

Terms of Reference

Renewable Energy Small Power Purchase Arrangements

Background

<Brief description of country characteristics, potential of renewable energy for electrification of unserved populations, objectives and scope of proposed Bank operations >

Objective

The objective of this consultancy is to: 1) develop a standardized power purchase agreement (SPPA) document that would be provided to small power producers who would contract to sell electricity at a non negotiable, published (advertised) power purchase tariff; 2) develop recommendations for a power purchase tariff and 3) build the capacity of small power producers to utilize this SPPA to invest in renewable energy small power production.

Scope of Work

Consultancy services required consist of the following three tasks: 1) Preparation of a Standardized Small Power Purchase Agreement, 2) Preparation of a Small Power Purchase Tariff and 3) Workshop on Development of Small Power Projects.

Task I Preparation of a Standardized Small Power Purchase Agreement

The tasks are expected to be carried out by a PPA specialist and a tariff specialist.

1. Workshop on principles of SPPAs and Purchase-tariffs. The consultants shall organize a workshop in which the principles of SPPAs, Purchase-tariffs and their commercial elements will be discussed. Similar small power purchase agreements from other countries as well as any currently used locally will be used for illustration. The workshop will help to define preliminary recommendations for SPPA-outline and the tariff calculation methodology. Proposed participants of the workshop are relevant ministries, the utility, Private Developers, Banks etc.

2. Prepare Draft PPA. The consultants shall study operational, legal, and administrative implications arising from the grid connection of privately owned power plants. Based on this knowledge and the guidance received from the Government and the utility during the training workshop, the consultant shall develop a draft PPA document. The document describes in simple and easy to understand language, the power purchase tariff and the rights and obligations of both the Govt/PC and the small power producer, including interconnection arrangements, metering, network protection, safety, coordination requirements, penalties for default, dispute resolution, changes in future pricing, etc. Contract terms and specifications shall be in accordance with accepted practice, laws and regulations in the country.

3. Workshop to Discuss PPA. The PPA consultant shall travel to the country to discuss the draft SPPA with relevant government agencies, the three Power Companies and potential project developers. The PPA specialist will be responsible for explaining the standard provisions and the initial position taken on the commercial and technical elements.

4. Final PPA. Following review by the pertinent government agencies and the World Bank, the draft PPA document will be revised to include comments provided and thereby become a Final Standardized Power Purchase Agreement.

Estimated Cost: US\$ 150,000

Attachment 2 Outline of the Workshop on Development of Small Power Projects

POLICY SESSION (1 day):

- I. Overview of Bagasse Cogeneration and Mini-Hydroelectric Potential in the Country
 - Financial, Economic, and Environmental Advantages to Utility, Industry and Government
 - Need for Policy and Regulatory Structure
- II. Technical and Business Development Overview
 - Bagasse Cogeneration and Hydroelectric Options
 - Real Project Examples from Countries in Region
 - Power Purchase Agreements
 - Electricity Pricing
 - Project Finance

IMPLEMENTATION SESSION (4 days)

Day 2

- I. Steps in Project Identification and Definition (parallel sessions for hydro and bagasse power generation)
 - Resource Assessment
 - Watersheds and Hydrology
 - Alternative Fuels
 - Alternative Uses of Bagasse and Water
 - Reconnaissance
 - Prefeasibility Assessment
 - Feasibility Assessment
- II. Long Term Electricity Sales Commitment, Benefits and Risks

Day 3

- III. Electricity Pricing
 - Energy and Capacity
 - Avoided Costs
 - Marginal Costs
 - Pricing Variables
- IV. Power Purchase Agreements
 - Contract Term
 - Contractual Capacity Factor Requirements
 - Time Limit for Finance Commitment
 - Time Limit for Construction and Commissioning
 - Penalties and Incentives
 - Interconnection
 - Dispatchability
 - Price, Price Escalators, and Hard Currency Indexing

- Electricity Buyer Payment Terms
- Wheeling and Banking Terms

Day 4

V. Project Finance Considerations

- Definition of Finance Strategy Options
- Local Currency and Foreign Exchange Impacts
- Debt, Equity, and Debt Security Options and Strategies
- Role of Bilaterals and Multilaterals
- Potential for Beyond the Norm Environmental Costs
- Financial Analysis and Pro Forma Preparation
- Project Documentation

Day 5

VI. Project Scope, Definition, and Timing

- Reaching Commitment
 - Environmental Impact Assessment Approval
 - Power Purchase Agreement Signing
 - Formal Commitment of Project Finance Package
- Tendering and Long Lead-Time Items (parallel sessions)
- Construction Scheduling (parallel sessions)
- Financial Disbursement Scheduling
- Commissioning and Acceptance

VII. Training Recap with All Topics Question and Answer Period