

INVESTMENT AND FINANCING OF RENEWABLE ENERGY PROJECTS

26|NOV|09



AGENDA

1 | Project Finance

2 | Risks and Mitigation Instruments

3 | Financing Sources

4 | Cooperation Possibilities

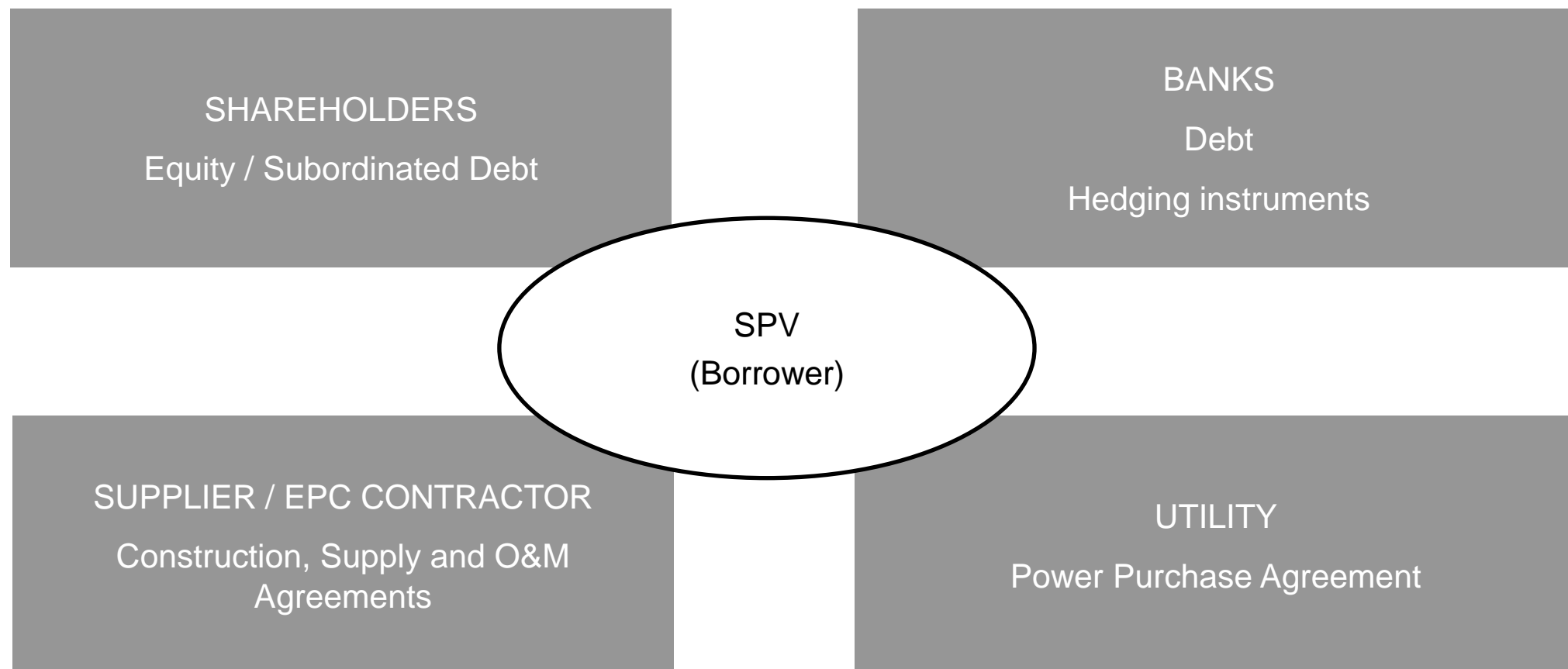
1 | PROJECT FINANCE | KEY FEATURES

- **Key Concept** – Project Finance is a method of raising long term debt financing for projects through “financial engineering”, based on lending against the cash flow to be generated by the project alone (Yescombe, Principles of Project Finance”)
- **“Ring Fenced”** - Isolates the project through the creation of a special purpose entity (i.e. Project Company), which is legally and economically autonomous from the Sponsor, and whose business is restricted to the project.
- **High Leverage** – it allows for higher debt to capital ratios and higher capital returns
- **No/Limited Sponsor Guarantees** - There is limited or no recourse from the lender to the Project’s Sponsor
- **Long Term** – Project Finance allows for investors to raise long term financing, in line with the project’s recovery period.
- **Predictability** - Relatively stable and predictable cash flow generation
- **Cash Flow Generating Ability** - Lenders rely on the ability of the Project to generate future cash flow and to service debt
- **Limited Risk / Security** - The structure of the non recourse / limited recourse loans limits the responsibility of the investor to the equity injected into the project, as the main security given to Lenders consists of the project’s assets
- **Complex Contractual Arrangements** – the typical project finance contractual structure results from a detailed evaluation of the project’s risks and the most efficient way to allocate them between the different parties involved

Maintenance of the Sponsor’ investment capacity

1 | PROJECT FINANCE | MAIN COMPONENTS

- **Contractual Structure:** The SPV assumes a key role in the complex contractual structure that characterizes these type of Projects, intended to regulate the relationships between the various parties and to ensure, whenever possible, that the adequate risks are transferred outside of the SPV's scope.



1 | PROJECT FINANCE | MAIN COMPONENTS

- **Due Diligence Process:** The Lenders have created a group of instruments which are used in the analysis and management of project risks (legal, technical, environmental and financial), the most important of which is the due diligence process
- The due diligence process typically involves:
 - Hiring external advisors to issue reports on critical aspects of the project and intervene during the negotiation and monitorization phases of the project
 - Significant added costs to the sponsor; and
 - Making all sensitive information regarding the project available to the Lenders and their external advisers in an organized and efficient manner
- The due diligence process is instrumental in developing the final contractual structure and base case.
- **Financial Model:** A Project Finance structure implies the development of a financial model, which is an essential tool for the financial evaluation of the project
- The financial model is an EXCEL based tool which forecasts the future cash flows available for debt service of the project and reflects the contractual obligations of the different parties involved
- The financial model serves several purposes:
 - Determine optimal financial structure for the project
 - Assess investor's return on its investment;
 - Provide the Base Case
 - Reflect financial provisions of contractual arrangements
 - Assess the impact of changes in key assumptions (sensitivity analysis);
 - Negotiation tool
 - Determine the necessity of hedging instruments

1 | PROJECT FINANCE | ADVANTAGES vs. DISADVANTAGES

- There's a variety of reasons that make this type of structure attractive to investors:
 - High debt to capital ratios, which allows for cost optimization / increased shareholders return
 - No use of the project's parent company or project's Sponsor Balance Sheet;
 - It may increase the borrowing capacity of the investor, since this type of debt is usually not counted against corporate credit lines;
 - The investor's risk is limited to the amount of equity it has to inject in the project;
 - Allows for longer debt maturities compared with corporate loans, which is crucial for investments with longer recovery periods;
 - Credit Enhancement - in the long run the project's risk is more limited than sponsor's risk:
 - The scope of the special purpose entity's activities is limited to the project;
 - Strong mechanisms of management and financial control;
 - Lenders can take actions to remedy situations under which the Project Company is in default.

- In capital intensive projects with longer recovery periods, the aforementioned advantages outweigh the negative aspects, namely:
 - More time consuming;
 - Higher degree of complexity;
 - Transference of control over the Project Company to Lenders;
 - Higher upfront costs, in relation to the due diligence process and financial structuring of the operation.

Used in projects with high capital cost which can only be recovered over a long term period

2 | RISKS AND MITIGATION INSTRUMENTS

MAIN RISKS	MITIGATION FACTORS
Construction / Technological	Turn key fixed price contracts, technical and legal due diligence, tested technology, completion and performance guarantees, insurances
Permits and licensing / regulation	Legal due diligence, PRI
Energy production	Technical due diligence – wind / solar / hydro yield assessment.
Energy Price	Long term PPAs (with floor prices), hedging agreements, market due diligence
O&M	Technical due diligence, availability guarantees, insurances. Resistant to sensitivity analysis.

2 | RISKS AND MITIGATION FACTORS

MAIN RISKS	MITIGATION FACTORS
Interest Rate	Hedging agreements
Exchange Rate	Debt, revenues and OPEX in the same currency, hedging agreements

3 | FINANCING SOURCES

EQUITY INVESTORS

- SPV Shareholder
- Sponsor (*Partnership Agreement*)

EQUITY

- Equity contributions

LENDER

- Financial Institution

DEBT

- Mezzanine
- Senior debt:
 - Medium and long term loan
 - Capital Market

GOVERNMENT

SUBSIDIES

- Subsidies and incentives

SPV (the Borrower)

4 | COOPERATION POSSB ILITIES

MAIN AREAS	Local Partners
Due Diligence	Local law firm for the legal DD.
Construction	Local subcontractors for civil and electrical works
Financing	Involving local banks /insurance companies in the financing of the project.
Sale of Electricity / Interconnection	Local utilities
O&M	Local subcontractors, especially for the maintenance of electrical equipments.
Equity	Local Partnerships at company/project level; Joint Ventures

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