

USAID's South Asia Regional Energy Partnership (SAREP)

National Workshop on **Exploring Virtual Power Purchase Agreements for India**

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VPPA: Global perspective and Case Study

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Need for VPPA Solutions

VPPA like solutions enable consumers meet 100% of their renewable energy targets with simple to use business models.

Drivers for VPPAs

- 1 Net Zero Pledge:** ~50% of the world's largest 2,000 companies have declared net zero targets
- 2 Exploring solutions beyond Open Access :** Open Access is able to deliver only ~75-80% of the consumers requirements
- 3 Emergence of ISTS:** Customers are now able to access solutions on the ISTS that minimize the impact of open access charges and losses
- 4 Innovative Business Models:** New business models have allow for customer's to choose their path to net zero

VPPA Benefits



Tailor-made, flexible business models



Reduce Scope 2/3 Emissions with IRECs



Long Term Stability on Green Attribute Pricing



High impact Projects for Decarbonization



Flexibility to consume RE pan-India



Benefits of Additionality



Banking of energy is becoming expensive

Business Models – Most Popular VPPA Models

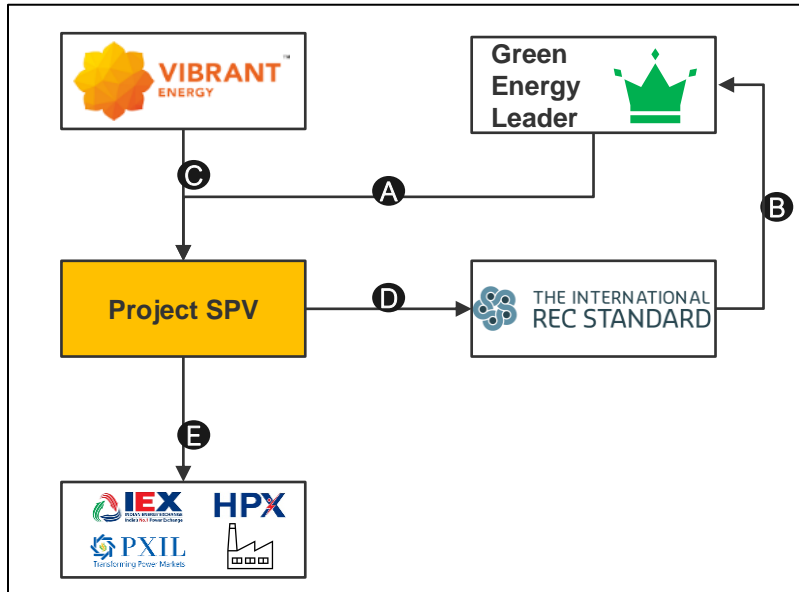
The Corporate renewable market has seen an explosive growth in the VPPA segment with the advent of projects on the ISTS that minimize regulatory losses and charges

Business Model	Attribute Only	Power Trader	Co-Investment
Cost of RECs	Highest (without Investment)	Variable	Lowest
Trading Requirement	NA	Vibrant Scope	Vibrant Scope
Long Term Exchange Price Risk	Vibrant Scope	Customer's Scope (Vibrant can facilitate energy sale)	Vibrant Scope
Economic Returns on Investment Possible?	NA	NA	Yes
Meets Additionality Requirements?	Yes	Yes	Yes
Ideal Customer Fit	Customers looking for a REC price without getting involved in the projects / market risks	Niche buyers who can take on exchange price risk + set up trading entity.	Large MNCs looking for competitive REC Pricing + high returns on Sustainable Capital deployed to de-carbonise developing countries.

Case Study-I :Attribute Only

Simplest model suited for customers looking to offtake RECs without getting involved with projects specific or market specific risks

Project Structure



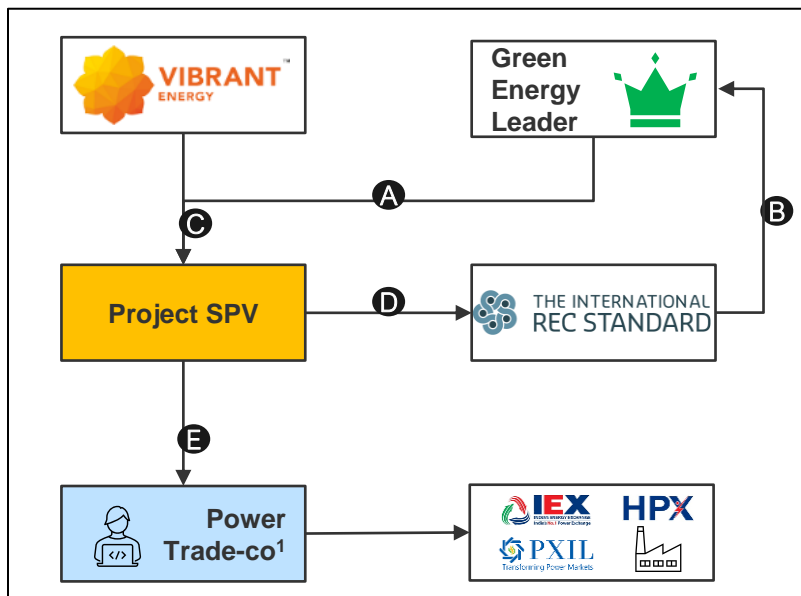
Deliverables / Actions

Deliverables / Actions	
A	- Investment is optional
B	- Customer signs IREC procurement Agreement to purchase IRECs
C	- Vibrant owns and invests and constructs the project in the Project SPV - Vibrant takes full ownership of raising project finance, Engineering Procurement, Constructions & Operations
D	- Vibrant registers the attributes of the project with IREC secretariat and transfers this to Customer
E	- Vibrant finds Off-takers for brown power and manages the tariff risk over the Term of the Project

Case Study-II : Power Trader Model

Model suited for customers who want competitive REC prices but are willing to take market specific risks on energy prices.

Project Structure



¹ Trade-Co owned by Vibrant / Customer

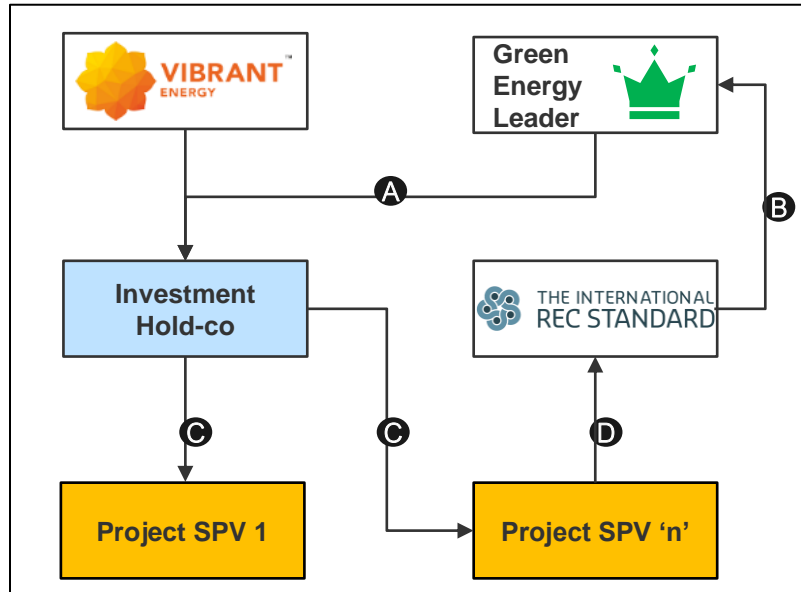
Deliverables / Actions

Deliverables / Actions	
A	- Investment is optional
B	- Customer signs IREC procurement Agreement to purchase IRECs along with Energy
C	- Vibrant owns and invests and constructs the project in the Project SPV - Vibrant takes full ownership of raising project finance, Engineering Procurement, Constructions & Operations
D	- Vibrant registers the attributes of the project with IREC secretariat and transfers this to Customer
E	- Vibrant sells 'brown' power to the consumer's energy trading company or Vibrant trades the power via its own Trading License
F	- Consumer trading entity sells energy either to IEX or to vendors identified by it.

Case Study-III : Co-investment Model

Business Model is suited for customers who want deploy capital to meet their sustainability financing goals by investing in a mature

Project Structure



Deliverables / Actions

Deliverables / Actions	
A	- Vibrant and Customer establish a hold-co to co-invest in a mature Vibrant pipeline for equity returns
B	- Customer signs IREC procurement Agreement to purchase IRECs from assets (available on a case-by-case basis) / projects specifically curated for customers
C	- Holdco owns and invests in mature Vibrant pipeline - Vibrant takes full ownership of raising project finance, Engineering Procurement, Constructions & Operations
D	- Vibrant registers the attributes of the project with IREC secretariat and transfers this to Customer
E	- SPVs sell power to C&I consumers or to Power exchanges

Thank you



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