

PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The Government of the Socialist Republic of Viet Nam has requested the Asian Development Bank (ADB) for a project preparatory technical assistance (PPTA) to conduct a feasibility study and prepare the relevant project documents for an investment project to support the government's rural electrification (RE) program in Viet Nam for achieving its targets of 99.89% electrification by 2020.

2. According to the government's RE program, Viet Nam's electrification rate is expected to reach 98% by 2015. The RE program will focus on electrification of the remaining 2% of rural households and rehabilitation of distribution networks across 48 provinces. The RE program in 26 provinces will be undertaken by the EVN and in the other 22 provinces will be undertaken by the respective PPCs. The proposed project will finance a portion of the government's overall RE program and will be implemented by EVN's three PCs and five PPCs.

B. Major Outputs and Activities

3. The preparation of the project should include: (i) rationale/justification of the rural electrification project; (ii) assessments of the project sites proposed by the government; (iii) full feasibility study for the selected project sites; and (iv) preparation of all project documents required by ADB for the investment of the project.

4. The TA major outputs and activities are summarized in Table A3.1.

Table A3.1: Summary of Major Outputs and Activities

| Major Activities | Expected Completion Date | Major Outputs | Expected Completion Date |
|---|--------------------------|--|--------------------------|
| 1 Initial review of relevant documents and previous ADB's and WB's projects | May 2016 | Inception report | September 2016 |
| 2 Review institutional structure , and PPC and utility management practices | July 2016 | Report on institutional structure , and PPC and utility | October 2016 |
| 3 Technical design and draft bidding documents for rural electrification | April 2017 | Technical report including engineering design, cost estimate, procurement plan and draft bidding documents | June 2017 |
| 4 Preparation of institutional capacity development program and safeguard document. | April 2017 | Programs on capacity development, and IEE, RP, EARF and RF | June 2017 |
| 5 Preparation of draft final feasibility report | June 2017 | Draft RRP and linked-documents | July 2017 |
| 6 Updating of RRP (as necessary) | September 2017 | Updated draft RRP and linked-documents | October 2017 |

Source: Asian Development Bank estimates.

C. Cost Estimate and Proposed Financing Arrangement

5. The TA is estimated to be in the amount of \$1,000,000 financed by ADB's Technical Assistance Special Fund-V. The detailed cost estimate is in Table A3.2.

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

| Item | Total Cost |
|--|----------------|
| Asian Development Bank^a | |
| 1. Consultants | |
| a. Remuneration and per diem | |
| i. International consultants (23 person-months) | 590.0 |
| ii. National consultants (27 person-months) | 120.0 |
| b. International and local travel | 110.0 |
| c. Reports and communications | 10.0 |
| 2. Equipment (computer, printer, etc.) ^b | 15.0 |
| 3. Workshops, training, Seminars, and conferences ^c | 20.0 |
| 4. Vehicle ^d | 15.0 |
| 5. Surveys | 10.0 |
| 6. Miscellaneous administration and support costs ^e | 10.0 |
| 7. Contingencies | 100.0 |
| Total | 1,000.0 |

Note: The TA is estimated to at \$1,200,000 equivalent, of which \$1,000,000 equivalent will be finance by ADB's TA funding program. The Government will finance the remaining \$200,000 equivalent in-kind.

^a Financed by the Technical Assistance Special Fund-V.

^b Equipment. The equipment will be turned over to the MOIT and EVN upon completion of PPTA.

| Type | Quantity | Cost |
|-----------------------------|----------|-------|
| computer | 4 | 5,000 |
| Photocopier/printer/scanner | 1 | 4,000 |
| x-y color plotter | 1 | 6,000 |

^c Workshops, training, seminars, and conferences administered by consultants.

| Purpose | Venue |
|--|-----------------------|
| Conferences and training on project management | Ha Noi, Project sites |
| Workshops for environmental and social impact assessment | Ha Noi, Project Sites |

^d Vehicle

| Justify the use of and the need to lease a vehicle | Expected length of use |
|--|------------------------|
| Transportation for site visits to each province | 120 days |

^e Costs for translation, printing, office supplies, communications, etc.

Source: Asian Development Bank estimates.

D. Consulting Services

6. The PPTA will be implemented over a period of 21 months from 1 June 2016 to 30 April 2018. International and national consultants will be engaged to assist in TA implementation in accordance with ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time). The team will include 23 person-months of international consultant inputs and 27 person-months of national consultant inputs recruited through a firm, using quality- and cost-based selection (QCBS) with quality-cost ratio of 90:10 and using full technical proposals. Procurement of goods (equipment) will be in accordance with ADB Procurement Guidelines (2015, as amended from time to time). A summary of consulting services requirements is in Table A3.3.

Table A3.3: Summary of Consulting Services Requirement

| International Experts | Person-months | National Experts | Person-months |
|-----------------------|---------------|------------------|---------------|
|-----------------------|---------------|------------------|---------------|

| | | | |
|--|-----------|---|-----------|
| Team Leader/Rural Electrification Expert | 6.5 | Deputy Team Leader/Rural Electrification Expert | 7 |
| Distribution Engineer | 4 | Distribution Engineer | 4 |
| Procurement Specialist | 3 | Procurement Specialist | 3 |
| Power System Economist | 1.5 | Power System Economist | 2 |
| Financial Specialist | 3 | Financial Specialist | 3 |
| Environmental Specialist | 2 | Environmental Specialist | 3 |
| Social Safeguards Specialist | 3 | Social Safeguards Specialist | 5 |
| Total person-months | 23 | | 27 |

Source: Asian Development Bank estimates.

7. The outline terms of reference for the TA consultants are described in paras. 8 to 14.

8. **Team Leader/Rural Electrification Expert** (6.5 person-months of international, 7 person-months of national). The team leader should preferably have 15 years experiences (international) [8 years (national)] in rural electrification and related projects, and experience with ADB funded projects. The experts will be responsible for the execution of the entire PPTA and its outputs. The experts' tasks will include but are not limited to: (i) carry out technical designs; (ii) prepare the detailed cost estimate; (iii) recommend efficient implementation arrangements among MOIT, PPCs, EVN and PCs; (iv) prepare a procurement plan and master bidding documents in accordance with ADB's *Procurement Guidelines (2015, as amended from time to time)*; (v) assist the EAs drafting the project outline (PO); (vi) provide training for EAs and IAs staff; and (vii) prepare all project documents required by ADB project team.

9. **Distribution Engineer** (4 person-months of international; 4 person-months of national). The experts should preferably have 10 years experiences (international) [8 years (national)] in rural electrification and related projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) producing technical designs including medium voltage substations, and (ii) preparing a detailed list of equipment/materials, bill of quantities and technical specifications.

10. **Procurement Specialist** (3 person-months of international; 3 person-months of national). The experts should preferably have 10 years experiences (international) [8 years (national)] in procurement in power and related projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) undertaking and preparing the Project Procurement Risk Assessment including procurement capacity assessment, (ii) developing suitable contract packaging and assist the EA to prepare a procurement plan covering the whole implementation period of procurement activities for multiple subprojects in provinces, and (iii) preparing Master Bidding Documents for each type of contract to be procured.

11. **Power System Economist** (1.5 person-months of international; 2 person-months of national). The experts should preferably have 10 years experiences (international) [8 years (national)] in power system economic analysis and related projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) assessing the economic benefits of the project and develop a methodology to define the benefits of the project and then quantify them; (ii) specifying indicators to monitor the project benefits and establish procedures and provide cost estimates for benefit monitoring and evaluation; and (iii) undertaking the 10 Keys Areas of Economic Analysis including demand and least cost analysis, among others.

12. **Financial Specialist** (3 person-months of international, 3 person-months of national). The experts should have at least 15 years (international) [8 years (national)] experience in project financial analysis in power and related projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) conduct a financial evaluation of project, and financial analysis of EAs and IAs; (ii) prepare detailed project cost estimate tables in RRP and PAM and S-curve for the proposed investment project; (iii) prepare a financing plan for the project, any prospective co-financing, all relevant financial costs; and (iv) assess IAs' financial management capabilities and provide recommendations for institutional strengthening of financial management.

13. **Environmental Specialist** (2 person-months of international; 3 person-months of national). The experts should preferably have 10 years experiences (international) [8 years (national)] in environmental safeguards in power and related projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) conduct and prepare an initial environmental examination (IEE) for the distribution medium voltage substations and distribution networks; (ii) prepare an environmental management plan (EMP); and (iii) conduct an environmental audit of the project, if necessary.

14. **Social Safeguards Specialists** (3 person-months of international; 5 person-months of national). The experts should preferably have 10 years experiences (international) [8 years (national)] in social, gender and resettlement safeguards in power and related projects, and experience with ADB (or other Multilateral Development Bank) funded projects. The experts' tasks will include but are not limited to: (i) conduct gender analysis in accordance with ADB Gender and Energy Toolkit including collection of sex-disaggregated baseline data; (ii) prepare a project gender action plan; and (iii) prepare resettlement plans, if any.

E. Implementation Arrangements

15. The project has two EAs which are EVN and the Department of Power Grid and Rural Electrification in MOIT. The IAs are three power corporations under EVN and five PPCs under the Department of Power Grid and Rural Electrification.

16. The IAs are responsible to work with the consulting firm on regular basis. The government's in-kind contribution will be the provision of counterpart staff and staff time, office space and basic equipment, and other logistical support. MOIT and EVN/PCs will provide all available reports, existing studies and data related to the project.

17. The proposed TA processing and implementation schedule is listed in Table A3.4.

Table A3.4: Technical Assistance Processing and Implementation Schedule

| Major Milestones | Expected Completion Date |
|--|---------------------------------|
| Project preparatory TA approval | December 2015 |
| Signing of project preparatory TA acceptance by the government | February 2016 |
| Recruitment of project preparatory TA consultant | February-May 2016 |
| Project preparatory TA implementation period | June 2016-April 2018 |
| Submission of interim report | January 2017 |
| Submission of draft feasibility study | July 2017 |
| Submission of final feasibility study | November 2017 |

TA = technical assistance.

Source: Asian Development Bank staff estimates.