

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. Bangladesh Government's Vision 2021 envisages developing an integrated and developed energy sector with a diversified fuel mix which will be the key driver of a sustainable national economy. It is projected that demand for electricity will increase to 20,000 megawatts in 2021. To meet the demand, the government committed to enhancing generation capacity through increasing gas production. Also, the government plans to diversify the use of primary fuels, such as gas and liquid fuel for power generation. To help the government achieve its goals, a project preparatory technical assistance (PPTA) is deemed necessary to prepare a holistic investment plan for the proposed multi-tranche financing facility (MFF) and conduct proper due diligence for Asian Development Bank (ADB) and other co-financiers' considerations.

B. Major Outputs and Activities

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

Table A4.1: Summary of Major Outputs and Activities

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Conducting project technical, economic, financial, governance, resettlement, environmental and social due diligence	July 2014	Inception Report	Jan 2014
		Interim Report	Feb 2014
		Draft Final Report	Apr 2014
		Final Report	May 2014

Source: Asian Development Bank estimates.

3. The PPTA will also assist executing agency and implementing agencies in conducting part of advance contracting activities, which includes but no limited to, preparation of (i) procurement packaging and bidding documents to be financed under Tranche 1; and (ii) requisite framework documents for Tranche 2 to ensure the project readiness and expedite project implementation.

C. Cost Estimate and Proposed Financing Arrangement

4. The PPTA is estimated to cost \$1 million equivalent in grant by ADB's Technical Assistance Special Fund (TASF-V). The government will provide counterpart supports in form of in kind contribution, which will include counterpart staff, technical data, office accommodation, communication facilities for consultants, and other in-kind contributions. The detailed cost estimate is presented in Table A4.2.

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

Item	Total Cost
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (24 person-months)	600.0
ii. National consultants (31 person-months)	183.0
b. International and local travel	71.0
c. Reports and communications	8.0

Item	Total Cost
2. Equipment	5.0
3. Workshops, training, seminars, and conferences ^b	13.0
4. Surveys	50.0
5. Miscellaneous administration and support costs ^c	1.0
6. Contingencies	69.0
Total	1000.0

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V)

^b Workshops, training, seminars, and conferences costs cover venue rental and food. It also includes printing, communications, courier, and other workshop-related expenses.

^c Miscellaneous administration and support costs cover translation and interpretation expenses as necessary.

Source: Asian Development Bank estimates.

D. Consulting Services

5. A consulting firm will be engaged for this PPTA with total positions and person-months as indicated in Table A4.3. Given the complexity of this MFF, the consulting firm will be recruited by quality and cost based selection methodology (QCBS) with 90:10 technical-cost weighting based on simplified technical proposal. The consulting firm will (i) conduct technical, economic, financial and governance due diligence, (ii) prepare project cost estimates, procurement plan and indicative implementation schedule, (iii) identify capacity building needs, and (iv) assess enabling environment for construction of liquefied natural gas(LNG) receiving terminals under public-private partnership (PPP) initiative. Apart from this, international and national environmental and social development specialists will be recruited on individual basis to ensure their immediate involvement in the process and early field activities. Consultants will be recruited following Guidelines on the Use of Consultants by ADB and Its Borrowers, April 2010.

Table A4.3: Summary of Consulting Services Requirement

Position	Person-Months Required	Position	Person-Months Required
International Consultants		National Consultants	
Gas Sector Specialist/Team Leader	4	Gas Sector Specialist/Team Leader	5
Energy Efficiency Specialist	3	Energy Efficiency Specialist	4
PPP Specialist	3	Lawyer	2
Natural Gas Economist	2	Natural Gas Economist	3
Financial Analyst	2	Financial Analyst	3
Financial Management Specialist	2	Financial Management Specialist	3
Environmental Specialist	3	Environmental Specialist	4
Social Development Specialist	3	Social Development Specialist	4
Bid Advisor/Transaction Specialist	2	Bid Advisor/Transaction Specialist	3
Total	24		31

PPP=public-private partnership

Source: Asian Development Bank Estimates.

6. The outline terms of reference for the PPTA international consultants are described below.

Position	Summary Tasks	Qualification
Gas Sector Specialist/Team Leader	<ul style="list-style-type: none"> • Manage consulting team and ensure quality output • Develop a detailed work plan and implantation schedule • Review the prevailing policy reforms in gas sector and assist Petrobangla in updating and finalizing Gas Sector Road Map. • Prepare gas sector assessment • Review the present status of the gas transmission and distribution networks plans for expansion, define/ evaluate the least-cost option for rehabilitation work. • Review the scope, capital and prepare cost estimates, implementation schedule and arrangements and contracting • Assess current natural gas pricing policies and recommend adequate pricing mechanism for project sustainability • Recommend necessary capacity building needs to ensure project sustainability • greenhouse gas reduction 	At least a university master degree with 20 year of experience in related area.
Energy Efficiency Specialist	<ul style="list-style-type: none"> • Review status of gas supply and transmission arrangements • Review technical specifications and present capacity of the existing transmission pipelines, and evaluate the potentials for rehabilitation and upgrading to ensure more efficient operations • Determine the general technical feasibility of rehabilitating and upgrading the existing pipeline system • Assess leakages of gas at various stages and conduct hazard analysis • Determine gas processing facilities and infrastructure that need to be developed for this purpose, and estimate the required investments 	At least a university bachelor degree with 15 year of experience in related area.
PPP Specialist	<ul style="list-style-type: none"> • Identify, review, and analyze the existing policy, regulatory, and institutional frameworks and capacity for private sector involvement in financing, constructing, operating and maintaining LNG terminals • Evaluate the constraints on the existing frameworks and capacities' abilities to enhance public sector financing capacity and attract private sector participation according to the Government's objectives • Determine the reforms necessary to establish the policy, regulatory, and institutional frameworks and capacity that will enable the Government to attract private finance for the development of LNG terminals in line with Government's objectives • Carry out a market assessment to consider demand risk and potential mitigations that may be available – including the consideration of any legislative or regulatory measures; and 	A master degree in business, finance, engineering or related field and at least 15 years' experience in related area

Position	Summary Tasks	Qualification
Natural Gas Economist	<ul style="list-style-type: none"> • Undertake project economic analysis • Assess economic and sustainability issues and carry out sensitivity and risk analysis • Identify uncertainties and risks of the projects • Assess social and gender impacts jointly with social development specialist 	At least a bachelor degree in economics and 15 years of relevant experience in economic analysis of projects
Financial Analyst	<ul style="list-style-type: none"> • Prepare detailed cost estimate • Establish an appropriate project structure consistent with prevailing legal and regulatory framework applicable to gas sector • Prepare project financing plan • Prepare cash flow projections for projects • Prepare a Financial analysis of the each sub-project using FIRR and WACC computations to evaluate the financial viability of the project, 	At least a bachelor degree in economics/ finance and 15 years of relevant experience in financial analysis of projects
Financial Management Specialist	<ul style="list-style-type: none"> • Assess financial management capabilities and financial performance, including internal control mechanism of EAs/IAs. • Design funds flow and disbursement mechanisms for the ensuing project, based on financial management assessment (FMA) of EA/IAs. • Identify any further capacity building (financial management and ADB's disbursement procedures) that will be necessary for the project, based on the results of the FMA. • Prepare EAs/IAs financial projections 	At least 10 years relevant experience and have a Master degree or equivalent in finance, or a relevant professional qualification such as a CA, CPA, CIMA etc. and have a good understanding of public financial management and international best practices in accounting and auditing
Environmental Specialist	<ul style="list-style-type: none"> • Prepare environmental assessment and review framework (EARF) for the entire MFF • Prepare initial environmental examination (IEE) reports for each tranche • Prepare environmental impact assessment (EIA), for the entire MFF • Prepare environmental management plans (EMPs) • Assess the possibility of obtaining clean development mechanism related support for possible greenhouse gas reductions • Ensure public consultation 	At least a bachelor degree in environmental science/ engineering and at least 15 years of experience in carrying environmental studies for projects, IEE and EIA preparation including for gas projects
Social Development Specialist	<ul style="list-style-type: none"> • Conduct social, gender and poverty analysis, and prepare a necessary strategy and measures • Prepare resettlement framework, indigenous peoples planning framework, for MFF and resettlement plans, indigenous peoples plan (IPP, if required) and for project components • Identify appropriate compensation methodologies where required • Incorporate all mitigation measures into cost estimates 	At least a bachelor degree in social development or related fields and at least 10 years of relevant experience

Position	Summary Tasks	Qualification
	<ul style="list-style-type: none"> Prepare a program/action plan for meaningful consultation 	
Bid Advisor	<ul style="list-style-type: none"> Conduct EA and IAs Procurement Capacity Assessment and prepare assessment report Prepare, with technical supports and inputs from other specialists, bidding documents and Request for Proposals for subprojects 	At least a bachelor degree with 15 years of experience in related area

7. The national consultants will have at least bachelor's degree with 7-year experience in the respective areas.

8. A national lawyer will be engaged to assist the PPP specialist in (i) assessing the regulatory framework in Bangladesh under PPP initiative in terms of construction and operation of LNG terminals, including potential application of the (draft) PPP law to energy sector; and (ii) analyzing any constrains for private sector participation in the activities mentioned above. The national lawyer shall preferably have a master's degree in law with at least 15 years of experience in Bangladesh PPP and corporate legislation.

E. Implementation Arrangements

9. Gas Transmission Company Limited (GTCL) and Titas Gas transmission and distribution Company Limited (TGTDC) will be the executing agencies for transmission and distribution component respectively. Bangladesh Oil, Gas & Minerals Corporation (Petrobangla) will be the executing agency for capacity development component and project implementation coordination. Project management units (PMUs), headed by senior officers, will be set up in each of the EA to conduct day-to-day work and PPTA activities. All the EAs will provide in kind contribution in form of counterpart staff, communication facilities, office accommodation and project data and information. Disbursements under the PPTA will be made in accordance with ADB's Technical Assistance Disbursement Handbook (May 2010, as amended).

10. 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	Sept. 2013
Recruitment of Consulting Firm	Dec. 2013
Inception Report	Jan 2014
Interim Report	Feb 2014
Draft Final Report	Apr 2014
Final Report	May 2014
Physical Completion	Jul 2014
PPTA Financial Closure	Aug 2014

Source: Asian Development Bank estimates.