

**TA 8818-PAK: Power Transmission Enhancement Investment Program II
PROJECT PREPARATORY TECHNICAL ASSISTANCE**

A. Justification

1. The main objective of the proposed project preparatory technical assistance (PPTA) is to: i) prepare the multitranche financing facility (MFF) of the Power Transmission Investment Program II and its first tranche; and ii) assist the executing agency to undertake advance procurement.
2. The PPTA is necessary on the following grounds:
 - (i) The investment program is urgently needed in Pakistan.
 - (ii) While the government has a plan to invest in the program, the feasibility study to process the investment program and loan for tranche 1 is required.
 - (iii) Expertise of competent international and national consultants is needed to prepare the investment program considering its technical complexity and scale.

B. Major Outputs and Activities

3. The major outputs and activities are summarized in Table A3.1.

Table A3.1: Summary of Major Outputs and Activities

Major Activities	Expected Commencement Date	Major Outputs	Expected Completion Date
Project Scope			
<ul style="list-style-type: none"> - Review relevant study reports - Gather relevant data and information - Assess power transmission and investment plan - Update the power transmission sector road map (and align with least-cost generation plan) - Assess sector and project risks - Update power sector assessment 	March 2015	<ul style="list-style-type: none"> - Sector assessment report with updated sector road map - Risk assessment report 	August 2015
Technical Design			
<ul style="list-style-type: none"> - Conduct technical due diligence - Review the least-cost generation plan - Define functional technical specifications and tentative BoQs - Detailed cost estimates, procurement plan, and implementation schedule with disbursement projection - Undertake site visit and survey for all the project regions - Update site survey and analysis - Conduct alternative analysis - Propose best available solution - Finalize the route - Assist in preparing PC-1 and other supporting document to obtain government approval of the feasibility study - Provide assistance in preparing project documents (RRP, FAM and other linked documents) 	March 2015	<ul style="list-style-type: none"> - Feasibility Study Report - Technical Specification report - PC-1 document - FAM 	August 2015
Financial and Economic Analyses			
<ul style="list-style-type: none"> - Prepare project financial plan including on-lending schemes - Prepare an overall investment plan for the MFF - Conduct economic analyses with sensitivity analysis - Financial analyses with sensitivity analysis - Financial management assessments of the executing agency - Conduct historical financial statements analysis and projections - Assess corporate management structure - Review tariff structure 	March 2015	<ul style="list-style-type: none"> - Economic analysis report - Financial analysis report - Fund flow analysis report - Financial management 	August 2015

- Assess fund flow, disbursement and funding arrangements		assessment report	
- Conduct least-cost analysis and demand forecast			
- Review progress of ADB's Sustainable Energy Sector Reform Program and circular debt issue			
Safeguard			
- Assess environmental impacts and conduct public consultations		- IEE/EIA (as required)	
- Prepare IEE/EIA (as required) and EMP ¹		- LARP and LARF	
- Prepare LARP and LARF		- Social and poverty assessment	August 2015
- Prepare IPPF		- Summary poverty reduction and social strategy	
- Conduct poverty, social analysis and social safeguards due diligence and prepare due diligence report	March 2015		
- Conduct rapid poverty and social assessment (including gender analysis)			
- Undertake site visit, survey, and consultations, for all the project regions as required			
Procurement			
- Complete procurement risk assessment and prepare project P-RAMP, including procurement capacity assessment of the executing agency		- P-RAMP	
- Based on the P-RAMP, prepare the capacity building program to strengthen the executing agency's capacity in undertaking procurement and address other risks identified	March 2015	- Procurement capacity assessment	December 2015
- Draft procurement plan		- Capacity building plan	
- Master bidding documents for different types of, including an RFP for selection of implementation consultant		- Draft procurement plan	
		- Master bidding documents	
Governance			
- Review the operational structure of NTDC	March 2015	- Operational improvement study report	December 2015
Capacity Development			
- Identify the training needs for best practice business procedures and regulation, and international operation and maintenance, best practice	March 2015	- Training need assessment	December 2015
- Prepare and/or training modules, materials and program		- Training Module	
		- Training of staff	

ADB = Asian Development Bank, BoQ = bill of quantities, EIA= environmental impact assessment, EMP = environmental management plan, FAM = facility administration manual, IEE = initial environmental examination, IPPF = indigenous peoples planning framework, LARF = land acquisition and resettlement framework, LARP = land acquisition and resettlement plan, MFF = multitranché financing facility, NTDC = National Transmission and Despatch Company, PC = Planning Commission, P-RAMP = procurement risk assessment and management plan, RFP = request for proposal, RRP = report and recommendation of the President.

Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

4. The PPTA is estimated to cost \$1.8 million equivalent, of which \$1.5 million equivalent will be financed on a grant basis by the Technical Assistance Special Fund (TASF-V) of the Asian Development Bank (ADB).² The government, through the National Transmission and Despatch Company (NTDC), will provide counterpart support in the form of staff, data and information provision, office and communication facilities for consultants, and other in-kind contributions. The detailed cost estimates are in Table A3.2. The government has been advised

¹ If the initial environmental examination indicates an environmental impact assessment is required based on the ADB SPS, 2009, the PPTA consultant will prepare an environmental impact assessment. Similarly, if the social assessment finds any impact to indigenous peoples, as described in the ADB SPS 2009, the indigenous peoples development plan will be prepared by the consultant. In both cases, the safeguard categorization will be updated.

² External financing will not be pursued as this PPTA is focused on the due diligence for the MFF and tranche 1.

that approval of the PPTA does not commit ADB to finance the ensuing program or any of its tranches.

Table A3.2: Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (30 person-months)	900.0
ii. National consultants (29 person-months)	232.0
b. International and local travel	140.0
c. Reports and communications	8.0
2. Workshops, training, seminars, and conferences ^b	
a. Workshops, trainings and seminars	80.0
3. Vehicle hire ^c	10.0
4. Surveys/Report Preparation	15.0
5. Miscellaneous administration and support costs	5.0
6. Contingencies	110.0
Total	1,500.0^d

^a Financed by ADB's TASF-V.

^b Workshops, training, seminars, and road shows.

Purpose	Venue
Train NTDC staff, complete project workshops	Multiple locations in and outside Pakistan

^c Vehicles

Purpose	Expected length of use
Hire for site visits and attending project meetings	75 days

^d The government will provide counterpart through in-kind contribution valued at 17% of the total TA cost.

ADB = Asian Development Bank, NTDC = National Transmission and Despatch Company Limited, TASF = technical assistance special fund.

Source: Asian Development Bank staff estimates.

D. Consulting Services

5. The PPTA will employ an international consulting firm to prepare: the feasibility studies; due diligence; bid documents, technical specifications; bid evaluation; capacity development; and updating of road map. Individual national experts will be engaged to assist the executing agency to assess environment, social and gender impacts. The required services are summarized in Table A3.3. The quality- and cost-based selection method (90:10) will be used with full technical proposal for the recruitment of consulting firm.

Table A3.3: Summary of Consulting Services Requirement

International Positions	Person-months	National Positions	Person-months
Individual			
		Environment Expert	5
		Social Development Expert (Gender)	2
		Social Safeguards and Resettlement Expert	8
Firm			
Transmission Engineer - Team Leader	6	Power Sector Expert (Transmission)	6
Technical Expert	6	Substation Engineer	3
Economist	1	Economist	2
Financial Expert	3	Financial Expert	3

Procurement Expert	10	
Capacity Development Expert	4	
Total	30	29

Source: Asian Development Bank.

6. Under the proposed PPTA, the consultants will undertake the following tasks:
- (i) **Project feasibility study for the development.** The study covers technical, economic and financial assessment of the project, and includes due diligence on project impact, outcome, scope, cost, schedule, and implementation arrangements. Preparation of the facility administration manual, Planning Commission 1, bidding documents, procurement plan and technical specifications. Conducting a financial management assessment.
 - (ii) **Capacity building.** Conduct needs assessment. Prepare training modules, material and program. Organize and conduct trainings. The training should be aimed at international best practice (i) business processes and regulatory relations, and (ii) management and operations of the transmission systems.
 - (iii) **Support for project preparation.** The consultants will conduct sector assessment and prepare sector road map, assess environmental, social and gender impacts, and develop required frameworks. The procurement experts will assist the implementing agencies in evaluating the bids.

E. Implementation Arrangements

7. NTDC will be the executing and implementation agency. The TA administration will not be delegated to the executing or implementing agency. The TA will be supervised by the Energy Division, Central and West Asia Department. The recruitment of consultants will follow ADB *Guidelines on the Use of Consultants* (2013, as amended from time to time), using quality- and cost-based selection method with 90:10 quality/cost weighting. Disbursements under the TA will be done in accordance with the ADB's TA Disbursement Handbook (2010, as amended from time to time).

8. The proposed PPTA processing and implementation schedule is in Table A3.4.

Table A3.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
PPTA approval	December 2014
Individual consultant recruitment	January–March 2015
Consulting firm recruitment	January–March 2015
Physical completion	December 2015
Financial closure	June 2016

PPTA = project preparatory technical assistance.

Source: Asian Development Bank