

CONTRATOS DE COMPRAVENTA DE ENERGÍA

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How Does a PPA Relate to Project Finance?

- Costs Versus Revenues → PPA is a power project's principal (if not only) source of revenue.
- Links to Other Project Documents
 - EPC, O&M, Real Estate, Permits, Interconnection
 - Examples: Timing, Force Majeure, Damages
- Project Finance Goal – Ensure that, if things go as expected, the project revenues under the PPA will be higher than the total capital and operating costs of project, including debt service and return on investment, over the entire term of project finance debt.

Specific PPA Terms

- Term of Agreement
 - Basic Rule – Term of PPA must be longer than Financing tenor
- Pre-COD
 - PPAs awarded through government auctions or by utilities require regulatory approval of pricing given pass-through to consumers (i.e., regulated tariffs).
 - Financing
 - Buyer Protection – Common for Buyer to require evidence of debt and/or equity funding to ensure performance
 - Seller Protection
 - Milestones
 - Construction Start/NTP Under EPC → Can be different dates
 - Delay damages may be payable by Seller for late start of construction
 - Commercial Operation Date (COD)
 - Interconnection is key – may be separate process

Specific PPA Terms

- COD Conditions
 - Testing
 - Security (Collateral)
 - Interconnection Agreement/Facility Interconnection
 - Insurance
 - Opinions → enforceability
 - Permits & Authorizations
- Early Termination
 - Milestone Delay
 - Other Defaults
- Delay Damages – Missed Milestones
 - Fixed LDs
 - Payment by Seller of Replacement Costs (not liked by lenders)



Specific PPA Terms - Obligations

- **Purchase and Sale Obligations**
- Renewable Products:
 - Energy
 - “Green Attributes”/Environmental Credits (Renewable Energy Certificates)
- Quantity
 - Excess Sale / Full Requirements / Dispatchable
 - Minimum / Maximum Deliveries

Specific PPA Terms - Pricing

Pricing

Renewable Projects (Solar, Wind Primarily)

- Single Rate: Energy Payment for All Products (Price Per KWH or Per MWH (1 MWH = 1000 KWH))
- Sometimes Separate Charge for Renewable Energy Certificates
- Has to Be “Must Run” with Limited Curtailment
- No Delivery – No Payment
- Time of Use (TOU) Rates – Better for Solar
 - Higher Prices in Peak Periods
- Geothermal → Moving to energy payments only
- Currency risk
- Currency of Costs vs Currency of Revenues
- Currency of financing – FX hedges

Specific PPA Terms - Curtailment

Curtailment

- Right of Offtaker to Refuse to Accept Energy Deliveries
 - Curtailment Can Reduce Revenue → Especially important for renewables
 - **Lender Issue**
- Two types of Curtailment:
 - Operational
 - Economic

Specific PPA Terms - Performance

RENEWABLES

- Minimum Production Requirement
 - Seller Guaranty of Minimum Production Over One or Two Years
 - Percentage of Expected Production – Solar Degradation
 - Seller Excuses
 - Similar to Availability Requirement
 - Add Curtailment Excuse
- Compliance with Dispatch, Forecasting – Availability/Production

Specific PPA Terms

Damages for Performance Below Minimum

- Conventional – Availability Requirement
 - Impact on Capacity Payments
- Renewable
 - Minimum Production Requirement
 - Liquidated Damages for Shortfall
 - Fixed - \$ for each MW/h not delivered
 - Replacement costs of energy if above contract price
 - Floors and Caps – Pay minimum floor, but cap on total liability
- Possible termination if very poor performance

Specific PPA Terms - Security

Security

- Collateral to put up to Assure Performance if Party Breaches and Fails to Pay Damages

Buyer – Can or not put up Security

- Is the offtaker Investment Grade?
- In LatAm payment security is common
- If Trading Company – Parent Guarantee

Forms of Security

- Cash
- Letter of Credit (LC)
- Guarantee – Investment Grade
- Replenishment Obligation → **Important for Lenders**

Specific PPA Terms – Change in Law

Change in Law

- International PPAs: Negotiated, but not uncommon for Seller to assume a great number of change-in-law risks
- Change-in-law risk typically assumed by Buyer if state-owned utility
- PPA may allow Seller to terminate PPA if a change in law affects costs or revenues above a certain percentage or monetary threshold

Specific PPA Terms – Force Majeure

Force Majeure

General Standard: Event Not Reasonably Predictable, Out of Party's Control, Cannot Be Overcome By Reasonable Diligence and Not The Result of Negligence

- Sometimes also a list or cross-reference to applicable law (e.g., Civil Code)

Typical Listed Events

- Acts of God (Lightning, Earthquake, Hurricane)
- War, Civil Disturbance, Terrorism, Sabotage, Government Action
- Strikes, Lockouts (other than plant specific)

Typical Exclusions

- Changes in Market Prices
- Changes in Financial Condition of Party/Economic Hardship
- Mechanical Breakdown, unless otherwise caused by another event of Force Majeure
- Failure to Get Governmental Approvals
- Curtailments Under Interconnection/Transmission Agreements

Specific PPA Terms – Force Majeure

- Time Limits
 - Notice – Time Period to Let Other Party Know Plus Details
 - Duration – 6-24 Months, followed by termination right
 - Milestone Deadlines – Force Majeure May Be Eliminated or Limited in Duration
 - Excuses Performance
 - No Compensation to Seller Typically

Specific PPA Terms - Assignment

Assignment

- Generally – Consent, not to be unreasonably withheld
- Collateral Assignment
 - Typically No Consent Needed But **Lenders Insist on Written Consents to Assignment With Additional Conditions**
- To Affiliates – Sometimes Without Consent
 - But could be issue with Lenders for Buyer Assignment. Replacement must:
 - Be creditworthy entity or provide performance security
 - Have ability to perform.

Specific PPA Terms - Assignment

- Change of Control
 - Many - but not all - PPAs have this
 - Direct or indirect
 - Definition – if not defined, it can benefit the Buyer
 - Lender foreclosure issue
 - Lender Rights in PPA or Consent Agreement
- Sale of Facility
 - Sometimes Requires Consent of Buyer
 - Sometimes Assignee/New Owner has to agree to assume PPA as condition of sale
 - Could be Lender issue in foreclosure scenario

Specific PPA Terms - Default

DEFAULTS

Utility Offtaker Default

- Primarily Nonpayment

Seller Defaults

- Typical Types
- Catch All – Material Breach
- Breach of Representation or Warranty
- Bankruptcy or Insolvency or Liquidation
- Termination of Interconnection Agreement
- Missed Milestone –

Usually Only COD

- Delay Damages for Limited Period
- Loss of Credit Support (or Downgrade of LC bank or guarantor)
- Some Defaults May Have No Cure Period
- Different Defaults May Have Different Cure Period



Specific PPA Terms

Lender Cure and Step-in Rights

- In PPA or Direct Agreement
- Buyer must notify Lenders of Default and allow right to cure
- Buyer can't terminate without notifying Lenders
- Must allow lenders to enforce, if necessary
- Assumption of PPA or Termination Payments

Specific PPA Terms - Termination

Termination

- If Default not cured within period, other party can terminate and obtain damages
- Pre-COD Termination Remedies
 - Draw on Security
 - Sometimes More
- Termination Damages
 - General Damages at Law
 - Market Damages – cost of obtaining replacement
 - Typically non-defaulting party does not pay
 - Not always the case
- Limit on Liability
 - No Consequential Special or Indirect Damages
 - Sometimes Dollar Cap on Damages – **Lender issue** especially for cap on Buyer liability as it may not be sufficient to make lender whole

Specific PPA Terms - Termination

- Specific Performance
- Option to purchase project by Buyer → **Lender issue**
 - Pricing/Valuation
 - End of Term
 - During Term
- Right of First Refusal
 - Typically only for sale of facility
 - Short period for offtaker to decide
 - If declined, third party deal to be on similar terms
 - Typically carve-out for lender rights



Specific PPA Terms – Other Typical Provisions

- Governing Law – Usually jurisdiction of performance
- Dispute Resolution – Courts vs Arbitration
 - **Lender Issue**



EPC Bankability Issues

- Purpose: engineer, procure construct; complete construction of a quality project that meets agreed performance criteria
- Capacity of EPC contractor
 - Technical capacity
 - Track record/reputation
 - Credit-worthiness

EPC Bankability Issues

- Scope of EPC obligations:
 - Fully wrapped – the “gold standard”
 - Limitations to liability – e.g., technology carve-outs
 - Equipment suppliers plus balance of plant contractor (the typical case for renewable energy projects)
 - Finger-pointing risk
- Typical in renewables, – introducing substantial finger-pointing risk
- Capacity (technical and financial) of principle equipment suppliers
- Warranties (existence, duration and assignability)
- Intellectual property
- Permits (term, renewability, assignability)



EPC Bankability Issues

- Warranties (existence, duration and assignability)
- Intellectual property
- Permits (term, renewability, assignability)

EPC Bankability Issues

- Remedies for failure to perform
 - Liquidated damages
 - Delay LDs (to cover PPA, O&M, loan interest exposure)
 - Performance LDs (applied to buy down loan)
 - Liability limits (e.g., 100% of project price)
- Lender step-in rights upon Borrower failure to perform
 - Notice of defaults
 - Extended opportunity to cure defaults
 - Assignability of EPC contract

Operations and Maintenance Agreements - Bankability Issues

- Purpose: a qualified power plant operator agrees to perform all operation, maintenance and repair services for the project, with experienced personnel, in accordance with prudent operating practices, permits, applicable law and transaction documents.

O&M Agreements - Bankability Issues

- Operator's responsibilities:
 - administration of project agreements
 - compliance with all PPA requirements and requirements of permitting authorities or lenders
 - liaising with other contracting parties
 - preparation of an annual budget
 - operation of the project in compliance with that budget;
 - administration of warranties under the construction contract(s).
 - maintaining compliance with project insurance policies
- Operator assumes responsibility for most operational risks, except:
 - force majeure events
 - design defects

O&M Agreements - Bankability Issues

- Payment provisions under O&M Agreements vary:
 - Fixed price, cost plus or bonus/penalty.
- Limitation on liability of the Operator
 - Liability varies and often depends on the Operator's potential profit
- Force majeure provisions
 - No broader than the force majeure relief available to the seller under the PPA
 - Often more limited in the O&M Agreement, allocating certain risks, such as labor difficulties, to the Operator.



O&M Agreements - Bankability Issues

- Key bankability issues:
 - Capacity
 - Affiliate versus third party Operator
 - Replacing the Operator
 - Assignability of O&M contract