

Project Finance
Case Studies in the Asian Power Sector

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Infrastructure Finance Group

Japan Bank for International Cooperation (JBIC)



1. JBIC's Track Record

2. Overview of Project Finance

3. Case Studies

Organization

Energy, Natural Resources and Environment Finance Group

-
- Oil and Gas Finance Department
 - Mining and Metals Finance Department
 - Nuclear and Renewable Energy Finance Department
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Infrastructure Finance Group

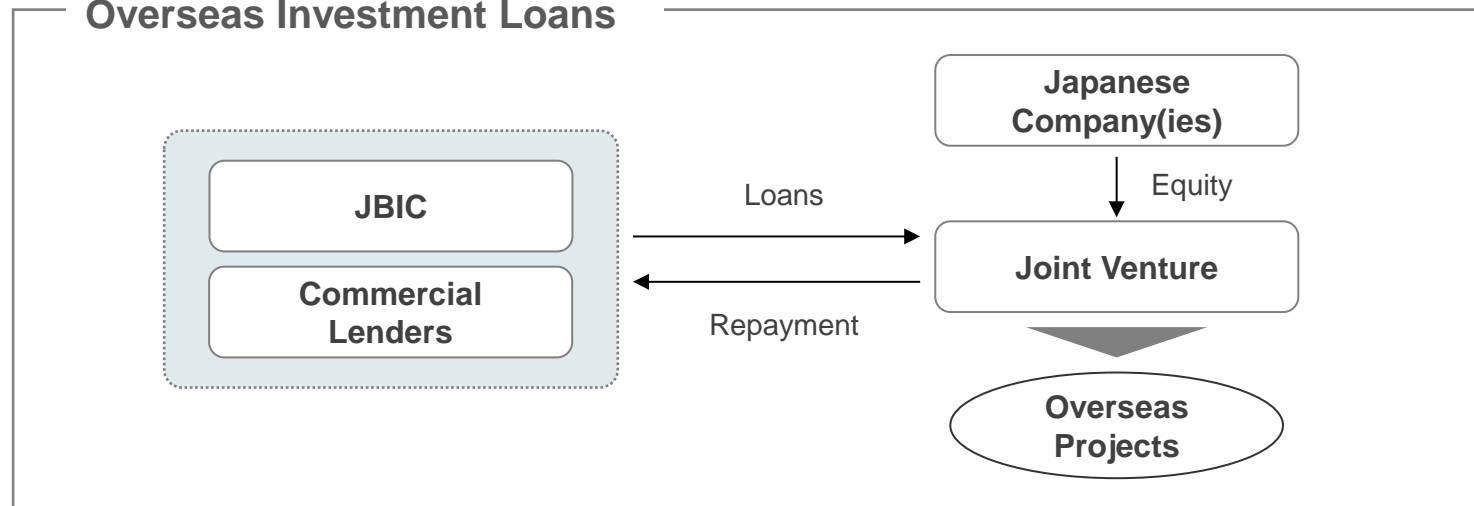
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- Power and Water Finance Department
 - Transportation and Telecommunication Finance Department
-

Industry Finance Group

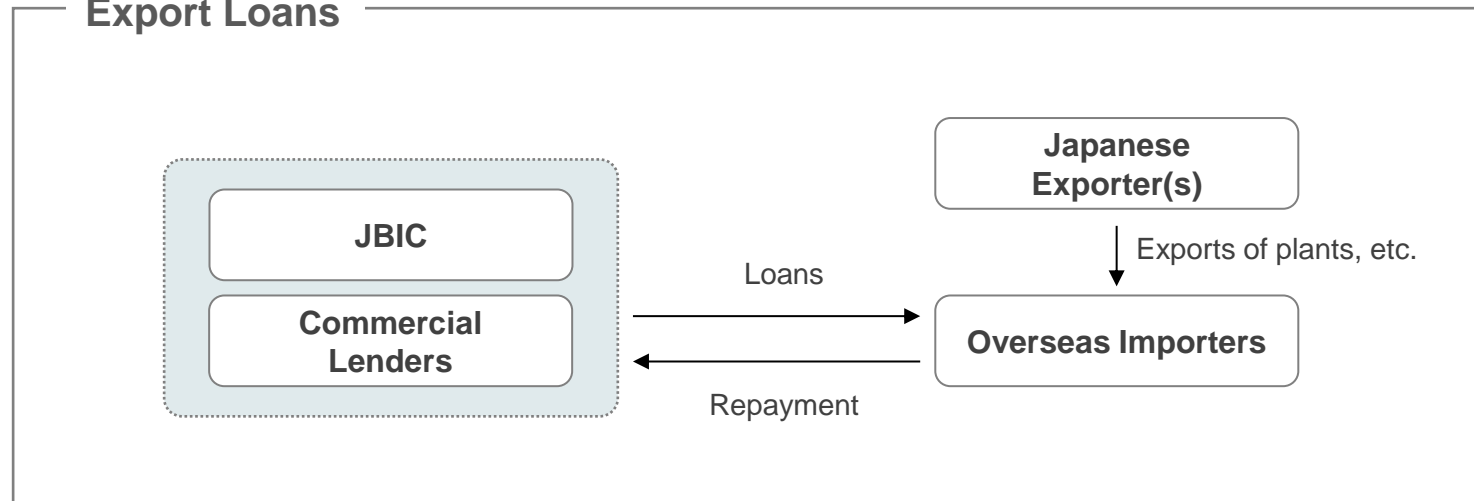
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- Corporate Finance Department
 - Marine and Aerospace Finance/Financial Products Department
 - West Japan Office
 - Finance Division for SMEs
-

Financial Instruments

Overseas Investment Loans

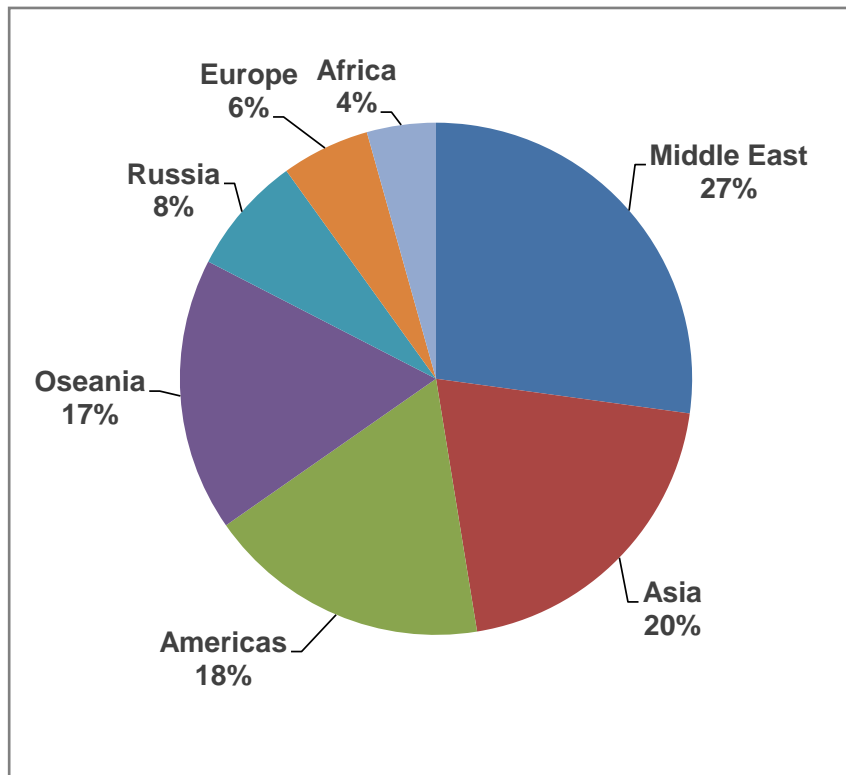


Export Loans

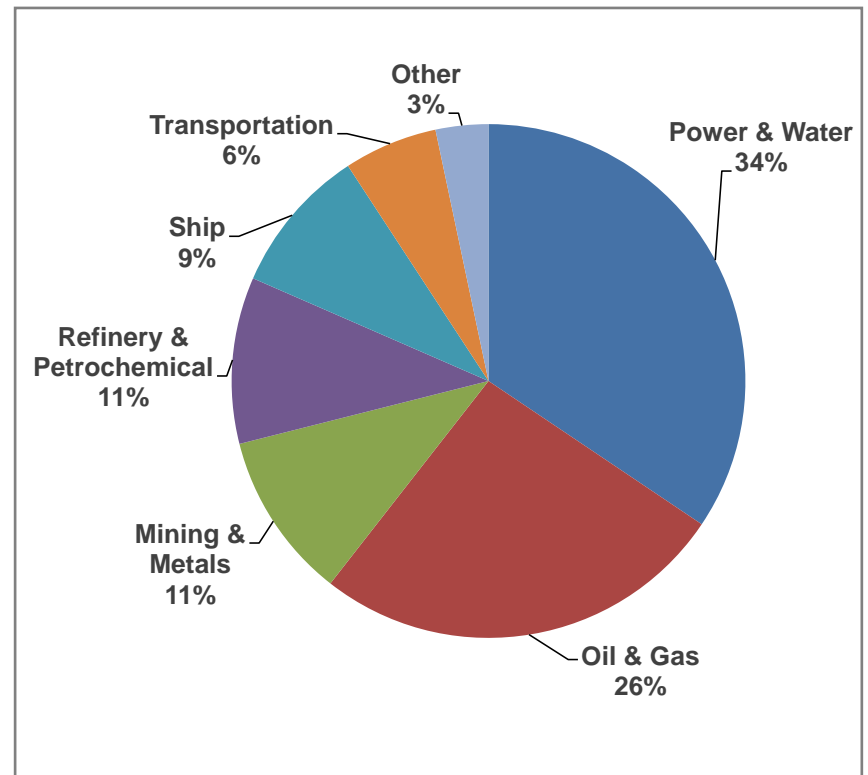


JBIC's Track Record in Project Finance

Value of Loan Commitments by Region
(as of April 30, 2014)



Value of Loan Commitments by Sector
(as of April 30, 2014)



JBIC's Track Record in Asian Power Sector

Vietnam

- Phu My 2 Power Plant
- Phu My 3 Power Plant

Philippines

- Mirant Power Acquisition
- Ilijian Power Plant

Thailand

- BLCP Power Plant
- Kaeng Khoi 2 Power Plant
- Ratchaburi Power Plant
- Nong Saeng Power Plant
- U-Thai Power Plant
- Khanom 4 Power Plant



Singapore

- Senoko Power
(Equity Participation)

Indonesia

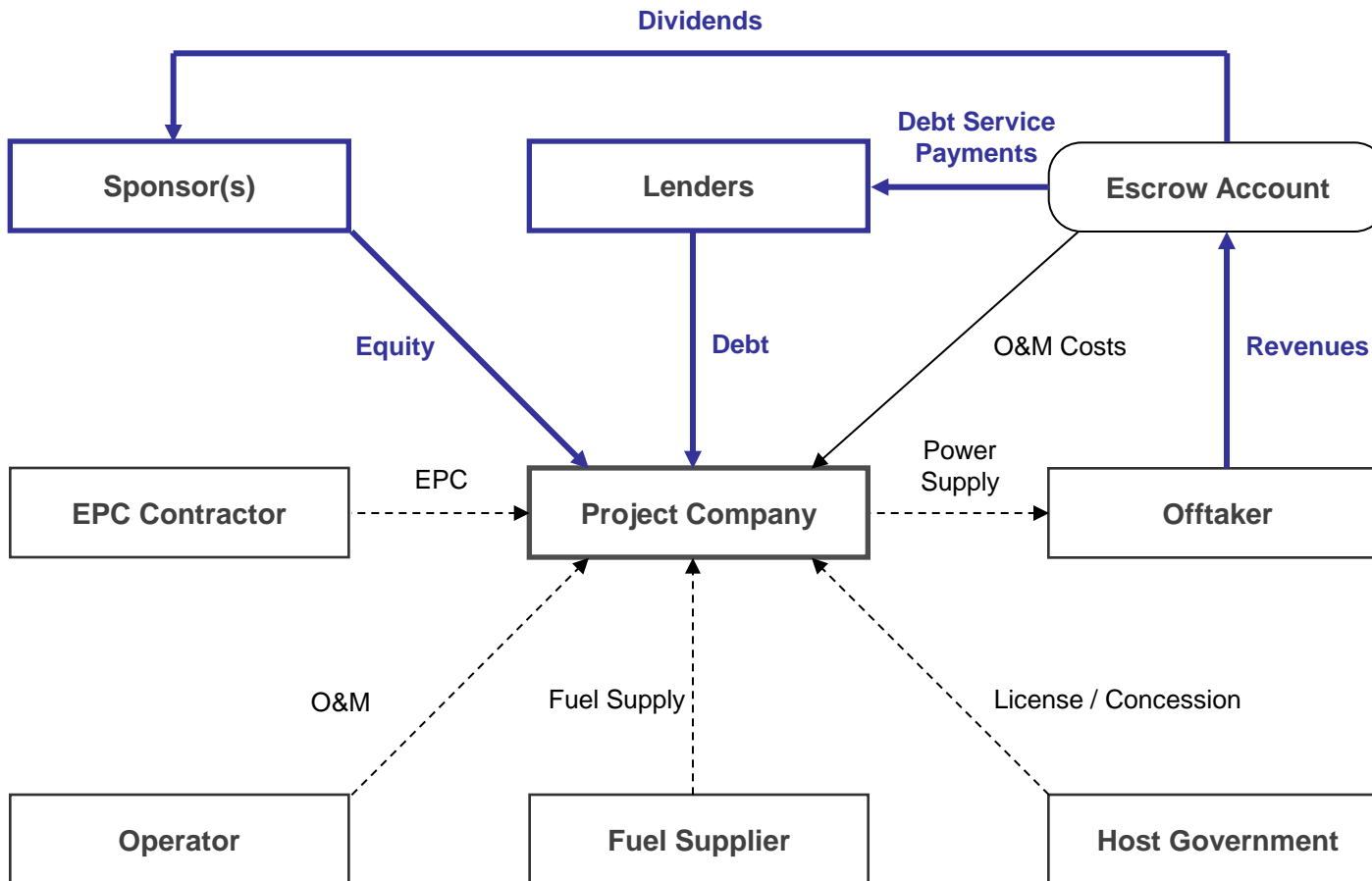
- Paiton Power Plant
- Tanjung Jati B Power Plant Expansion
- Paiton Power Plant Expansion Project
- Cirebon Power Plant
- Sarulla Power Plant

1. JBIC's Track Record

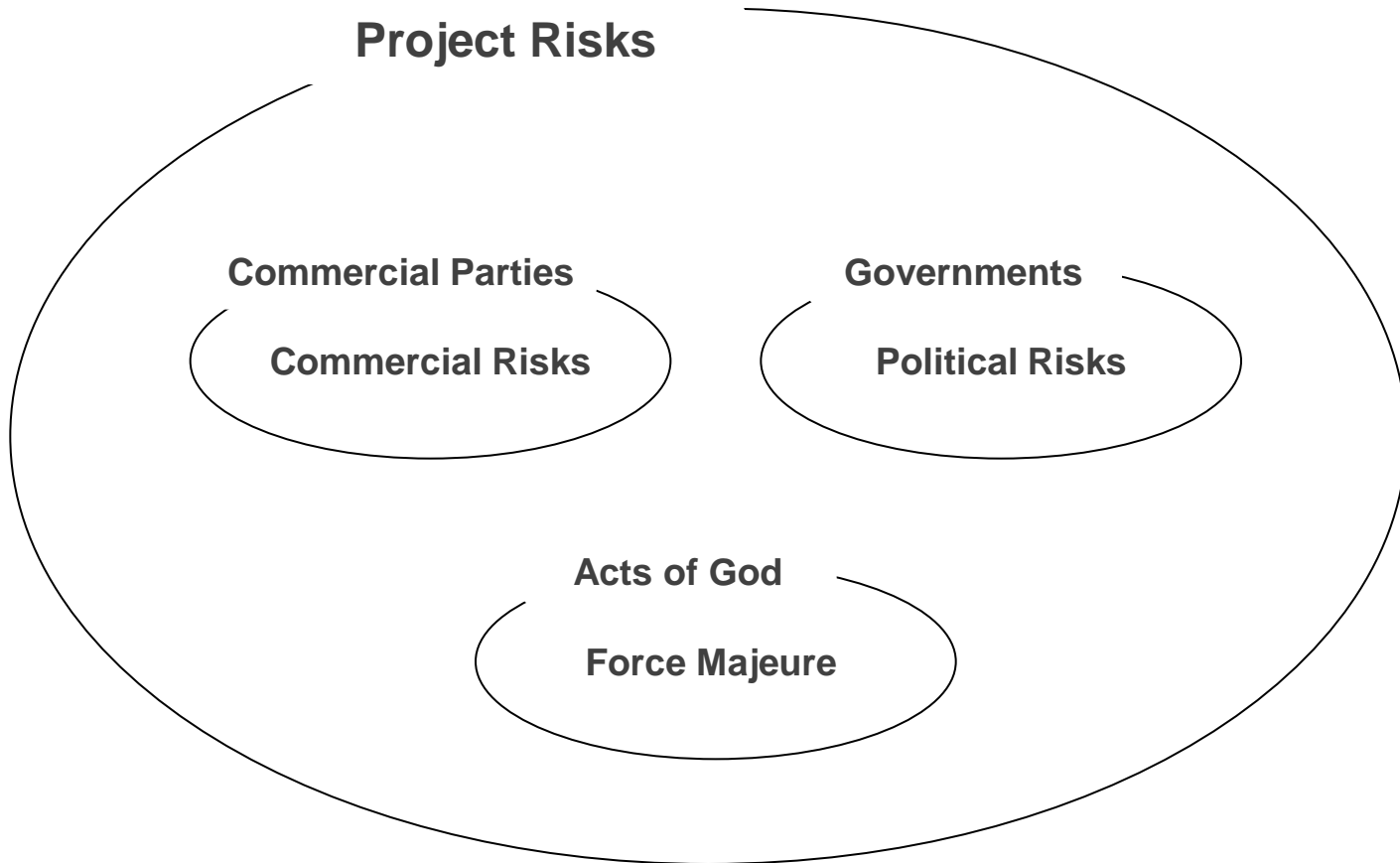
2. Overview of Project Finance

3. Case Studies

Typical IPP Structure



Project Risks



Commercial Risks

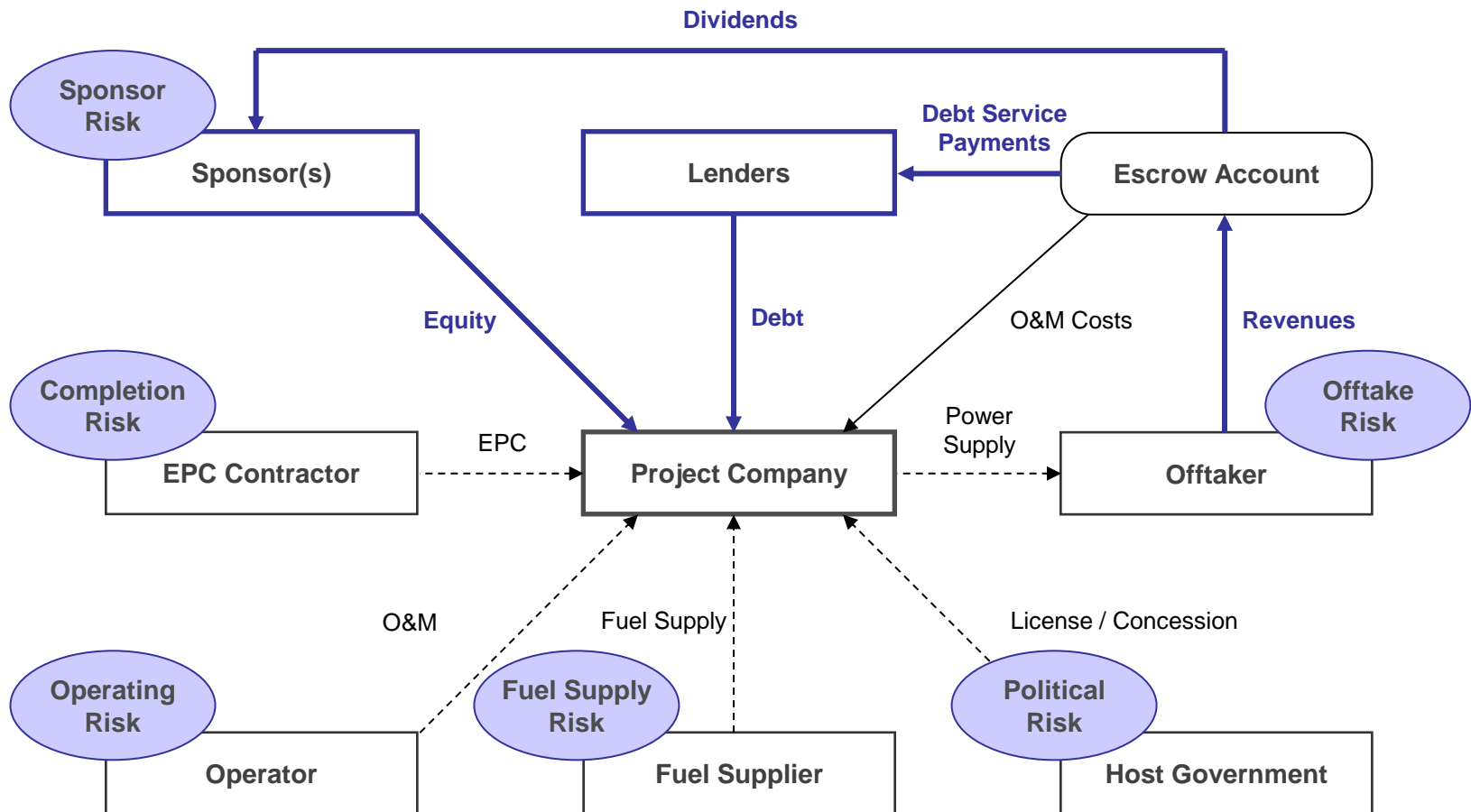
	Overview	Mitigation
Sponsor Risk	<ul style="list-style-type: none">• The possibility that the sponsors will be unable to inject equity into the project company	<ul style="list-style-type: none">• Require a third party credit support, if the sponsor is not creditworthy
Completion Risk	<ul style="list-style-type: none">• The possibility that the project will not be constructed on time, on budget, or to the required specifications	<ul style="list-style-type: none">• Use a reputable and financially sound contractor• Require a lump sum turn key contract
Operating Risk	<ul style="list-style-type: none">• The possibility that the facility will be unable to perform consistently at a level sufficient to meet the required performance criteria	<ul style="list-style-type: none">• Use a reputable and financially sound operator
Fuel Supply Risk	<ul style="list-style-type: none">• The possibility that the project will be unable to have steady supply of fuel at a reasonable cost	<ul style="list-style-type: none">• Require a long term fuel supply agreement• Require that the price of fuel be passed through to the offtaker
Offtake Risk	<ul style="list-style-type: none">• The possibility that the offtaker will be unable to purchase the power	<ul style="list-style-type: none">• Require a long term take-or-pay contact• Require a third party credit support, if the offtaker is not creditworthy
Infrastructure Risk	<ul style="list-style-type: none">• The possibility that the project will be unable to access to the feedstock and fuels etc	<ul style="list-style-type: none">• Seek protection from the host government etc

Political Risks & Force Majeure

	Overview	Mitigation
Currency Transfer Restriction	<ul style="list-style-type: none">• The possibility that the host government / central bank will restrict currency transfer	<ul style="list-style-type: none">• Seek protection from the host government etc• Use a political risk guarantee
Adverse Regulatory Changes	<ul style="list-style-type: none">• The possibility that the host government will establish a regulation that adversely affect the project	<ul style="list-style-type: none">• Carry out a legal due diligence• Seek protection from the host government etc• Use a political risk guarantee
Expropriation	<ul style="list-style-type: none">• The possibility that the host government will impair or eliminate ownership of or control over the project	<ul style="list-style-type: none">• Use a political risk guarantee
Terrorism	<ul style="list-style-type: none">• The possibility that the project will suffer from terrorism	<ul style="list-style-type: none">• Use a terrorism insurance
Force Majeure	<ul style="list-style-type: none">• The possibility that the project will suffer from unexpected events which are outside control of the transaction parties – e.g. war, earthquakes, and storms	<ul style="list-style-type: none">• Use insurances• Put in place “<i>force majeure clause</i>”

Risk Allocation

“ Risks should be allocated to parties which are best to control them ”



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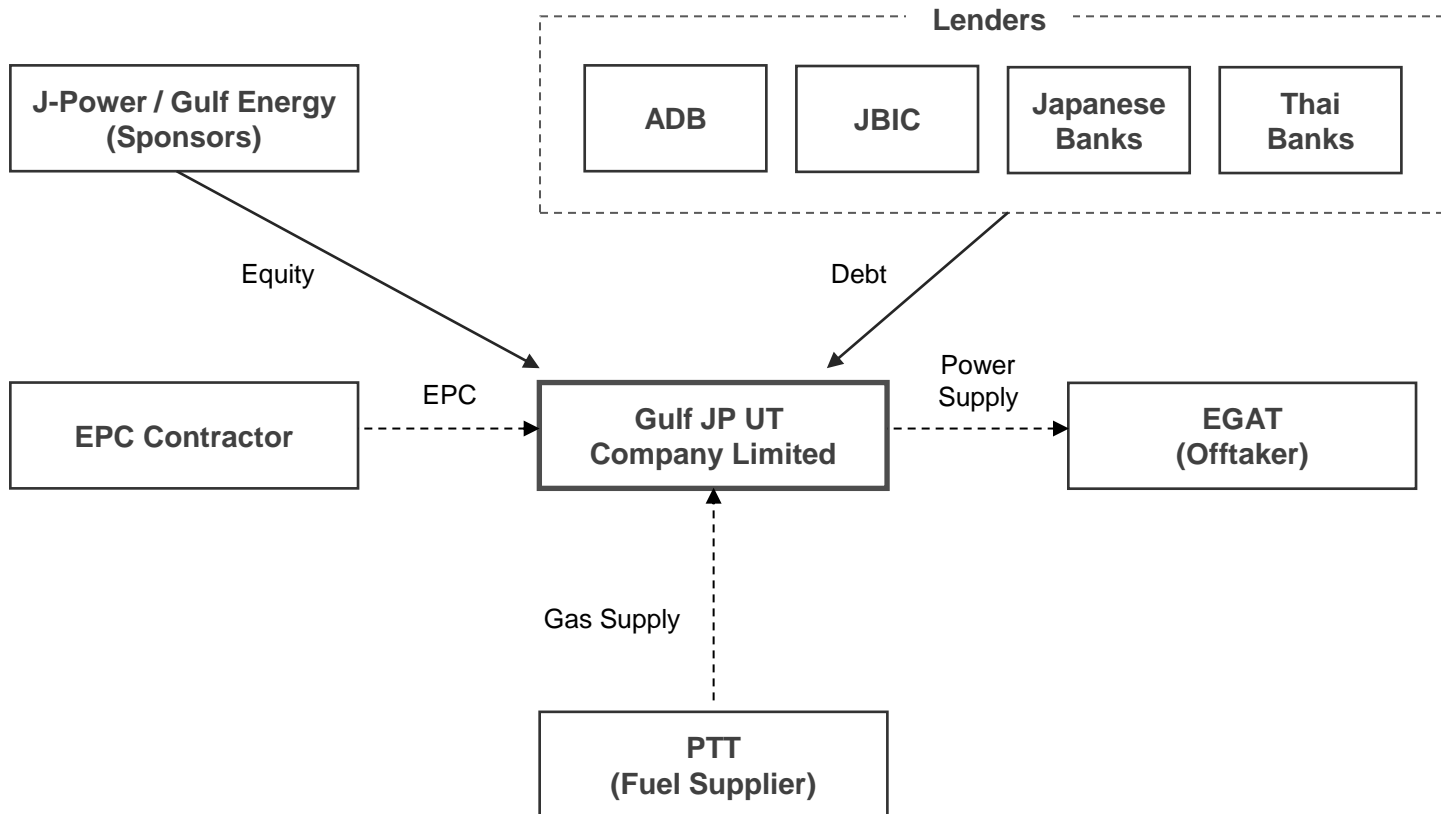
3. Case Studies

Power Market: South-East Asia



Case Study – Thai IPP

Project Financing for Utai Natural Gas-Fired Combined Cycle Power Plant (1,600MW)



Thank you!

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