

## **Annex 1 – Draft Workshop Agenda**

### “Power Purchase Agreements for Renewable Energy Projects” - (Workshop) Suggested Topics / Content – to be discussed

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The primary purposes of a PPA are to clarify:

- the offtake volume and the tariff drivers of the revenue, so that the vendor can;
  - Demonstrate debt serviceability, and
  - A reasonable rate of investment return.
- the costs and constraints upon the purchaser/offtaker;
- the distribution of responsibility for the various risks that may arise during the lifetime of the project;
- the compensations that are applicable if the counterparty fails to deliver the contacted responsibilities;
- the circumstances where the arrangements can be terminated by either party.

Accordingly, for a course that is primarily devoted to the negotiation of the terms of the PPA itself, we also need to have an appreciation of how that negotiation will be influenced by:

- financiers attitude to debt serviceability in limited recourse financing structures;
- private sponsors analytical approach to project appraisal;
- legal constraints re government dealings with private sector, leasing sites, co-investing, etc
- the interface between the PPA (operating phase) and the construction agreement(s) (pre-completion);
- the interface between the PPA and the O&M agreement;
- the operation of law and the enforcement of rights

#### *Draft Outline*

#### **Law and the Enforcement of Rights**

The one thing that a PPA has in common with O&M, Construction, Site Control, and Financing Agreements is that they are all contracts. There is no point in having a contract unless we have reasonable prospects of enforcing our rights under those agreements - and this may well become an issue where the counterparties are from different jurisdictions. Also some members of Pacific Power Association operate in a common law system, whilst others inhabit a civil law system.

The differences between civil law and common law -- implications for financing and developing a power project;

If the financing is limited recourse, why litigation of disputes is unacceptable;

Alternative Dispute Resolution procedures – expert mediation, arbitration, the 1956 Convention;

The necessity of ensuring the contract involves an SPV defending and not enforcing;

Legal opinions;

Commercial structures that can be considered if legal rights uncertain of protection;

Sovereign power versus contractual rights and obligations.

#### **Different Project Structures**

Irrespective of the structure of the underlying transaction, many details ‘moving parts’ of the PPA will be the same, but a discussion of the various business models will be useful at an early stage.

Government leases/licenses land to private sector power plant developer who sells the power output to a government agency for retail distribution;

Government agency (or private sector entity) sells power to a dedicated offtaker (e.g. an industrial plant);

Third party ownership structure (tax investors);

Private households sell power to a utility (e.g. rooftop solar);

Each of the above implemented with Limited Recourse Financing through a Special Purpose Vehicle;

### **Financial Feasibility**

If private sector capital is required (as opposed to grant aid or government funding), then the numbers have to 'stack up' from both the private sector company's viewpoint, and the debt financiers. The PPA effectively defines the revenue stream of the project, which in turn drives the debt serviceability and the IRR. So an overview of how project appraisal is undertaken, and an understanding of the lender perspective, is advisable. It will influence the provisions that will need to be included in the revenue-generating PPA.

Risk – and its correlation with return;

Why the Free Cash Flow is the most important line in any financial model;

Investor evaluation of project finance not used;

How project financing (i.e. limited recourse financing) works;

The difference in evaluation where project is implemented through project finance;

Errors frequently encountered in project appraisal;

Lender evaluation of debt serviceability;

Typical terms and conditions for the financing of:

- Solar;
- Wind;
- Hydro.

Debt capacity and debt sculpting;

Cash sweeps;

The implementation of a cashflow waterfall on the project SPV;

The operation of lockup covenants;

The fallacy of equity bridge financing.

Case Study – Negotiating the financing term sheet of an offshore wind project

### **Revenue Drivers**

Before we go through the PPA itself in detail, we give special detailed consideration to the factors surrounding the volume of dispatch and the pricing arrangements – given their totally dominant importance.

Volume Component:

- Intermittency and the reserve arrangements;
- Priority dispatch arrangements;
- Take-or-pay structures;
- Flexibility elements and options;
- Weather derivatives – hedging volume risk;

Pricing Component:

- Feed-in Tariffs;
- Fixed price;
- Fixed escalators;
- Route to Market structures;
- Tolling;
- Government and regulatory support structures.

Deficiency Guarantees;

Other Influences:

- Battery and storage options, and outlook;
- Micro-grid control technology;
- Smart metering.

Case Study – A review of risks in renewable plant development to replace diesel generation in the Caribbean.

### **The Power Purchase Agreement**

Thus represents the central focus of the course. It is proposed to do a deep dive into a Power Purchase Agreement, discussing the requirements and the flexibilities of each clause.

A profile of the project – the parties;

Term;

Conditions Subsequent;

Performance Guarantees;

SPV's construction & development obligations;

Completion testing and Third Party Verification;

Interconnection responsibilities;

Contracted Capacity & Energy;

Commissioning and Commercial Operations commencement;

Representations & Warranties;

Purchaser Covenants

- Price and payment
- Avoided Peak Demand payments;
- Liquidated damages;

Generator Covenants

- Assignments rights;
- Licences;
- Metering, measurement and verification;
- Indemnifications;

Insurances required;

Maintenance and scheduled outages;

Confidentiality;

Credit enhancements (if required);

Flexibility provisions;

Early Termination rights;

Offtaker Step-in Rights;

Force majeure provisions;

Change in Law

Severance clause;

Transfer of ownership rights, assignments, novations;

Events of Default;

Grace periods;

Disclaimers and Limitations of Liability;

Law and jurisdiction;

Dispute Resolution.

## **Project Implementation**

The typical steps in the implementation of a renewable energy project

Location due diligence

The Request for Proposals:

- The objectives of the RFP
- A review of the terms of an RFP;

Site Lease

- Lease vs licence vs easement
- A review of the terms of a Site Agreement

SPV format – company, partnership, trust, UCV – tax implications;

Interconnection Agreement – a review of terms;

The problem of trapped cash, workarounds;

Case Study – Implementation of a Solar PV project

## **Project Development**

Usually the highest risk component of any power generation project, irrespective of technology, is the ability to get it built and working in accordance with the base case planning. Certain performance issues can often be traced to the pre-completion phase – so this session gives an overview of the consequences of defects encountered during that initial stage of the project.

Liquidated damages – delay and performance;

Performance bonds;

Retentions;

Turnkey EPC structures;

Alternatives when turnkey EPC not available;

Variation orders and cost overruns;

Standby financing;

Completion guarantees;

Two-phase financing

Case Study – A refurbishment of a power generation plant.

## **Other Factors**

For certain power projects, various options may be available, or considerations necessary, which will have an effect on the terms of the PPA to meet the requirements of the third parties being inducted into the process.

Dealing with political risk;

Dealing with currency exposures;

Involving Export Credit Agencies:

- The Berne Consensus rules;
- how buyer credits work.

Bond financing:

- which projects would be eligible;
- piercing the sovereign ceiling.

Financial Modelling (*sample files distributed*):

- Valuation modelling;
- Volatility modelling;
- Modelling the construction phase;

- Modelling the operating phase.  
Rescheduling or restructuring defaulting projects;