

## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1. The Government of the Socialist Republic of Viet Nam has requested a project preparatory technical assistance (PPTA) from the Asian Development Bank (ADB) to conduct assessments to prepare an investment project for development of power distribution system in Viet Nam. The investment project will follow sector project modality. Implementing agencies are four of the power corporations (PCs) of Vietnam Electricity (EVN): (i) Northern Power Corporation, (ii) Central Power Corporation, (iii) Southern Power Corporation, and (iv) Hanoi Power Corporation.

### B. Major Outputs and Activities

2. Consultants shall provide services to assess all aspects of the project and provide sufficient data, information, and inputs to prepare project appraisal documents for loan approval by ADB and project documents required by the PCs for obtaining approval from EVN and the government. The major outputs and activities are in Table A3.1.

**Table A3.1: Summary of Major Outputs and Activities**

<ol style="list-style-type: none"> <li>1. Assessment of government's power distribution system development plan in accordance with PDP VII, PCs' 5-year investment plan, and select feasible, priority scope for the project (Nov 2016)</li> <li>2. Assessment of anticorruption, integrity, and other institutional aspects and mechanisms of PCs</li> <li>3. Review Viet Nam existing distribution code and smart grid roadmap, and establish standards for the project based on advanced technologies and good international practices (Dec 2016)</li> <li>4. Financial management assessment of the four PCs including the risk assessment (Dec 2016)</li> <li>5. Governments on-lending mechanism / fund flow / fund allocation among the four PCs (Dec 2016)</li> <li>6. Assess the aspects of the project that support private sector development (Apr 2017)</li> <li>7. Procurement risk assessment, markets assessment, and state-owned enterprises participation (Dec 2016)</li> <li>8. Project risks assessment and risk management plan (Mar 2017)</li> <li>9. Establish well-defined performance indicators, baseline data, and targets for the project (Dec 2016)</li> <li>10. Project feasibility studies and design of multiple subprojects (May 2017)</li> <li>11. Project implementation arrangements, project management and implementation units (Apr 2017)</li> <li>12. Project cost estimate, broken down by components, and subprojects (Apr 2017)</li> <li>13. Project financial and economic evaluation including the assessment of cost recovery mechanisms, tariff policy and structure (Apr 2017)</li> <li>14. Procurement plan for multiple subprojects, procurement packaging and master bidding documents (Apr 2017)</li> <li>15. Project Implementation plan, reporting and monitoring mechanism (Apr 2017)</li> <li>16. Environmental assessment and review framework (Dec 2016)</li> <li>17. Initial environmental examinations and environmental management plans for core subprojects (Apr 2017)</li> <li>18. Design project consultation and information disclosure plan (Apr 2017)</li> <li>19. Resettlement and indigenous peoples framework (Dec 2016)</li> <li>20. Social and poverty impacts assessment, indigenous people plan, land acquisition and resettlement plans if any, and also assess possible means to promote gender equality or empower women (Apr 2017)</li> <li>21. Assess loss reduction benefits of the project and quantify greenhouse gas emission reductions (Apr 2017)</li> <li>22. Draft project administration manual (Apr 2017)</li> <li>23. Advance actions, and Bid documents for first core subprojects (Jun 2017)</li> <li>24. Identify suitable threshold for appraisal of subprojects (in physical or financial terms), eligibility criteria, and selection procedure for subsequent subprojects (Jun 2017)</li> <li>25. Assessment of capacity of four PCs in system planning, project design and project management (Apr 2017)</li> <li>26. Prepare capacity development programs and a plan for staff retention (Jun 2017)</li> <li>27. Administer workshops and training under the technical assistance (Q2 2017)</li> <li>28. Assess suitable lending modalities for similar projects and recommend most efficient lending modality for subsequent projects (Jun 2017)</li> </ol>
---

PC = Power Corporation, PDP VII = Seventh Power Development Plan 2011–2020.

### C. Cost Estimate and Financing Plan

3. The TA is estimated to cost \$1,100,000 equivalent, of which \$1,000,000 will be financed on a grant basis by the ADB Technical Assistance Special Fund (TASF-V). The government will

provide counterpart support for the TA in the form of counterpart staff, office space, office supplies and internet access, and other in-kind contributions with an estimated value of 10% of the total cost of the TA. A detailed cost estimates and financing plan are presented in Table A3.2.

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

Item	Total Cost
<b>Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (24 person-months)	600.0
ii. National consultants (28 person-months)	120.0
b. International and local travel	100.0
c. Reports and communications	12.0
2. Equipment (computer, printer, etc.) <sup>b</sup>	10.0
3. Workshops, training, seminars, and conferences <sup>c</sup>	30.0
4. Surveys	16.0
5. Miscellaneous administration and support costs <sup>d</sup>	12.0
6. Contingencies	100.0
<b>Total</b>	<b>1,000.0</b>

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-V)

<sup>b</sup> Equipment: The equipment will be turned over to the power corporations upon completion of PPTA.

Type	Quantity	Cost
Printer (1 black and white, 1 color)	3	3,000
Photocopier/scanner	1	2,000
color plotter	1	5,000

<sup>c</sup> Workshops, training, seminars, and conferences

Purpose	Venue
Conference on investment plan in the transmission and distribution system	Ha Noi
Consultation workshop on the investment project	Ha Noi
Capacity building programs	to be confirmed

Note: It is not expected to have representation costs, such as alcoholic beverages in any of the events

<sup>d</sup> Costs for translation, printing, office supplies, communications, etc.

PPTA = Project Preparatory Technical Assistance, TASF = Technical Assistance Special Fund.

Note: The value of the in-kind government contribution is estimated at 9% of the total TA cost.

Source: Asian Development Bank estimates.

## D. Consulting Services

4. A consulting firm will be engaged to provide a total of about 52 person-months of consulting services as in Table A3.3 following the quality- and cost-based selection (QCBS) method with a quality-cost ratio of 90:10, and using Full Technical Proposals. The consultants will report to ADB. The team leader will be the power distribution expert. All the national staff shall have a good command of English. The outline terms of reference for the PPTA consultants are described in paras. 5–14.

**Table A3.3: Summary of Consulting Services Requirement**

International Experts	Person-months	National Experts	Person-months
Team leader and power distribution expert	10	Distribution engineer	8
System planning specialist	2	Substation specialist	3
Smart grid specialist	2	Financial management specialist	4
Power system economist	2	Resettlement specialist	5
Financial management specialist	2	Environment specialist	4
Resettlement specialist	2	Procurement specialist	4
Environmental specialist	2		
Procurement specialist	2		
<b>Total person-months</b>	<b>24</b>	<b>Total person-months</b>	<b>28</b>

Source: Asian Development Bank estimates.

5. **Team Leader/Power Distribution Expert (international: 10 person-months).** The expert should have a degree in electrical engineering, minimum 15 years of experience in a power distribution utility and advising utility management globally. The expert will assess the PCs capacity in: system planning; financial management, accounting, and internal control; project design and management; and monitoring and evaluation with the support of the team. The team leader is responsible for coordinating the team of experts and consolidating and delivering high quality of deliverables outlined Table A3.1.
6. **Deputy Team Leader/Power Distribution Engineer (national: 8 person-months).** The expert should have a degree in electrical engineering, utility experience, and minimum eight years of experience in power distribution sector. The expert will review the existing distribution code comparative to international standards and propose standards based on latest technologies; assess the measuring systems of reliability indices and the power system losses, and identify data collection process to monitor project performance indicators; and translate all relevant materials into English. The expert will work with the team leader to coordinate the team of experts and is responsible for consolidating and ensuring high quality of the deliverables.
7. **System Planning Specialist (international: 2 person-months).** The expert should preferably have at least a master's degree in electrical engineering and minimum 8 years of experience in power system planning. The expert shall review the demand forecast, distribution system planning process, system planning capacity of PCs, and recommend the following: (i) gaps in the distribution system planning and actions to bridge the gaps, (ii) an action plan to establish sustainable planning function in each PC, (iii) training program, and (iv) key indicators to monitor implementation of above.
8. **Substation Expert (national: 3 person-months).** The expert should have a degree in electrical engineering, with a minimum of 10 years extensive experience in design, construction, and operation and maintenance of substations. The expert shall conduct a condition assessment of the substations that require upgrading, review standards, and propose advanced technologies to adopt for the project.
9. **Smart Grid Expert (international: 2 person-months).** The expert should preferably have at least a master's degree in electrical engineering or information and communication technology, with extensive experience in the advanced smart grid technologies. The expert will review the government smart grid roadmap and ongoing pilot activities. The expert's major outputs are smart grid options for adoption in the project and a preliminary design report.
10. **Financial Expert (international: 2 person-months, national 4 person-months).** The experts will have a chartered accountancy degree, MBA (Finance/Accounting), CPA or comparable qualification from a reputable institution, with at least 15 years of relevant financial experience and with extensive experience working directly on ADB/World Bank power sector projects in Asia. The expert will undertake the following tasks: (i) detailed project cost estimates and financing plans; (ii) financial analysis of the project, including the financial rate of internal return (FIRR), net present value, weighted average cost of capital; (iii) assess risks to the project's revenues and costs, and conduct sensitivity analyses on the FIRR against these variables; (iv) financial management assessment (FMA) of the four PCs including planning and budgetary control, financial and management accounting practices and procedures, internal control, and auditing; (v) design funds flow and disbursement mechanisms for the ensuing project, based on the results of the FMA; (vi) assessment of capacity to administer imprest fund/SOE procedures; and (vii) financial performance and projections of four PCs and EVN, and where appropriate recommend financial covenants.
11. **Power System Economist (international: 2 person-months).** The expert should preferably have a degree in finance, economics and/or business administration, and have minimum 8 years of experience in power system economic analysis, and experience with ADB

(or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) assess the economic benefits of the project, and (ii) conduct project economic analysis covering 10 key areas of economic analysis under the ADB Guidelines.

**12. Environmental Safeguards Experts (international: 2 person-months, national: 4 person-months).** The international expert should preferably have at least a master's degree in environmental science or similar, and have extensive experience in technical assistance of development agencies similar to ADB, particularly, in the power sector. The national expert should preferably have a degree in environmental science and should have minimum six years of experience in environmental impact assessment of similar projects. Under the guidance of ADB's safeguards specialist, the experts will undertake the following tasks including the preparation of relevant appendices and sections of the Report and Recommendation of the President, in accordance with the relevant guidelines and policies for environmental assessment and ADB Safeguards Policy Statement (2009): (i) prepare environmental assessment and review framework for the overall sector project, (ii) support the four PCs to conduct initial environmental examination of the core subprojects including environmental audit of facilities that will be rehabilitated, and (iii) prepare environmental management plans of the core subprojects.

**13. Social Safeguards Experts (international: 2 person-months, national: 5 person-months).** The international expert should preferably have a master's degree in sociology, anthropology or similar, and have extensive experience preparing resettlement and other social development plans in accordance with ADB/World Bank/IFC guidelines. The national expert should preferably have a degree in sociology, anthropology or similar, and should be familiar with Viet Nam social safeguards policy. The experts together will: (i) collect adequate data and prepare resettlement and indigenous peoples plans and a resettlement framework, as required, conforming to ADB's Safeguards Policy Statement (2009); (ii) support the government initiate a participatory process for resettlement and indigenous peoples plans preparation; (iii) assess the capacity of the responsible institutions to prepare, update, and implement resettlement and indigenous peoples plans, and propose training programs; (iv) prepare involuntary resettlement and indigenous peoples categorization checklists; (v) conduct socioeconomic surveys; (vi) review the government policies and strategies for poverty reduction and gender development; (vii) conduct a public perception survey to identify public problems and development priorities; (viii) conduct a poverty and social analysis; (ix) prepare a poverty and social strategy; and (x) prepare a gender action plan and other social action plans, if required.

**14. Procurement Experts (international: 2 person-months, national: 4 person-months).** The specialists should preferably have 10 years' experience in procurement in power sector projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The specialists' tasks will include but are not limited to: (i) undertake the project procurement risk assessment, including procurement capacity assessment of four PCs, and prepare risk assessment report; (ii) develop suitable contract packaging and assist the four PCs to prepare a procurement plan covering the whole implementation period of procurement activities for multiple subprojects in accordance with ADB Procurement Guidelines (2015, as amended from time to time); and (iii) prepare master bidding documents for each type of contract to be procured under the project including specifications.

## **E. Implementation Arrangements**

15. The PPTA will be implemented during 1 September 2016–31 December 2017. ADB is the executing agency of the PPTA. The PCs will provide counterpart support in the form of counterpart staff, provision of office space, communication facilities for consultants, and other in-kind contributions. Disbursements under the PPTA will be done in accordance with the ADB's *Technical Assistance Disbursement Handbook* (March 2010, as amended from time to time). The proposed TA processing and implementation schedule is in Table A3.4.

**Table A3.4: Technical Assistance Processing and Implementation Schedule**

<b>Major Milestones</b>	<b>Expected Completion Date</b>
Contract negotiations	Aug 2016
Consultants fielding	1 Sep 2016
Inception report submission	Oct 2016
Support in fact finding mission	Apr 2017
Project start-up support including bidding documents	May-Dec 2017
Draft final report	May 2017
Submission final report	Dec 2017
Technical assistance closure	31 Dec 2017

Source: Asian Development Bank.