From the drawing board to reality – Project Financing FLNG Projects

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The Bank of Tokyo-Mitsubishi UFJ, Ltd.
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FLNG Projects & financing status

E&P Company Own Use Units

- Petronas FLNG 1 Sato – first gas achieved December 2016
- Petronas FLNG 2 Rotan
  - Malaysia – first gas expected 2021
- Shell Prelude
  - New large scale FLNG technology – first gas expected H1 2018

Contractor owned and operated Units under Charter / Tolling Contract

- Exmar’s Caribbean FLNG
  - Cancelled – looking for new opportunity
- Golar GoFLNG Hilli
  - Cameroon – first gas expected 2018 – Chinese financing
- Fortuna FLNG
  - Ophir - Equatorial Guinea – first gas expected mid-2020 – Chinese financing
- Coral FLNG (financing in process)
  - Eni - Mozambique – first gas expected mid-2022
- Marine XII (early stage project negotiations)

The big question….can FLNG be Project Financed?

In addition to the familiar considerations for an offshore gas project, focus will be on risk allocation, commercial model and credit quality of project parties

Project Finance models

- Integrated LNG Liquefaction
- LNG Liquefaction Transfer Pricing
- LNG Liquefaction Tolling
- FPSO Bareboat Charter
- FPSO Service Contract

Supported by suitably sized sponsors / owners in a variety of ways

- Completion Guarantee
- Debt Service Undertaking
- Contingent Equity
- Performance Tests and periods

Structured such that Lenders are taking limited construction and initial performance risk and long term operations risks are well understood with technology that is proven and project sponsors who have ample experience

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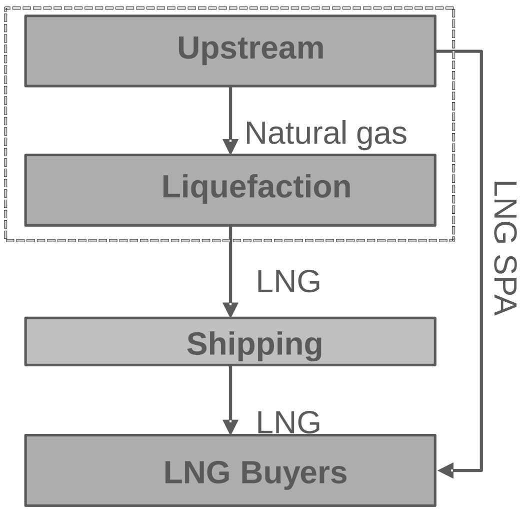
LNG Commercial Structures

INTEGRATED MODEL

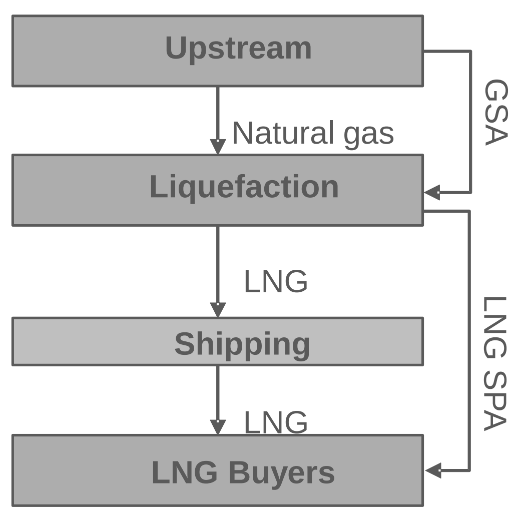


- LNG plant owner/operator is the upstream producer of gas
- Revenues derived from monetizing gas reserves by selling as LNG
- LNG Sale and Purchase Agreement with LNG buyers
- Plant owner / operator is the only user (multiple buyers)

Examples:

- Mozambique LNG Area 1 (Ongoing)
- Sakhalin II (2009)
- PNG LNG (2010)
- Ichthys LNG (2012)

GAS TRANSFER PRICING MODEL

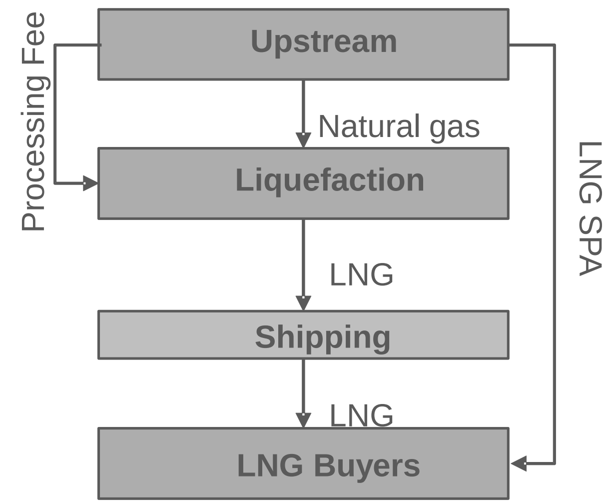


- LNG plant owner/operator purchases gas from upstream producers
- Revenues derived from margin between gas purchase and LNG sales
- GSA with upstream producers and LNG SPA with LNG buyers
- Potentially multiple suppliers and buyers

Examples:

- Yemen LNG (2008)
- Peru LNG (2008)
- Australia Pacific LNG (2012)
- Sabine Pass Train 1 and 2 (2012)
- DonggiSenoro (2014)

TOLLING MODEL



- LNG plant owner/operator may or may not have interest in the gas or LNG
- Processing Agreement with the sellers (or buyers) of LNG (Gas)
- Likely to be multiple customers

Examples:

- Egyptian LNG (2003)
- Cameron (2014)
- Freeport (2014, 2015)

Moody's methodology – structured risk analysis

1. Long Term Commercial Viability & Competitive Position

a) Competitive position
b) Industrial logic, alignment of economic interests

2. Stability of Net Cash Flows

a) Predictability of net cash flows
b) Technology & operating risks

3. Exposure to Event Risk

Range of events, probability and severity

4. Financial Metrics & Notching

a) Financial ratios
b) Liquidity
c) Project financing features
d) Refinancing risk
e) Construction risk

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1. Long Term Commercial Viability & Competitive Position

A projects long term success and debt repayment ability will depend on its long term commercial viability and competitive position

Sub factor 1a: Competitive Position

- Exposure to competition
- Projects competitiveness: cost, location, technology

Sub Factor 1b: Strategic and Industrial Logic, Alignment of Economic Interests

- Demonstrated need for end product and projects service
- Do contracts make sense for all key parties: price, rights, obligations

2. Stability of net cash flows

Certainty and control over cash flows supports a projects ability to make full, timely repayments

Sub Factor 2a: Predictability of Net Cash Flows

- Exposure to price and volume risk for both revenues and costs
- Nature and extent of mismatches

Sub-Factor 2b: Technology & Operating Risk

- Technology operational track record
- Complexity of technology (requirements for specific performance)
- Sponsors experience with technology
- Need for regular maintenance
- Operator experience and credit worthiness

3. Exposure to event risk

Projects are generally more exposed to various uncontrollable events that may increase costs or reduce revenues. Events can often be fatal for a project.

This factor encompasses a range of possible events, some of which include:

- Force Majeure
- Regulatory changes
- Tax
- Protests
- Destruction of asset (insurance)

Methodology measures the risks by looking at a number of factors:

- Range of possible events
- Severity
- Probability
- Mitigation

4. Financial Metrics & Notching

Financial metrics measure the projects robustness and repayment ability. Notching can have a material impact on the end rating, considering structural characteristics of the project financing

Financial metrics

- Debt Service Cover Ratio, Funds From Operations/Debt, breakeven
- Metrics used to apply sensitivities to prove robustness

1. Liquidity

- Level of liquidity incorporated in the structure (Debt Service Reserve, Major Maintenance Reserve, Insurance)

2. Project financing features

- Basic expected structural components for a project financing

3. Refinancing risk

- Consider any risk and mitigant (cash sweep) associated with a refinancing

4. Loss given default

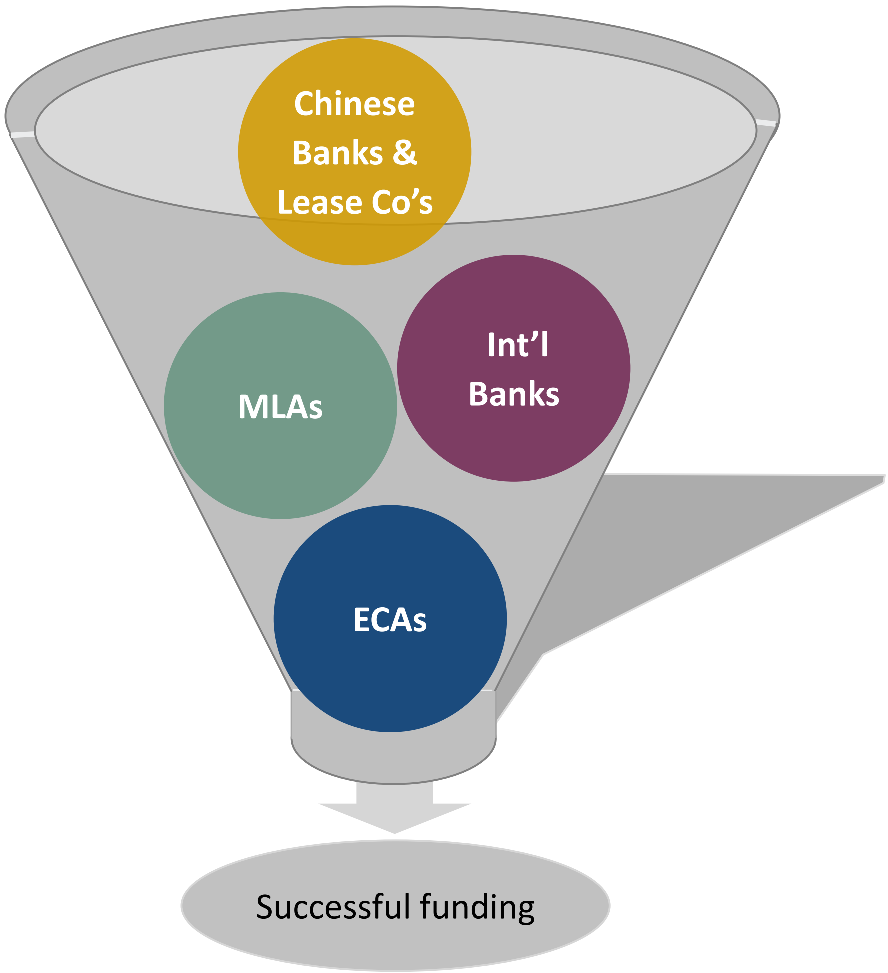
- Projects generally have lower loss given defaults than corporate debt

Construction risk & ramp up

- Construction and/or ramp up risk can be deemed significant
- Allocation of construction risks
- Assessment of EPC contractor and EPC contracts (LDs, guarantees, etc.)
- Construction period liquidity
- Construction period monitoring

Project Finance liquidity

Optimising the sources of funding will be critical in supporting an FLNG project financing
Will Chinese banks continue to be a primary source of liquidity for FLNG projects?



Export Credit Agencies (ECAs)

- ECAs provide financing either directly or via commercial banks benefiting from their insurance or guarantee cover
- Guarantee provide both commercial and political risk coverage; for guaranteed portion, banks benefit from capital relief which maximises ticket sizes
- Long tenors available (14+ years)

International Banks

- Requires full due diligence on all aspects of the Project plus extensive structuring and legal input
- Tenor likely to be shorter than ECA covered facilities

Multilaterals (MLAs)

- Multilaterals can provide direct funding and can enhance liquidity through the A/B loan structures
- Multilateral organisations may be interested in supporting a Project should it meet 'policy requirements'

Chinese Banks & Lease Co's

- Have demonstrated a strong credit appetite based upon an asset focused credit and lending strategy
- Have supported projects based on geopolitical relationships and priorities

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So, can FLNG Projects be Project Financed?

It depends:

- Robust positive risk analysis
- Credit worthy primary project participants
- Bespoke highly structured risk allocation and mitigation
- Substantial MLA and/or ECA support
- Deep pool of liquidity such as Chinese banks and leasing companies

Each project will be unique and it may well be possible to structure a workable risk sharing mechanism for a given project.

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The Bank of Tokyo – Mitsubishi UFJ, Ltd.
Ropemaker Place
25 Ropemaker St.
London, EC2Y 9AN

www.mufg.jp/english