

PROJECT PREPARATORY TECHNICAL ASSISTANCE

1. The main objective of the proposed project preparatory technical assistance (PPTA) is to prepare the Advanced Electricity Metering Project Phase 2.

A. Justification

2. The PPTA is necessary on the following grounds:

- (i) The project is urgently needed in Uzbekistan;
- (ii) While the Government of the Republic of Uzbekistan has a plan to invest in the project, there is a need for due diligence and to prepare a feasibility study to process a loan for the project; and
- (iii) Expertise of competent international and national consultants is needed to prepare the project considering the project's technical complexity and scale.

B. Major Outputs and Activities

3. The major outputs and activities are summarized in Table A4.1.

Table A4.1: Summary of Major Outputs and Activities

Major Activities	Major Outputs	Expected Completion Date
<ul style="list-style-type: none"> - Update the power sector overview - Undertake technical due diligence (including distribution network) - Propose appropriate contract packaging - Undertake site visit and survey for all the project regions 	<ul style="list-style-type: none"> - Prefeasibility study report (physical component) 	August 2013
<ul style="list-style-type: none"> - Prepare project financial and investment plan - Conduct economic and financial analyses - Undertake financial management assessment of the project executing agency and its distribution entities - Prepare financial projections for the project executing agency. 	<ul style="list-style-type: none"> - Economic and financial analysis, financial management assessment, and financial projection report 	August 2013
<ul style="list-style-type: none"> - Assess social impacts (including impacts during installation works) - Conduct rapid poverty and social assessment (including gender analysis) - Undertake site visit, survey, and consultations, for all the project regions as required 	<ul style="list-style-type: none"> - Social and poverty assessment report 	December 2013
<ul style="list-style-type: none"> - Review the operational structure and process procedures - Propose the organizational structure for meter, monitoring, inspection, and reporting - Development of a strategy for loss reduction and monitoring improvements - Estimate an appropriate cost recovery tariff for each of the distribution entities 	<ul style="list-style-type: none"> - Operational improvement study report 	February 2014
<ul style="list-style-type: none"> - Draft feasibility study - Prepare presentation material to assist the project executing agency - Assist the project executing agency to obtain government approval of the feasibility study 	<ul style="list-style-type: none"> - Feasibility study report for government approval 	July 2014

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|--|--|-----------------------|
| <ul style="list-style-type: none"> - Identify the training needs for operational improvement - Prepare training materials and program - Organize and arrange training | <ul style="list-style-type: none"> - Training and study tour report | <p>September 2014</p> |
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Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

4. The PPTA is estimated to cost \$750,000 equivalent, of which \$500,000 equivalent will be financed on a grant basis using ADB's Technical Assistance Special Fund (TASF-V) and \$250,000 equivalent will be cofinanced by the Government of France through the Agence Française de Développement (AFD) under the Cooperation Fund for Project Preparation in the Greater Mekong Subregion and in Other Specific Countries and administered by ADB. The government will provide counterpart support in the form of office space, furniture, counterpart staff, data and information provision, communication facilities for consultants, and other in-kind contributions. All disbursements under the PPTA will be made in accordance with the Technical Assistance Disbursement Handbook (2010, as amended). The detailed cost estimate is presented in Table A4.2. The government has been informed that the approval of the PPTA does not commit ADB to finance any ensuing project.

Table A4.2: Tentative Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (17 person-months)	413.0
ii. National consultants (10 person-months)	37.0
b. International and local travel	79.0
c. Reports and communications	8.0
2. Workshops, training, seminars, and conferences ^b	
a. Workshops	2.5
b. Overseas training	15.0
3. Vehicle ^c	5.0
4. Survey/Report preparation	115.0
5. Miscellaneous administration and support costs	19.5
6. Contingencies	56.0
Total	750.0

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V), and the Government of France through the Agence Française de Développement (AFD) under the Cooperation Fund for Project Preparation in the Greater Mekong Subregion and in Other Specific Countries. The cofinancier fund is administered by ADB on a front-loaded basis.

^b Workshops, training, seminars, and conferences

Purpose	Venue
Workshop for 5 distribution entity staff	Tashkent and distribution enterprise in Andijan, Ferghana, Kashkadarya, Namangan and Surkhandarya regions.
Overseas training	Selected countries in Asia and Europe (to be proposed by consultant)

^c Vehicle

Justify the use of and the need to purchase or lease a vehicle	Rental vehicles required during fielding in Tashkent and for site survey.
Expected length of use	135 days equivalent

Source: Asian Development Bank.

D. Consulting Services

5. The PPTA will employ (i) individual consultants (international) for preliminary advance works necessary for due diligence, and (ii) a consulting firm (international) for assessing the operation improvement for meter monitoring and inspection and preparing feasibility study. There are four positions and 8 person-months (pm) for international individual consultants. The consulting firm services will require five position and 9 pm for international and 10 pm for national position, respectively (Table A4.3). The quality- and cost-based selection method with a standard quality:cost ratio of 80:20 will be used with simplified technical proposal for the recruitment of consulting firm.

6. Given the ensuing phase 2 loan project is a scaling up project based on the phase 1 project, the PPTA, among other tasks, will adequately address the following aspects relating to the ensuing loan project: (i) review the lessons learnt from the phase 1 in terms of Advanced Electricity Metering (AEM) architecture design for possible improvements, system compatibility with the phase 1 project, and procurement method, (ii) executing agency capacity to minimize procurement and financial management risks; and (iii) indicative implementation schedule with proposed sequencing of consultant recruitment and procurement bidding and awarding.

**Table A4.3: Summary of Consulting Services Requirement
(Individual)**

International		pm
Power Sector Expert (Distribution) - TL		2.0
AEM Expert (Communication and data management)		2.0
Economic and Financial Expert		2.0
Social Development (Gender) Expert		2.0

(Firm)			
International	Pm	National	pm
Power Sector Expert (Distribution) – TL	3.0	Power Sector Expert (Distribution)	4.0
Capacity Assessment and Training Expert	2.0	Legal expert	1.0
Utility Operations Expert	2.0	Utility Operations Expert	3.0
Legal expert	1.0	Tariff Expert	2.0
Tariff Expert	1.0		

AEM = advanced electricity metering, pm = person-month, TL = team leader.

Source: Asian Development Bank estimates.

7. Under the proposed PPTA, the consultants will undertake the following tasks:
- (i) **Project prefeasibility study for the advanced metering system development:** The study covers technical, economical and financial assessment of the project, and includes due diligence on project impact, outcome, scope, cost, schedule, and implementation arrangements. [individual consultants]
 - (ii) **Training of Uzbekenergo personnel:** The training aims at (i) gaining knowledge of AEM functions from international best practices and experiences; and (ii) learning international best practices to manage and operate the distribution system effectively and reduce losses. Special attention will be given to women employees and operators and managers in the distribution enterprises.[consulting firm]
 - (iii) **Support for project preparation:** The consultants will prepare necessary project documents for Uzbekenergo and assist Uzbekenergo to obtain project approval

from relevant government authorities. [both individual consultants and consulting firm]

- (iv) **Development of a strategy for loss reduction and monitoring improvements:** The strategy covers organizational and operational improvement to manage loss reduction and increase in revenue collection. The strategy is to be developed jointly with the staff and the management of Uzbekenergo. [consulting firm]

E. Implementation Arrangements

8. The State Joint-Stock Company Uzbekenergo will be the executing agency for the PPTA. The existing project management unit (PMU) for the phase 1 will be the project coordinating unit to leverage on the experience already garnered under the phase 1 project. Uzbekenergo will continue to allocate sufficient resources and qualified personnel as required for the project. The PMU will closely work with the consultants.

9. The proposed TA processing and implementation schedule (from July 2013 to January 2015) is listed in Table A4.4.

Table A4.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
- Individual consultant recruitment	July 2013
• Prefeasibility study report (physical component)	August 2013
• Economic and financial analysis, financial management assessment, and financial project report	August 2013
• Social and poverty (including gender) assessment report	December 2013
- Consulting firm recruitment	November 2013
• Operational improvement study report	February 2014
- Loan fact finding	February 2014
- Loan approval	June 2014
- Feasibility study report (for government approval)	July 2014
- Training program report	September 2014
- Final report	January 2015

Source: Asian Development Bank.