



Financing Oil and Gas Projects in Sub-Saharan Africa

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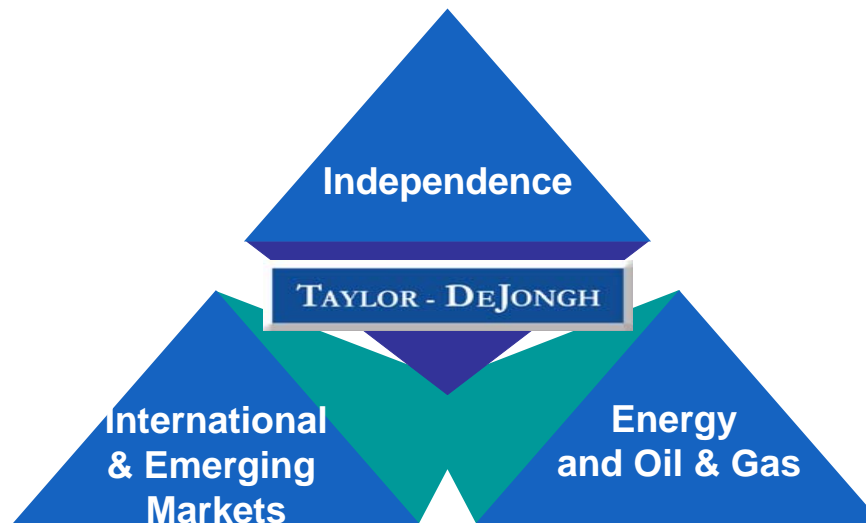
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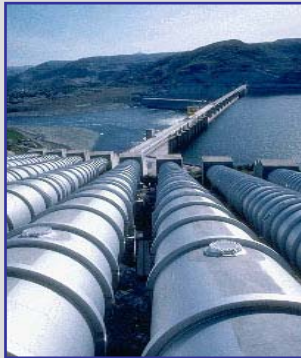
Taylor-DeJongh In Brief

- TDJ is an independent, specialist merchant banking firm that focuses on providing creative, objective capital solutions to its energy, oil & gas and infrastructure clients globally.
- With a track record of over 24 years of successes, TDJ's seasoned professionals bring the highest quality of independent, objective service to meeting its clients' capital needs in some of the world's most challenging environments.



Taylor-DeJongh – Industry Focus

Core Expertise



- Oil & Gas
- LNG
- GTL
- Petrochemicals and Refineries



- Pipelines
- Power Generation
- Metals & Mining

Other Sectors



- Telecommunications
- Water & Wastewater
- Industrial / Infrastructure
- Offset Programs

LNG Experience

Atlantic Basin

**Qatargas II
LNG Qatar**




FA to Lenders
US\$5 bn

**Equatorial
Guinea LNG**



FA to Sponsors
US\$1.7 bn

**Sonatrach,
Skikda Trains
4,5,6
Algeria**



FA and Debt
Arranger
US\$250 mm


**Atlantic LNG
Train 1
Trinidad**



FA to Sponsor
US\$1 bn

Pacific Basin

**Alaska LNG
and Pipeline
USA**



FA to Sponsor
US\$12 bn

**RasGas
LNG Train 3 Qatar**



FA to Sponsors
US\$1.4 bn

**Jamaica LNG
Jamaica**



FA to Sponsor
Confidential

**Angola LNG
Angola**



FA for Project
Company
US\$1.5 bn

**Tambeyneftegaz
Russia**



FA to Sponsor
Confidential

**Qatargas
Upstream
LNG Qatar**



FA to Lenders
US\$600 mm

Recent Oil and Gas developments in Sub-Saharan Africa

- LNG projects
 - Equatorial Guinea
 - \$1.7 bn, start-up planned for 2007
 - Sponsors: Marathon and GE Petrol
 - Target market: US
 - Angola
 - \$4 bn
 - Sponsors: Sonangol, Chevron, ExxonMobil, Total, BP
 - Target market: US
 - Nigeria: OK-LNG
 - 4-train facility, to come onstream in 2009-2010
 - Sponsors: Nigerian National Petroleum, Shell, BG, Chevron
- Recent oil and gas discoveries under development
 - Mauritania
 - Offshore gulf of Guinea

Characteristics of LNG projects in Sub-Saharan Africa

- Source of gas
 - Associated gas from oil developments: Angola
 - Dedicated gas fields: Equatorial Guinea
- Markets targeted for offtake
 - Primarily USA: Angola, Equatorial Guinea, Nigeria Train 6
 - Europe: Nigeria trains 1-5
- Structure of projects
 - Joint venture between national oil company and major international oil companies
 - Equatorial Guinea: GE Petrol 25%, Marathon 75%
 - Angola: Sonangol 22.8%, Chevron 36.4%, ExxonMobil 13.6% , Total 13.6%, BP 13.6%
 - National oil companies typically minority interest but operate.

Gas supply arrangements

- Critical to secure a strong gas supply for the liquefaction facility.
- Can be sourced from several oil fields if associated or from one dedicated gas field.
- Need security of supply and supply-or-pay agreements.
- Reserves life must provide a “tail” of at least 3-4 years beyond expected life of debt.
- Commercial structure:
 - Integrated LNG projects where gas price is netback all the way back to the resource (e.g. a PSC arrangement);
 - Or gas supply agreement at fixed price.

Offtake commitments

- Volume commitment on offtake: take or pay, with balance sheet backing.
- Long term SPAs with investment grade utilities used to be the rule.
- Today accessing the market and customers is on an integrated basis.
- Possibility of having one or multiple offtakers, but not “the market”.
- Pricing formula can be based on net market price realized – take a view to forward price curve (but lenders will always be more conservative).

Shipping

- Owning vs. chartering
 - Owning ships means more control but higher capital expenditures
 - Chartering more flexible, and rates are currently low
- In either case, the control of shipping means ultimate control of market swap optimality
 - Seasonal swaps
 - Excess cargos

Securing regasification capacities

- Access to regasification capacity is fundamental to project viability
 - Owned terminal, or
 - Contractual capacity
- Regasification alone is not sufficient
 - Pipeline access
 - Trunkline access and capacity
 - Customers

Risks associated with LNG projects

- Political risk
 - Change in law
 - Change in taxation
 - Social unrest
- Legal risk
 - Hydrocarbons law
 - Foreign investment law
 - Commercial code
 - Labor laws
- Government NOC funding risk

Why project finance?

- Despite high oil and gas prices, current LNG projects are unlikely to be financed on the balance sheet.
- Most IOCs will not “carry” or fund the equity stakes of NOCs.
- Multiple parties in transactions lends itself to project financing.
- Project finance is also favored by governments as it helps build the financial credibility of their country.
- Project finance in the region frequently includes ECAs
 - Political risk coverage;
 - Large country limits and lending capacity;
 - Local private capital insufficient so need to access other sources;
 - ECA pricing is typically lower than commercial banks.
 - ECAs have long track record in LNG financings (from Qatar to Oman to Nigeria).

Sources of funding

- Local capital pool limited, but international banks have shown interest in the region before:
 - Nigeria LNG in 2002: \$176 mm (see next slide for structure)
- World Bank, African Development Bank
- ECAs
 - Capacity
 - Lower rates than commercial banks
 - Have been involved in the region before
 - Nigeria LNG, 2002
 - Nigeria NGL, 1998
 - Political risk mitigation
 - Savvy LNG lenders
 - US ExIm
 - SACE
 - JBIC

Debt structure

- Nigeria LNG trains 4&5, 2002
 - total debt \$1,06 bn,
 - ECAs: \$620 bn (US ExIm, ECGD, SACE, GerlingNCM)
 - AfDB \$100 mm
 - Commercial banks \$176 mm
 - local banks \$160 mm
- Potential debt structure for Equatorial Guinea (70% of total capital):
 - Agency I: 50%
 - Agency II: 30%
 - Commercial banks: 20%

Conclusion

- There is a great deal of activity now in projects that are being pursued due to the high price of hydrocarbons.
- Several successful project financings, especially in Nigeria, have laid the groundwork for new transactions.
- Risk is still perceived as high by international banks and the local pool of capital is small, so ECAs and official agencies have a key role to play.
- Tight commercial structures are vital to bankability.
- Use of a knowledgeable independent financial advisor is important to speed and success of a project financing.



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