, specific, and verifiable
- (e) Collection and Analysis of Data
 - Method of data collection
 - Sampling (20% of affected people and 20% of vulnerable groups)
 - Analysis
- (ii) Verify the internal monitoring process and reporting by executing agency (EA) through field visits and independent investigations.
- (iii) Assess the extent to which the resettlement plan is being followed and objectives being met.
 - Institutional arrangements;
 - Adequacy of the Management Information System;
 - Payment of compensation, adequacy of budget and timeliness of payment;
 - Land readjustments;
 - Consultation and information dissemination;
 - Preparation and adequacy of resettlement sites;
 - House construction;
 - Provision of employment, its adequacy, and income levels;
 - Training:
 - Gender impacts;
 - Rehabilitation of vulnerable groups;
 - Infrastructure repair, relocation, or replacement;
 - Enterprise relocation, compensation and its adequacy; and
 - Transition allowances.
- (iv) Monitor the different stages (resettlement and rehabilitation stages) of the project with specific and need based framework.
- (v) Monitor the quality, effectiveness, efficiency and sustainability of the resettlement efforts.
- (vi) Monitor the process undertaken by EA for implementing resettlement and develop a framework for process monitoring.

- 68 Appendix 3
- (vii) Highlight the major problems being faced and limitations of implementing the RP and identify corrective measures needed to implement resettlement effectively.

Methodology

- (i) Study the baseline data on income and expenditure, occupational and livelihood patterns, arrangements for use of common property, social organization, leadership patterns, community organizations and cultural parameters from the available reports.
- (ii) Identify an appropriate set of indicators for gathering and analyzing information on resettlement impacts; the indicators shall include but not be limited to issues such as payment of compensation, relocation and resettlement assistance, delivery of entitlement packages, restoration of income and living standards, level of satisfaction by the affected persons, and the quality of resettlement operations.
- (iii) Review results of internal monitoring and verify claims through random checking at the field level to assess whether resettlement objectives have been generally met. Involve the affected people and community groups in assessing the impact of resettlement for Monitoring and Evaluation purposes.
- (iv) Conduct both individual and community level impact analysis through the use of formal and informal surveys, key informant interviews, focus group discussions, community public meetings, and in-depth case studies of affected people from various social classes (e.g., scheduled caste, scheduled tribes, other backward castes) to assess the impact of resettlement.
- (v) Identify the strengths and weaknesses of the resettlement objectives and approaches, implementation strategies, including institutional issues, and provides suggestions for improvements in future ADB-funded resettlement planning and implementation.

Reporting Requirements

- (i) Monitoring and Evaluation Plan
- (ii) Quarterly reports for large-scale projects reducing over time
- (iii) A baseline survey data report prior to commencement,
- (iv) A semi-annual or annual report during resettlement implementation,
- (v) Annual evaluation reports for at least 2 years or until resettlement has been declared successfully completed
- (vi) Final M&E Report

SOCIAL DEVELOPMENT / RESETTLEMENT SPECIALIST TERMS OF REFERENCE

Terms of Reference for Social/ Resettlement Team

Objective/ Purpose of the Social/ Resettlement Team

Social development/ resettlement team/cell is a team (the Team) that needs to be established by the Implementing Agency to manage the resettlement activities of the project. The Team will be positioned under Project Management Office (PMO) and report activities to the Director, PMO.

The objectives of the cell is to ensure social/ resettlement issues, requirements and provisions of the project activities are met and well coordinated with the relevant parties within the PMO, the executing agency and relevant external agencies.

Qualifications

The team should be led by a highly qualified resettlement/ social development specialist. Other team members may come from other relevant education background with a good knowledge on social and resettlement related issues.

Scope of Work

The major tasks expected from the Team are:

- (i) Implement and monitor the approved Land Acquisition and Resettlement Plan (LARP/s)
- (ii) Prepare new and/ or updated LARPs when required
- (iii) Set up internal monitoring system on the project's social and resettlement issues and requirements
- (iv) Select and appoint an External Monitoring Agency (EMA)
- (v) Project Information Management and Development
- (vi) Capacity Building
- (vii) Conduct internal and external coordination with relevant parties in social/resettlement activities/ requirements of the project.
- (viii) Set up redress and grievance mechanism for project activities
- (ix) Report preparation and submission
- (x) Provide advice/ recommendation to the Director, PMO on social safeguard/ resettlement problems/requirements
- (xi) Redress or follow up actions based on findings and requirements of EMA reports

Detailed Tasks

(i) LARP Implementation

The Team will be responsible for the implementation of approved LARP/s. All provisions and requirements in the LARP/s will have to be fulfilled. This includes:

- Setting up the required institutional arrangements such as grievance and redress mechanism
- Report for any changes, delayed or problems in the LARP implementation to the PMO team leader.

- Assist in the delivery of compensation, allowances and other resettlement provisions
- Submit LARP/s completion report
- (ii) LARP/s Updating and Preparation

The Team will prepare updated/ final LARP/s and/or new LARP/s when required. Activities under this task include:

- Conduct detail/ final survey of the affected people (AP) and inventory of losses
- Prepare updated/ final/ new LARP documents and submit to ADB
- Prepare leaflet, brochure of resettlement activities/ entitlement for distribution to the AP
- Conduct consultation with AP for finalization of entitlement matrix
- Create a specific web page related to resettlement and land acquisition,
 Upload the final LARP/s documents at project's website when available
- Update the web page periodically
- Ensure regular consultations with affected persons
- (iii) Internal and External Monitoring

The Team will require developing and providing input for internal and external monitoring purposes. For internal monitoring activity, the tasks will include:

- Provide regular update and input to the Director, PMO on the progress and issues related to LARP implementation
- Develop LARP implementation monitoring system and required action plans to be follow up with the responsible parties
- Prepare quarterly internal monitoring reports on land acquisition and resettlement and submit to the Director, PMO.

For external monitoring the cell will be responsible for the following:

- Select suitable candidates/organizations for external monitoring activities to be approved by ADB and appointed by PMO
- Prepare the TOR for EMA activities with ADB approval
- Develop monitoring criteria and indicators together with the appointed EMA
- Provide the baseline information and necessary documents of the project
- Monitor and report to PMO of the EMA activities
- Review the EMA reports and submit to ADB
- Prepare action plan/s for following up the EMA findings and recommendation when required.
- (iv) Project Information Management and Development
 - Develop baseline data/ information of project AP, through socio economic survey, secondary data collection, field visits, etc.
 - Maintain social/ resettlement information system of the project areas through regular updating of LARP status, report monitoring and record filling
- (v) Capacity Development
 - Conduct training/ workshop for LAR policies and requirement for project staff and relevant government officers
 - Encouraged proper implementation of the country's land acquisition policy and strengthened the roles of LAC to safeguard the country's LAR policy
 - Share and disseminate knowledge of ADB social safeguard policies within the agency and relevant external agencies and exchange best practices of LAR implementation activities
- (vi) Internal and External Coordination

The Team should actively seek coordination within relevant divisions of PMO for avoiding conflicting schedule and activities with other divisions. Coordinate and develop working relationships with external agencies relevant with social and resettlement issues. This is especially important for the establishment of grievance and redress mechanism of the projects that require involvement of external agencies (i.e. NGO, local governments, revenue office, justice departments, etc.).

(vii) Reporting, Technical Advising and Redressing
The Team will have the responsibility to support the PMO to comply and submit all the resettlement related reporting requirements to ADB. The Team might need to provide technical advice on resettlement/social issues to the Director, PMO. Also prepare a plan/ follow up actions for any problems in LARP implementation/ other resettlement and social issues as indicated in the EMA reports.

Reporting Requirements

- (i) LARP progress report
- (ii) LARP completion report
- (iii) Summary EMA reports

Budget

Specific budget for the required activities and staff remuneration must be prepared and included in the project financing plan and cost. It should indicate the source of fund for each allocated/ required activities.