



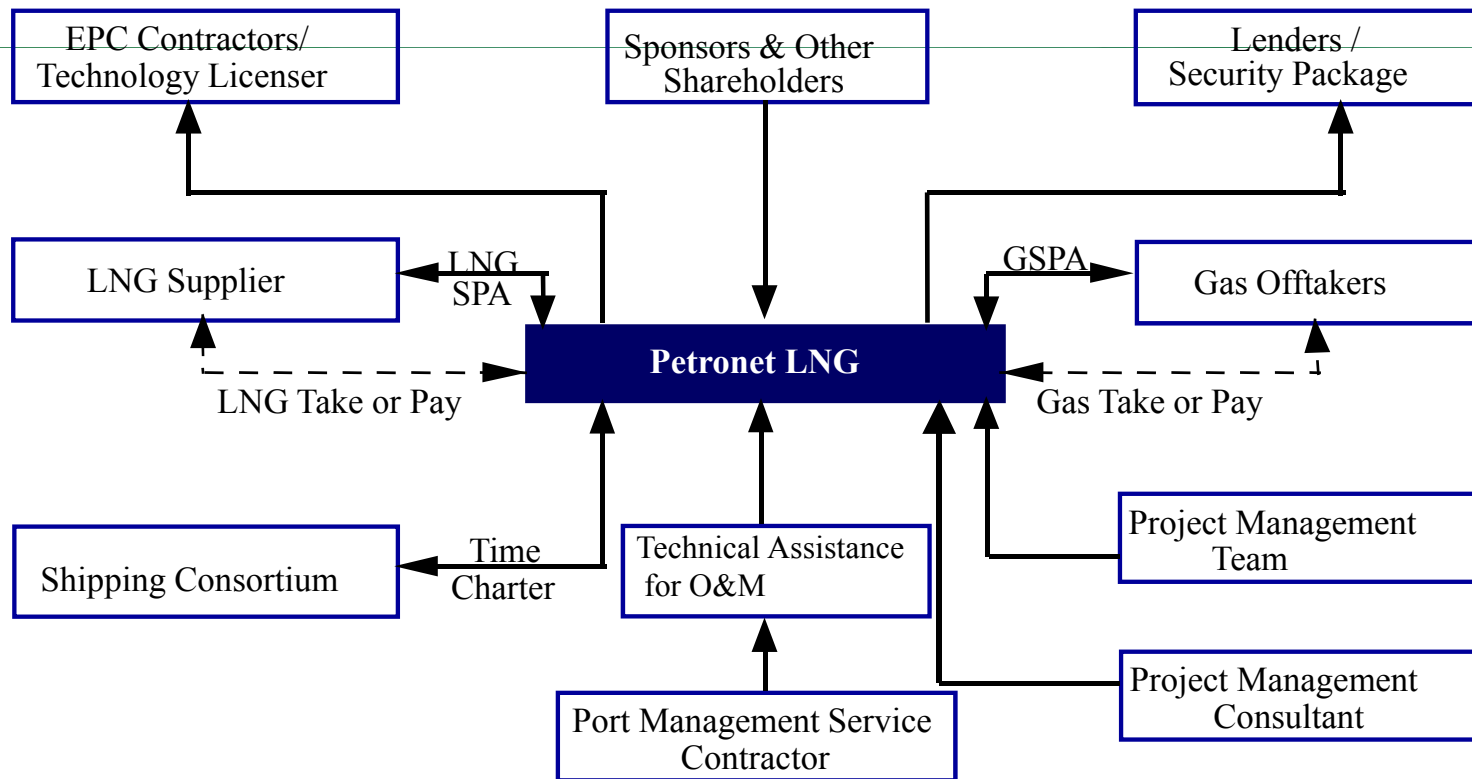
Petronet LNG Limited

A Case Study

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Implementation Methodology

Contractual Structure



Management Risk Analysis

- Profile of promoters
 - Excellent Financial track record
 - Existing mega players in Oil Industry
 - 2 out of 4 feature in Fortune 500 Company List
 - No experience of Indian promoters in LNG business
 - GDF inducted as a partner
 - GDF engaged in LNG business over four decades
- Experience of RasGas Promoters
 - Exxon Mobil as partner with QP
 - Established LNG Supply history
 - In order to have a thorough understanding, PLL had the option to procure shareholding in RG II SPV
- Experience of Vessel Owners
 - Mitsui, NYK, K-Line, Q-Shipping and SCI
- Parent company guarantees extended to facilitate commercial operation of the chain by April 2004

... Risk Analysis & Mitigation ...

- Petronet LNG Experience: Development & Construction phase
 - All *development risks borne* by sponsors by raising construction funding from lenders on fully guaranteed basis.
 - *Eliminated initial project development* time associated with execution of contracts and achievement of “*Financial Closure*” thereby giving PLL first mover advantage.
 - Enabled completion of *market tie* up close to commencement of *commercial operations*.

Construction Risk Analysis

- ***Construction risk mitigated by awarding*** of Fixed Price, Date Certain Turnkey EPC Contract to an internationally reputed contractor after a global bidding process.
- ***Stringent Performance guarantees and LDs*** for shortfall in performance and time delay
- Foster Wheeler engaged as PMC and Mott Mc Donald as ***Lender's Engineer***

Construction Risk Analysis

- Commissioning of *regasified LNG evacuation facility* guaranteed by **GAIL**
- **RGII signed EPC** with J.Ray Mcdermott for offshore facilities and Chiyoda-Mitsui JV for onshore facilities in April 2001
 - Experience in building Trains for ADGas and Oman LNG
- **Vessel Owners** awarded the contract for ship-building to Daewoo Shipyard, Korea on a firm price fixed time basis
 - In case of delay in providing ships, LDs more than 200% of Time Charter rates.
 - Guarantees from Vessel sponsors for making ships available on time

... Risk Analysis & Mitigation ...

■ Operations Phase Risks ...

■ During useful life of the project

- Failure of plant to perform as per technical specifications
- Cost of operating and maintaining plant increasing beyond budget

■ Disruptions in supply of fuel required to run the plant

... Risk Analysis & Mitigation ...

■ Petronet LNG Experience:

➤ GDF as a strategic partner

- A technical service agreement entered into with **GDF** under which GDF will supervise O&M for initial one to **two years** and also provide training to PLL staff.
- GDF is also **10% equity stake** holder which gives added comfort to both PLL and its lenders.

Operating Risk Analysis

- O&M Reserve created equivalent to 3 months O&M expenses plus 30 days Charter Hire payments
 - To take care of short term cash flow mis-matches

Operating Risk Analysis

- LNG supply ensured by entering into supply contract with RasGas:
 - Access to world's largest non-associated gas fields discovered in 1971
 - Proven reserves by SSI and NSAI
 - Operating rights 12x12km offshore block
 - In case of shortfall, State of Qatar to allocate additional blocks
 - RG supplying to Kogas since 1995
 - High levels of Plant availability
 - Sells to GDF on spot basis
 - PLL supply from Train 3 and Train 1&2
 - Train 1&2 has experienced a Plant availability of 98.6%
 - Successful supply history to Kogas

... Risk Analysis & Mitigation ...

- Petronet LNG Experience: Market Risk
 - *Huge demand supply deficit* for Natural Gas in the country
 - *Long Term Off-take Agreement* entered into with BPCL, GAIL & IOC; all financially strong Companies in the Hydrocarbon Sector.
 - Competitive price renegotiated with LNG supplier to make the regasified LNG affordable for all categories of end-consumers.
 - *Intermediate-offtakers* have entered into Gas Sale Agreements with *end-consumers*.

... Risk Analysis & Mitigation ...

- Petronet LNG Experience: Revenue risk
 - Long Term *GSPAs* with *financially strong intermediate* off-takers with annual take or pay provisions.
 - *Regasification charges* structured so as to ensure *base level of cash flows to the Company*.
 - Regasification charges to be *reviewed every three years* to take care of any unexpected increases in costs.
 - *LNG cost pass through at* actual to the intermediate off-takers.

... Risk Analysis & Mitigation ...

- Petronet LNG Experience: Interest Rate and Foreign Exchange Risk
 - Interest Rate Risk
 - Fixed Interest Rates on Loans to be reset every three years
 - Liquidity support agreement with offtakers – Debt service component under Annual Take or Pay liability to be serviced on regular basis.
 - Foreign Exchange Risk
 - Exchange rate fluctuations linked to the LNG costs also pass through to off-takers.
 - All long term loans denominated in Rupees to avoid any mismatch with the Rupee based regasification charges.

... Risk Analysis & Mitigation ...

- Political Force Majeure Risks:
 - Government actions/regulations affecting project.
 - Policy environment.
 - Extent of Government control.

... Risk Analysis & Mitigation ...

- Petronet LNG Experience:
 - Thrust given by Government of India to develop LNG Terminals to bridge the Demand-supply gap.
 - Favorable fiscal policy of Government of India for encouraging investments in LNG sector.
 - LNG imports under Open General License.
 - Low customs duty of 5% on LNG imports.
 - Customs duty on capital imports for LNG terminals reduced to 21%.
 - Nil excise duty on regasified LNG.
 - Provisions in GSPAs for restoring status quo in case of Change in Law.

... Risk Analysis & Mitigation ...

- Non-Political Force Majeure Risks ...
 - Events not under the control of project participants (acts of God, epidemics, strikes etc.).
 - Damage or failure of project facilities.
 - Non-harmonization of force majeure definitions across contracts (e.g. LNG SPA vis-à-vis GSPA).

... Risk Analysis & Mitigation ...

- Petronet LNG Experience:
 - Comprehensive Property Damage Insurance Coverage for Project
 - Business Interruption Insurances to cover fixed costs
 - Terrorism, Offshore & onshore liabilities Insurance Covers
 - Back to Back Force Majeure Clauses across project contracts.

... Risk Analysis & Mitigation ...

- Funding Risks ...
 - Non-availability of sufficient funds to complete the Project

... Risk Analysis & Mitigation ...

■ Petronet LNG Experience:

- Promoter Guaranteed short term loans converted into long term limited recourse project financing facilities on project completion.
- Shareholders / Share Subscription Agreements signed by Four sponsors, GDF and ADB for 65.2% equity.
- IPO completed for the balance equity.

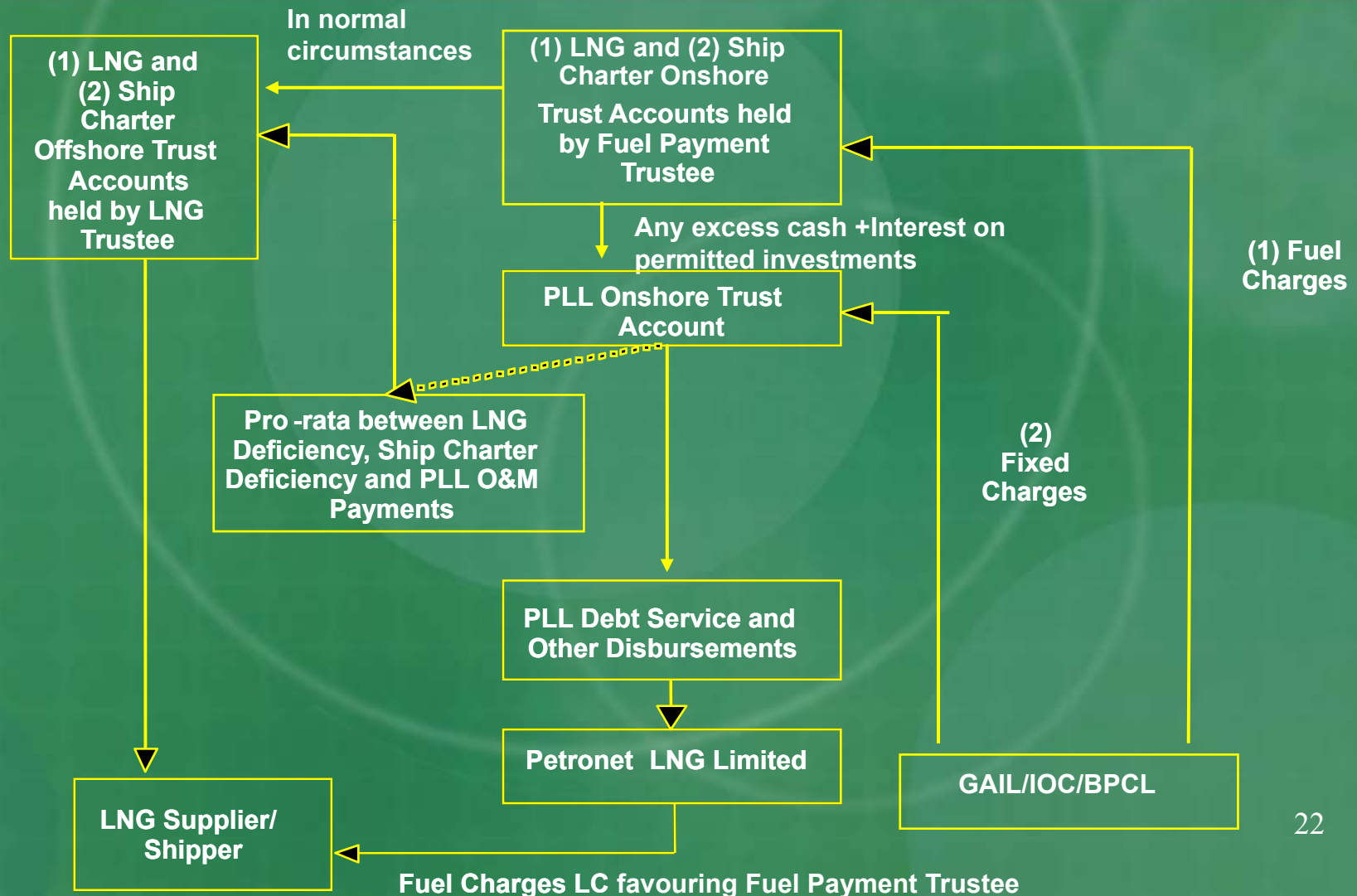
... Risk Analysis & Mitigation ...

- Credit Enhancements for Residual Risks ...
 - Trust & Retention Accounts through which all cash flows of Project Company are routed
 - Cash Flow Waterfall to Prioritize Payments
 - Debt Service Reserve Accounts for servicing debts in case of short term cash flow mis-matches.

... Risk Analysis & Mitigation ...

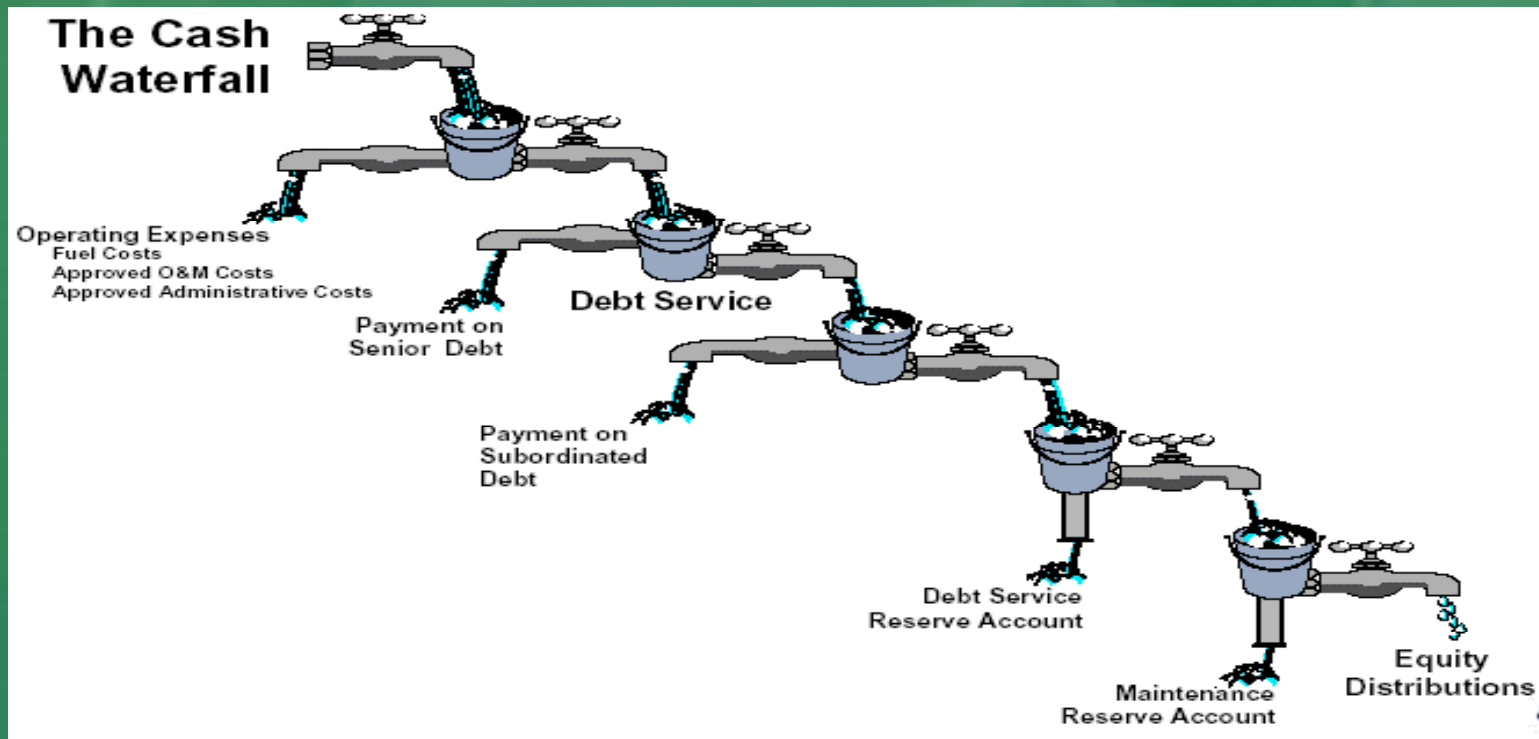
- Petronet LNG Experience:
 - Separate Trust & Retention Accounts, one for routing cash flows in respect of LNG and charter hire payments and second for all other cash flows.
 - Cash Flow Waterfall to Prioritize Payments
 - Six month debt service equivalent LC opened in lieu of DSRA.

Joint Payment Security Structure



Risk Analysis & Mitigation

■ Cash Flow Waterfall to Prioritize Payments



THANK YOU