Understanding Project Finance for Coal Power Transaction

Institute for Energy Economics and Financial Analysis
IEEFA.org

March 2017

What will be covered today?

- Fundamentals of Project Finance

- Project Finance players
  - Lenders
  - Export Credit Agencies
  - Project sponsors

Project finance is the financing of long-term infrastructure based upon a non-recourse structure.

- Non-recourse means the lender is only entitled to repayment from the profits of the project the loan is funding, not from assets of the borrower;

- Long-term loans with tenor of 20 years or more;

- This is why every aspect of the project needs to be bankable – repayment is entirely predicated on the viability of the project;

- **In spite of the non-recourse feature, the key driver for lenders is the strength of the sponsor groups and depth of their pockets.**

Project finance is about identifying each risk associated with the design, construction and operation of the project; and determining which participant is best able to bear that risk, and the mechanic to do so.

Example
Risk: Can the project be completed on budget and on time?

Where construction cost overruns arise, the lenders will not expect to advance additional funds.

Mitigant: Enter into a turnkey construction contract under which, in exchange for a fixed price, the contractor agrees to construct the project by a specific date and in accordance with agreed specifications.

What exactly is financial close?

Financial close: the date of the initial drawdown, when funds (loans, equity) can start flowing to implement the project. It occurs when all the condition precedents are met, such as:

- Permitting and planning approvals secured;
- Key **land acquisition** steps have been achieved.

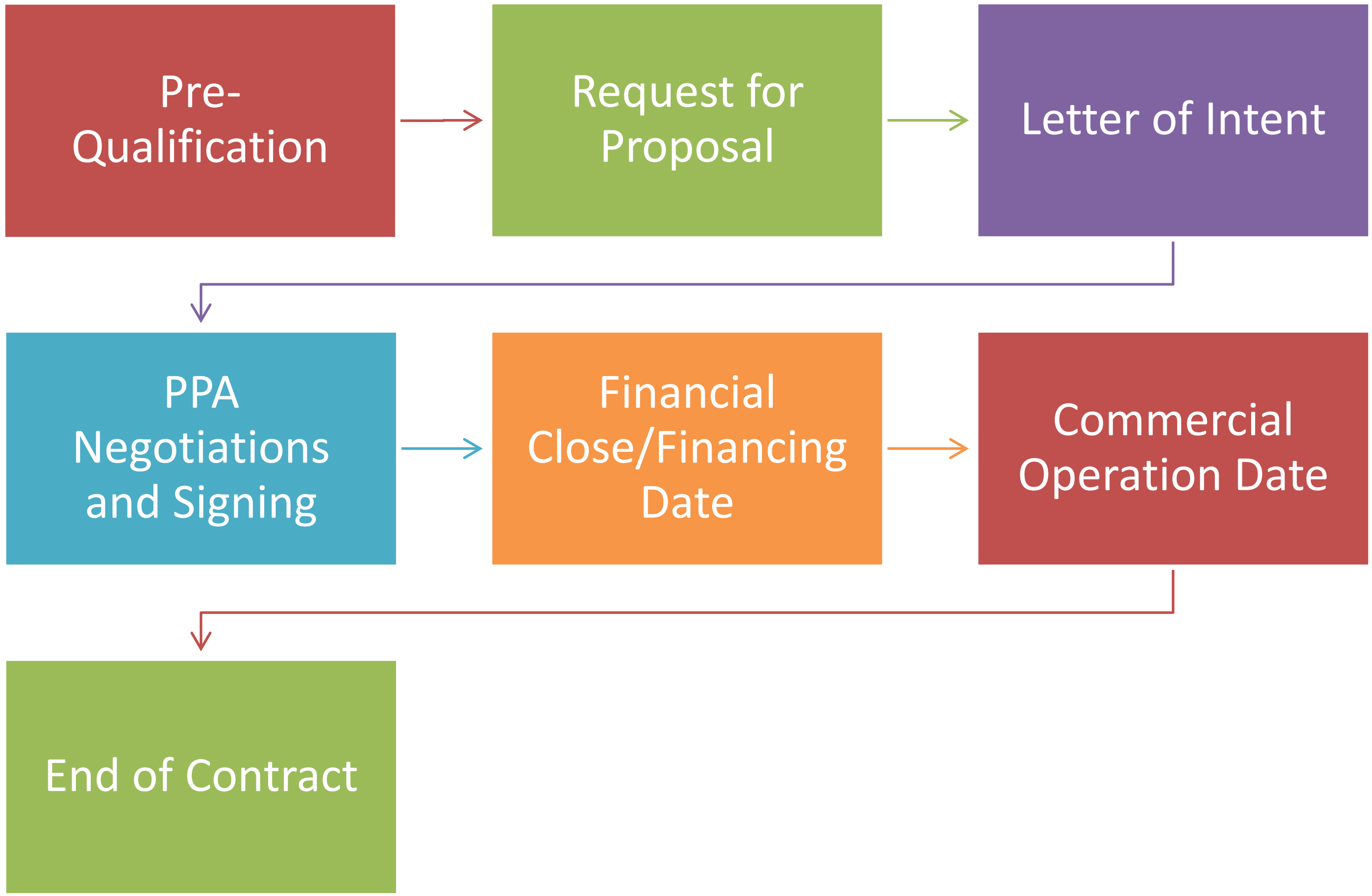
What is the key difference between project finance and a corporate loan?

Key difference
• Under corporate loan, lenders have recourse to all the assets of the company itself (regardless of whether the proceeds of the loan are used to finance a specific asset or not); • In project finance, the borrower is a Special Purpose Vehicle (SPV) and the principle Lender security is the future cashflows of the project itself – it is 'cashflow lending'.

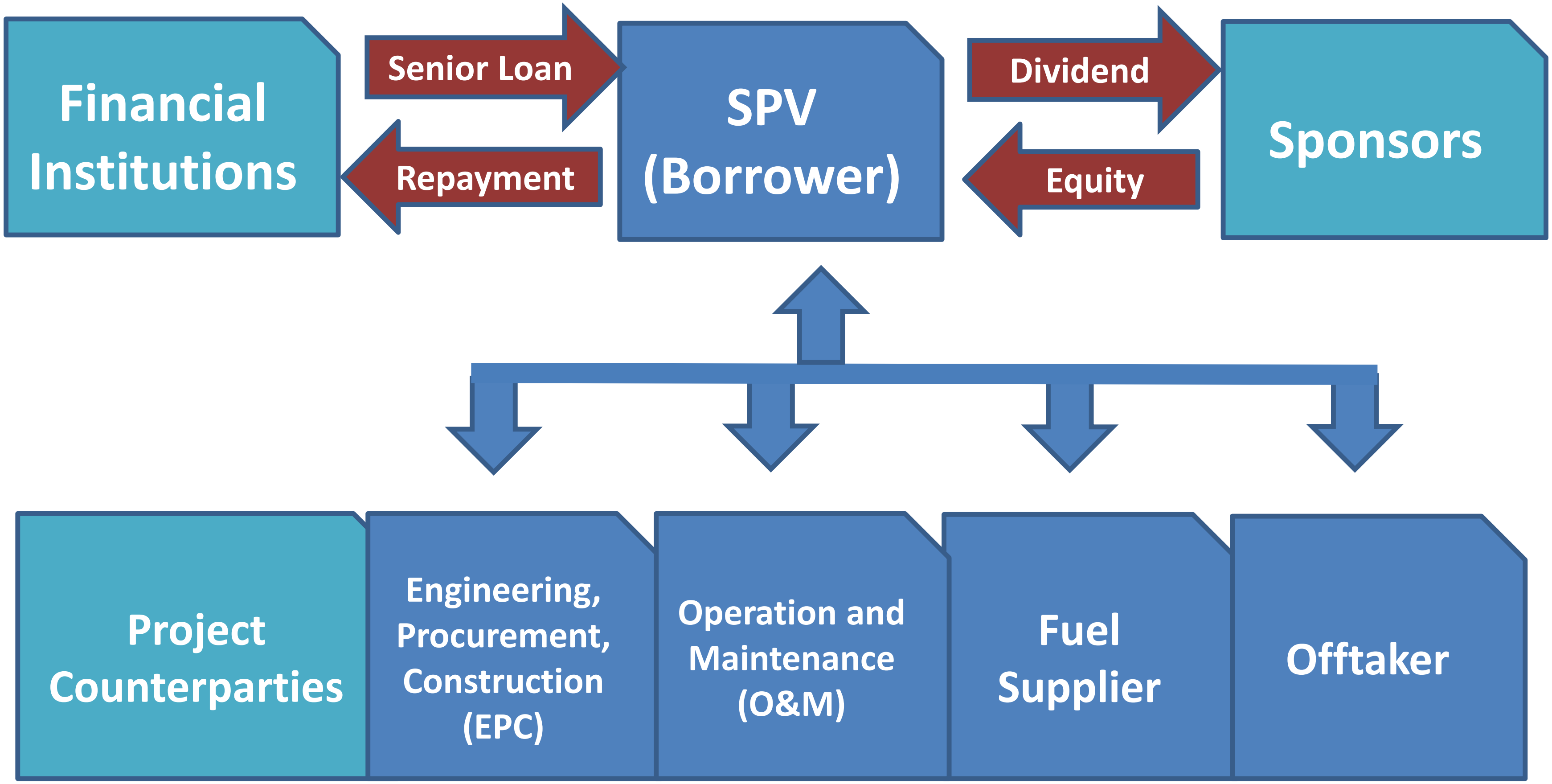
Trends in Project Finance for Coal-fired Power Sector

- European and North American banks retrenched from financing new coal fired power projects;
- Local banks are getting involved. So are regional banks;
- Liquidity constraints following the financial crisis give way to more Export Credit Agency (ECA) financing and regional banks participation;
- Moving from an underwriting and syndicating model to club deals.

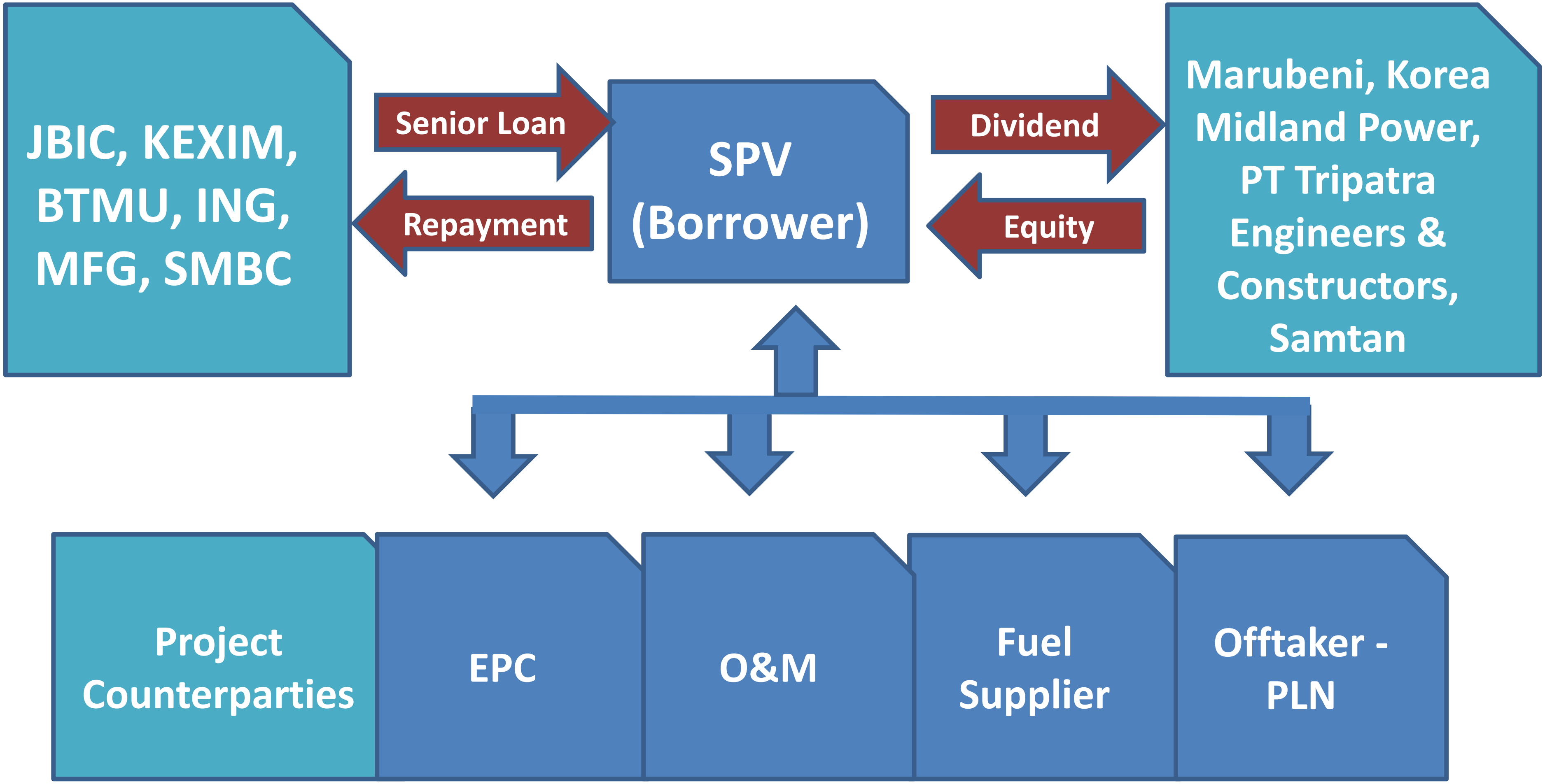
Independent Power Producer (IPP) Business Process Flow



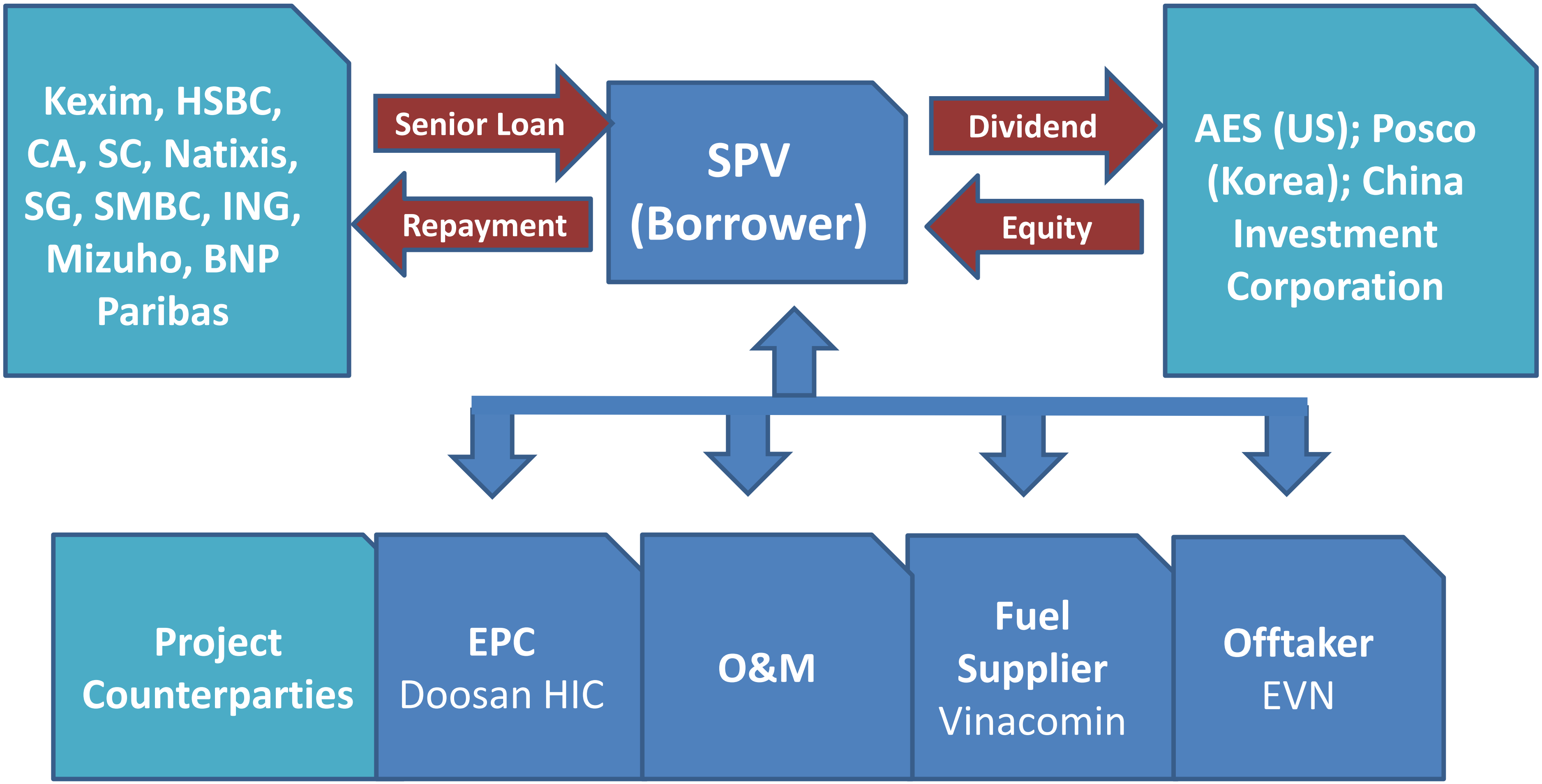
A Typical Project Finance Structure Chart



The USD595 million financing package for IPP Cirebon 1 (660MW) achieved financial close in March 2010.



The USD1.5 billion financing package for IPP Mong Duong 2 (1200MW) achieved financial close in September 2011.



Lenders

Financial ratios and covenants

- In determining the *debt/equity ratio*, sponsors would like to raise as much debt as possible, because:
  - Less money at stake;
  - The higher the debt portion, the higher the returns on equity.

- On covenants, since the implementation of Equator Principles and use of IFC Performance Standards, many covenants cover environmental and social milestones throughout the life of the loan.

Power Purchase Agreement (PPA) tariff is made up of five components – as long as sponsors receive capacity payment, this portion is enough to repay debt and provide equity return.

Tariff components:

1) capacity payment, IPP is paid as long as the plant is ready for dispatch;

2) Fixed O&M cost;

3) Variable O&M cost excluding fuel cost;

4) Fuel cost; and

5) Transmission cost

Export Credit Agencies

ECA support can take the form of loans, guarantee or insurance, depending on the mandate it has been given by its government.

- Loans: Loan to the overseas buyer of an export to enable the purchaser to finance the purchase;
- Guarantees: Guarantee to commercial lenders financing the purchase of an export, or guaranteeing repayment of their loan. Or, the ECA guarantees a loan made to an exporter to facilitate exports;
- Insurance: Insurance to exporters against non-payment by the overseas buyers. An ECA may also provide political risk insurance.

Risk insurance is critical to projects obtaining international financing. It is usually expressed as a percentage of the risk, and size of the loan covered for that risk.

- Political risk cover – covers restriction/ prohibition of imports, war or revolution, change in law or policy;
- Commercial risk cover – covers inability to collect export proceeds or loan because the counterpart doesn't repay the loan;
- Extended political risk guarantee (EPRG) - covers the usual political risks plus risks associated with breach of contract by government parties (e.g. if offtaker defaults), nationalisation, and currency non-convertibility.

For e.g., a USD1 billion loan, may have 800 million "covered" for 100% of political risk, 90% of commercial risk. The rest, the USD200 million, may require another ECA support.

Export Credit Agencies - New OECD guidelines on coal-fired power generation

PLANT UNIT SIZE (gross installed capacity)	Unit > 500 MW	Unit ≥300 to 500 MW	Unit < 300 MW
Ultra-supercritical or < 750 g CO_2/kWh	12 years	12 years	12 years
Supercritical or between 750 and 850 g CO_2/kWh	Ineligible	10 years, and only in IDA-eligible countries	10 years, and only in IDA-eligible countries
Subcritical > 850 g CO_2/kWh	Ineligible	Ineligible	10 years, and only in IDA-eligible countries

Project Sponsors

Sponsors provide equity into the SPV to fund the project

- Sponsors may be a single party, or more likely, a consortium of sponsors;

- In a consortium, it often includes a power developer, a fuel supplier (e.g. coal mining company), and an EPC contractor.

Chinese participants in IPP market

- China Shenhua Energy, largest coal miner by market capitalization, is the sponsor for Sumsel-1 Coal Power (2×300 MW) and Jawa-7 Coal Power (2×1,000 MW) in Indonesia;

- Power generators such as Huadian Group and China Southern Power Grid, and contractors e.g. Power Construction Corporation of China have been active overseas;

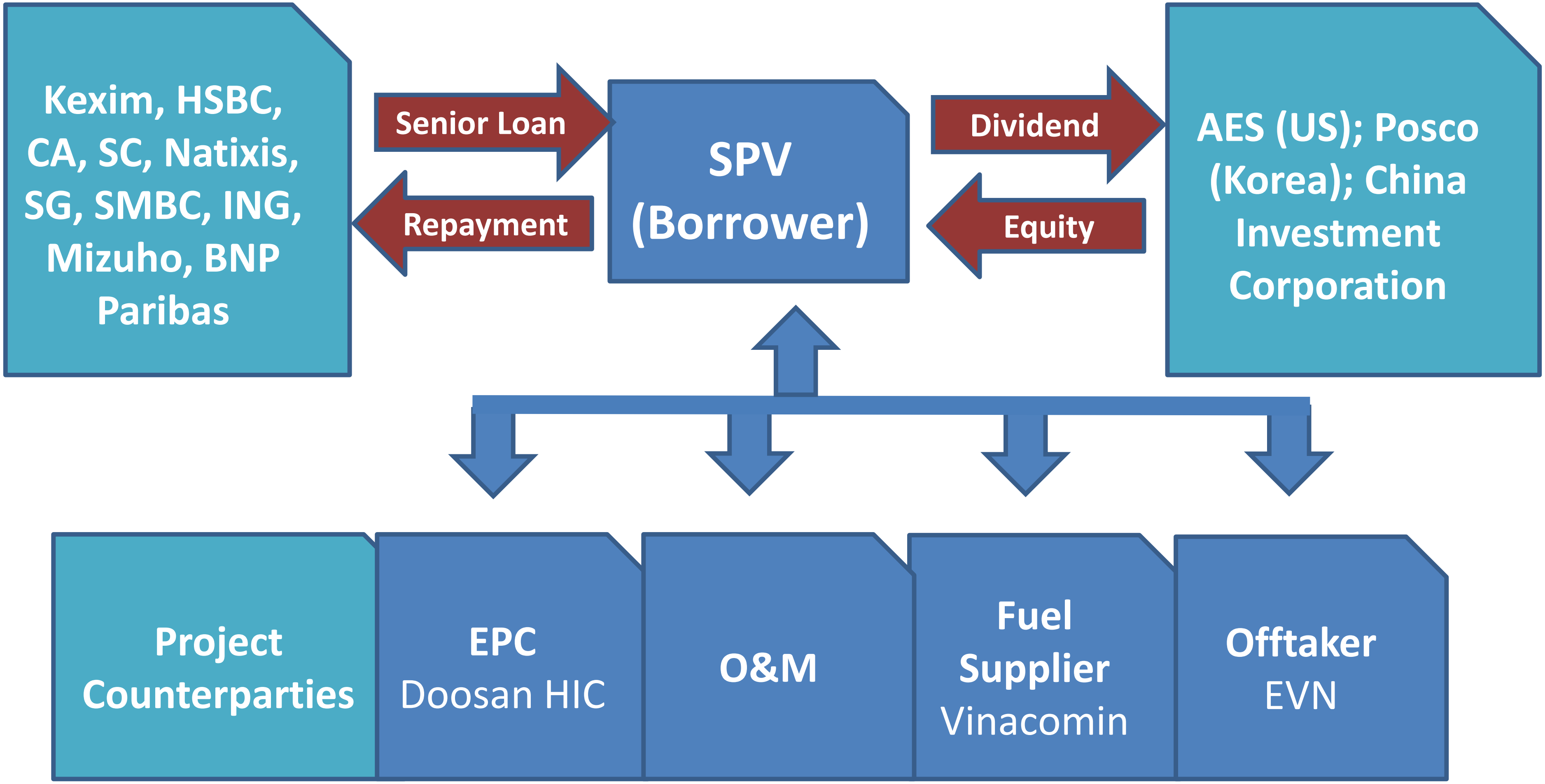
Top Japanese Trading Houses

- Itochu
- Mitsubishi
- Mitsui
- Marubeni
- Sumitomo
- Sojitz
- Toyota Tsusho

Mitsui has said it will cut its investment exposure to coal by a third within three years, due to environmental concerns; Sojitz, also said it would limit investments in coal.

Summary of learning

The USD1.5 billion financing package for IPP Mong Duong 2 (1200MW) achieved financial close in September 2011.



Do we understand everything in this table?

Mong Duong 2 Financing Plan	USD million
Kexim – Direct Loan	342
Kexim – Covered loan (100% political and commercial cover)	280
K-sure – Covered loan (80% political and commercial cover)	839
Total debt	1,461
Key Financing Details	
Tenor	18 years
Gearing (debt/equity ratio)	75% debt, 25% equity