

PROJECT PREPARATORY TECHNICAL ASSISTANCE
(Demand-Side Energy Efficiency Investment Project)

A. Justification

1. A technical assistance (TA) is required to conduct due diligence on the proposed loan from the Asian Development Bank (ADB) and support implementation of the subprojects to be supported through the loan and Global Environment Facility (GEF) grant administered by ADB. Phase 1 of the TA will conduct project due diligence covering technical, economic, financial, procurement, and social and environmental safeguards. Phase 2 will provide implementation and capacity development support, including individual subproject preparation, assessment of benefits and scope for expansion, and will also explore potential new business lines for Energy Efficiency Services Limited (EESL). A separate evaluation of the impact of subprojects will also be conducted.

B. Major Outputs and Activities

2. The outputs of Phase 1 of the TA are a fully prepared loan and grant, including completed social and environmental analysis, technical, economic and financial due diligence.

3. The major outputs and activities from Phase 1 of the TA are summarized in Table A3.1.

Table A3.1: Summary of Major Outputs and Activities of TA Phase 1

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
1. Fielding individual consultants	February 2016	Deliverable 1: Inception Report	March 2016
2. Conduct due diligence	June 2016	Deliverable 2: Draft Final Report	July 2016
3. Finalize summary of recommendations from due diligence	July 2016	Deliverable 3: Final Report	August 2016

Source: Asian Development Bank estimates.

4. The outputs of Phase 2 of the TA are additional fully prepared subprojects and evaluation of potential new business lines for EESL. For each subproject, the preparation process will include (i) energy audits: top down analysis and unit sampling; (ii) energy savings potential: identification of appropriate efficient technology and estimated savings from efficient technology deployment; (iii) demonstration of energy savings: deployment of efficient technology to verify energy savings potential; (iv) financial analysis: estimated cost savings, financial capacity of the distribution utilities, and development of funds flow arrangement; and (v) benefits analysis: evaluation of the impacts to various stakeholder groups. A gender specialist will work with the team preparing the subprojects to maximize gender benefits, and develop and implement women-targeted interventions. The potential for new business lines will involve (i) participation in international training and workshops to discuss international best practice and new opportunity areas for EESL; (ii) energy evaluation to identify major use categories and opportunities for efficiency improvements; (iii) technology evaluation to include availability in India and cost-effectiveness; (iv) outreach to consumers to build awareness and assess technology suitability and consumer acceptance; (v) demonstration of technology, if appropriate, along with energy savings realized; and (vi) evaluation of the potential to deploy technology at relevant spatial scale (municipality, state, and/or country level).

5. The major outputs and activities from Phase 2 of the TA are summarized in Table A3.2.

Table A3.2: Summary of Major Outputs and Activities of TA Phase 2

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
1. Fielding consultants	June 2016	Deliverable 1: Inception Report	July 2016
2. Subproject preparation	Ongoing	Deliverable 2: Subproject DPRs	Ongoing
3. Evaluation of new potential business lines	March 2018	Deliverable 3: Summary Report	April 2018

Source: Asian Development Bank estimates.

C. Cost Estimate and Proposed Financing Arrangement

6. The TA is estimated to cost \$1,150,000 equivalent; \$1,000,000 will be financed on a grant basis by the Clean Energy Fund¹ under the Clean Energy Financing Partnership Facility and \$150,000 will be financed on a grant basis by the Global Environment Facility.² EESL will provide counterpart support in the form of counterpart staff, provision of office space, communication facilities for consultants, and other in-kind contributions. The detailed cost estimate is presented in Table A3.3.

Table A3.3: Cost Estimates and Financing Plan
(\$'000)

Item	Total Cost
Asian Development Bank^a	
1. Consultants; Phase 1	
a. Remuneration and per diem	
i. International consultants (16 person-months)	350.0
ii. National consultants (18 person-months)	96.0
b. International and local travel	76.0
2. Consultants; Phase 2, subproject preparation	
a. Remuneration and per diem	
i. National consultants (42 person-months)	300.0
b. International and local travel	80.0
3. Consultants; Phase 2, new opportunity evaluation	
a. Remuneration and per diem	
i. National consultants (8 person-months)	48.0
b. Local travel	7.0
c. Equipment ³	50.0
4. Consultants; Phase 2, communication strategy implementation	
a. Remuneration and per diem	
i. National consultants (12 person-months)	72.0
b. Local travel	20.0
5. EESL participation in seminars and workshops	
a. International and local travel	10.0
6. Contingencies	41.0
Total	1,150.0

EESL = Energy Efficiency Services, Limited.

^a Financed by the Clean Energy Fund under the Clean Energy Financing Partnership Facility (\$1,000,000) and the Global Environment Facility (\$150,000) and administered by the Asian Development Bank.

Source: Asian Development Bank estimates.

¹ Financing Partners: the Governments of Australia, Norway, Spain, and Sweden.

² The Global Environment Facility has approved a project preparation grant of \$150,000 in June 2015 for administration by ADB.

³ All equipment purchased under the TA will be turned over to EESL at TA completion.

D. Consulting Services

7. Phase 1 of the TA will require 16 person-months of international consulting and 18 person-months of national consultants, and the gender and financial specialists will also provide support during the subproject preparation. Phase 2 of the TA will also require 62 person-months of national consulting services. ADB will hire individual consultants for project preparatory work and a firm to support project implementation, implement the communication strategy, and evaluate new business opportunities. All hiring will be done in accordance with the *Guidelines on the Use of Consultants* (2013, as amended from time to time). For recruiting a firm, quality- and cost-based consultant selection method with 90:10 ratio will be used. The proceeds of the TA will be disbursed in line with ADB's *Technical Assistance Disbursement Handbook* (May 2010, as amended from time to time). Table A3.4 reflects required services. Lump-sum payments and output-based contracts will be considered for consulting services under the TA.

Table A3.4: Summary of Consulting Services Requirement

International Name of Positions	Person-months	National Name of Positions	Person-months
Energy Efficiency Specialist (Phase 1)	4.0	Procurement Specialist (Phase 1)	4.0
Economist/Financial Specialist (Phase 1)	5.0	Financial Specialist (Phase 1 and 2)	11.0
Communication Specialist (Phase 1)	3.0	Institutional Specialist (Phase 1)	4.0
Environmental Specialist (Phase 1)	3.0	Gender Specialist (Phase 1 and 2)	8.0
Social Development Specialist	1.0	Energy Efficiency Specialists (Phase 2)	41.0
		Communication Specialists (Phase 2)	12.0
Total:	16.0		80.0

Source: Asian Development Bank staff estimates.

8. The outline terms of reference for the TA consultants are described below.

Position	Summary Tasks	Qualification
Energy Efficiency Specialist (International, 4 person-months)	<ul style="list-style-type: none"> Assess sector development plan and policy environment to support its implementation. Evaluate EESL's project implementation process, portfolio performance, project sustainability, and scaling potential. Develop a monitoring framework for project performance tracking. Provide inputs into the design of GEF funded investments in new energy efficient technologies and segments. 	Minimum 10 years of experience working in energy efficiency and project delivery through ESCOs.
Economist/Financial Specialist (International, 5 person-months)	<ul style="list-style-type: none"> Review cost estimates and project financial viability following ADB's requirements. Conduct economic analyses following ADB's requirements based on demand and supply forecasts and least cost alternatives. Design of GEF revolving fund architecture. 	Extensive experience in financial and economic modeling of energy projects for MDBs.
Communication Specialist (International, 3 person-months)	<ul style="list-style-type: none"> Review existing communication plans and develop gender-sensitive communication strategy for the project; develop a detailed work plan for delivery of the strategy. 	5 years of international experience designing and running communications programs.
Social Development Specialist (International, 1 person-months)	<ul style="list-style-type: none"> Conduct a socioeconomic analysis. Help prepare all required social safeguard documents ensuring conformity with ADB policy and government guidelines. 	10 years of relevant experience, including with ADB.
Environmental Specialist (International, 3 person-months)	<ul style="list-style-type: none"> Review feasibility studies and conduct site visits to assess conformity with ADB Safeguard Policy Statement and Government requirements for ADB 	10 years of experience preparing and reviewing initial environmental examinations

Position	Summary Tasks	Qualification
	loan and GEF grant. <ul style="list-style-type: none"> Prepare documents and/or templates, as required, to facilitate compliance with environmental requirements during project implementation. 	for energy projects, including for ADB.
Procurement Specialist (National, 4 person-months)	<ul style="list-style-type: none"> Review EESL's procurement system and draft risk assessment and mitigation measures. Identify areas for further assessment or modification. 	10 years of experience handling procurement in the public sector; including with MDB guidelines.
Financial Specialist (National, 11 person-months)	<ul style="list-style-type: none"> Finalization of cost estimates, financial analysis, financial management assessment. Support design GEF revolving fund, including review of legal status, governance framework, standards, operational measures, auditing systems, M&E and reporting requirements. 	5 years of financial assurance experience; Masters in Finance or relevant professional qualification.
Institutional Specialist (International, 4 person-months)	<ul style="list-style-type: none"> Review EESL's business plan and assess institutional capacity to carry out activities described therein. Assess EESL's market position. 	10 years of experience, including in assessing business plans and identifying related needs.
Gender Specialist (National, 8 person-months)	<ul style="list-style-type: none"> Identify means of maximizing benefits to women in subproject design and design and implement women-targeted interventions. 	10 years of experience in gender assessment.
Energy Efficiency Specialists (National, 41 person-months)	<ul style="list-style-type: none"> Preparing subproject baselines, energy savings estimates, and estimated annuities. Analytical activities in support of EESL's strategic growth, including sector and market assessment of proposed new energy efficient investment areas funded by the GEF. 	5 years of experience in energy efficiency project design and implementation.
Communication Specialists (National, 12 person-months)	<ul style="list-style-type: none"> Develop relevant communications tools and train relevant stakeholders to use these materials. 	5 years of experience in communication research and training.

ADB = Asian Development Bank, EESL = Energy Efficiency Services, Limited, ESCO = energy service company, GEF = Global Environment Facility, M&E = monitoring and evaluation.

E. Implementation Arrangements

9. EESL will be the executing agency for the TA. In-kind contributions would be provided by the government and EESL. The TA will be implemented in 2016–2018.

10. The proposed TA processing and implementation schedule from February 2016 to April 2018 is listed in Table A3.5.

Table A3.5: Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
TA approval	February 2016
Consultant recruitment	February 2016
Draft final report—Phase 1	July 2016
Draft final report—Phase 2	March 2018
Physical completion of TA—Phase 2	April 2018

Source: Asian Development Bank estimates.