

Energy Development 2014-2023
PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The proposed tranche 1 technology is new to Afghanistan. The executing agency, the power utility Da Afghanistan Breshna Sherkat (DABS), has limited capacity and no 500-kilovolt (kV) high-voltage direct-current back-to-back (HVDC B-B) converter experience. International experts are required to conduct due diligence and prepare the project.

B. Major Outputs and Activities

2. The outputs will be (i) a 500 kV overhead line from Sheberghan to Pul-e-Khumri, (ii) an HVDC B-B converter station at Pul-e-Khumri, and (iii) a 220-kV overhead line from Sheberghan to Andkhoy.

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

Table A4.1: Summary of Major Outputs and Activities

Major Activities	Expected Commencement Date	Major Outputs	Expected Completion Date
Review data and existing reports. Reconfirm project methodology, schedule and level of effort.	March 2014	Inception Report	April 2014
Assess technical protocols with Turkmenistan. Confirm demand to be supplied by Turkmenistan. Propose line routings and substation layout. Prepare the project procurement plan with indicative timelines. Prepare feasibility study of 500-kV line and 500-kV HVDC B-B converter station and 220-kV line.	April 2014	Feasibility Report	June 2014
Prepare PPSA	April 2014	FMA	May 2014
Conduct FMA and procurement capacity assessment			
Prepare plan IEE and LARP	April 2014	IEE and LARP	June 2014
Prepare Final Report	July 2014	Final Report	August 2014

FMA = financial management assessment, HVDC B-B = high voltage direct current, back-to-back, kV = kilovolt, IEE = initial environmental examination, LARP = land acquisition and resettlement plan, PPSA = power purchase and sales agreement

Source: ADB estimates.

C. Cost Estimate and Proposed Financing Arrangement

4. The project preparatory technical assistance (PPTA) is estimated to cost \$1,600,000 equivalent, of which \$1,500,000 will be financed on a grant basis by the Asian Development Bank's (ADB) Technical Assistance Special Fund (TASF-V). The detailed cost estimate is presented in Table A4.2.

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

Item	Total Cost
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (34 person-months)	970.0
ii. National consultants (34 person-months)	225.0
b. International and local travel	55.0
2. Surveys	100.0
3. Miscellaneous administration and support costs	50.0
Total	1,500.0^b

^a Financed by ADB's TASF-V.

^b The government contribution will come in the form of counterpart staff, office space and office equipment, communication facilities for consultants, and other in-kind contributions. The value of government contribution is estimated at \$100,000.

Source: Asian Development Bank estimates.

D. Consulting Services

5. The PPTA consultant will be a firm providing 34 person-months of international consultants and 34 person-months of national consultants. Recruitment will be by quality- and cost-based selection method with a technical: financial weighting of 90:10.

6. The outline terms of reference for the project PPTA consultants are as follows:

- (i) Technical. Update protection, communication and dispatching protocols with Turkmenistan. Confirm Afghanistan demand to be supplied by Turkmenistan. Prepare feasibility study of 500-kV line and 500-kV HVDC B-B converter station. Propose line routing and substation layout. Prepare the project procurement plan with indicative timelines.
- (ii) Power Purchase and Sales Agreement (PPSA): Prepare PPSA for electricity trade with Turkmenistan.
- (iii) Economic and financial. Conduct analysis of project viability and sustainability and financial management assessment of DABS.
- (iv) Governance. Undertake financial management assessment including mitigating corruption risk and procurement capacity of the executing agencies.
- (v) Poverty and Social. Ensure compliance with core labor standards and or national labor laws. Conduct a social and poverty analysis to assess impact channels of the project.
- (vi) Safeguards. Prepare resettlement and indigenous peoples framework for the complete Multitranches Financing Facility (MFF) and land acquisition and resettlement plans (LARP) and the initial environmental examination (IEE) for the project following ADB's Safeguard Policy Statement (2009) and Afghanistan legislations.

7. The composition of the consultant team and their qualifications will be as follows:

International Consultant	Months of effort	Qualifications
Team Leader/ HVDC Specialist	6	Professional engineer, 20 years of experience
Expert Overhead Line	5	Professional engineer, 15 years of experience
Expert 500-kV Substation	5	Professional engineer, 15 years of experience
Expert Control and Protection	3	Professional engineer, 15 years of experience
Expert Civil Works	2	Professional engineer, 15 years of experience
Environment Specialist	3	Graduate in environmental studies, 15 years of
Social Safeguard Specialist	2	Graduate in social safeguard studies, 15 years of experience
Financial Specialist	3	Professional accountancy qualification (Certified Public Accountant or chartered accountant) and 15 years of experience
Economist	2	Graduate in economic studies, 15 years of experience
PPSA Specialist	3	Lawyer, 15 years of experience
All	34	

The team shall include national consultants corresponding to each international position with the same level of effort. National consultants shall be educated to degree level in the appropriate discipline with 10 years of experience.

E. Implementation Arrangements

8. The executing agency will be DABS who will provide counterpart staff, office space and office equipment, communication facilities and other in-kind contributions. Disbursement will be done in accordance with ADB's Technical Assistance Handbook (May 2010, as amended).

9. The proposed PPTA processing and implementation schedule is listed in Table A4.4.

Table A4.4: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Approval of Concept Paper	November 2013
Recruit Consultant	February 2014
Inception Report	March 2014
Interim report	May 2014
Draft final	June 2014
Draft bidding documents	August 2014
Final report	August 2014