

# A very liquid market



The liquefied natural gas (LNG) sector worldwide has a promising future for project financiers and developers, according to John E Hehir, director at project advisory house Taylor-DeJongh, boosted largely by a ravenous US appetite for the commodity. Projects from Equatorial Guinea to Venezuela are marching onwards.

For project finance lenders and advisors seeking opportunities in the LNG liquefaction sector, today's Atlantic Basin landscape offers numerous intriguing alternatives. Naturally, some of the LNG projects contemplated within the Atlantic Basin might, perhaps by virtue of being equity funded, not result in immediate advisory or lending opportunities. Nevertheless, several recent converging factors could help to ensure that more of today's crop of potential LNG project financings will materialise than originally expected.

## More growth for US

Foremost among the factors

conspiring to help ensure LNG project development is the obvious increasing US demand for gas, which led to Alan Greenspan's recent well-publicised statements regarding the potential benefits of increased LNG imports. In testimonies to both the House Energy & Commerce Committee (June 10, 2003) and the Senate Energy Committee (July 10, 2003), Greenspan recommended a "major expansion" of US LNG receiving capacity, and described LNG as the "ultimate safety valve" in mitigating supply and demand imbalances. Reflecting trends which began long before Greenspan's

comments, at least 14 serious LNG receiving projects have been submitted for regulatory approval in recent months, including the expansion of the Elba Island facility and new facilities in Louisiana, Texas, California, the Bahamas and Mexico. Receiving terminal developers include both LNG liquefaction developers, such as ChevronTexaco, and entrepreneurs without liquefaction investments, such as Cheniere.

This growth in US receiving capacity is both a symptom of, and an enabler of, increased targeting of the US market by Atlantic Basin LNG liquefaction projects. To the extent future LNG projects entail more US LNG sales, expertise in the related risks (ie, Henry Hub price risk) will be demanded of LNG project finance advisors, who will need to inspire fresh evaluation of these risks by lenders. Additionally, there is the inclination of both the US and Europe to reduce their relative dependence on Middle East energy sources.

Foremost amongst potential beneficiaries of this trend are the nations of West Africa, to which the US is directing strong diplomatic attention. Simultaneously, West African LNG projects are developing strategic preferences of their own to sell more LNG into the US than historically, as European gas-on-gas competition increases. Notwithstanding this convenient alignment of US and West African LNG delivery interests, Europe was the original anchor market for Nigerian LNG production and could continue to be an important LNG destination for such West African LNG projects as Angola, Nigeria and Equatorial Guinea.

A secondary factor favouring the increased likelihood of LNG project fruition is the necessity in some countries to avoid gas flaring.

Finally, the combined effect of all of these factors will make the prospect of capturing economies of scale even more compelling for existing LNG projects, thereby bolstering the case for contemplated expansion projects, such as Atlantic LNG's Train 4, and additional Nigeria LNG Trains. While encouraging potential LNG project sponsors to develop new projects, the above-discussed factors effectively complicate the task each sponsor faces in assessing its prospective competitive position amongst an increasing number of entrants.

For example, a sponsor contemplating an LNG project must consider the competitiveness of their project relative to each of the numerous combinations of projects which could comprise the competitive landscape at the time their project commences operations. Additionally, the increasingly inconvenient location and geological formation of the gas resources being exploited in today's LNG projects has increased the relative weighting of technical considerations within a project's financeability analysis.

## Advisory qualities

Against this backdrop, the function and qualifications of LNG project finance advisors is changing. Not only must the advisor be versed in the myriad considerations impacting project competitiveness and financeability, but the assignments themselves are increasingly feasibility-oriented, in contrast to the traditional debt-raising assignment.

By definition, therefore, the business model of today's LNG advisor cannot be strictly predicated on also financing the project, in either the short or long term. Access to attractive finance-raising advisory work will require commitment to satisfying LNG sponsors' long lead-time pre-feasibility advisory needs.

Some sponsors, most notably Marathon Oil, ChevronTexaco, ExxonMobil, Total, and BP, have recently elected to retain financial advisors to help ensure that initial feasibility (or 'bankability') analysis and preliminary marketing negotiations are undertaken with due regard to the requirements of relevant LNG financiers.

In particular, given the location of most of today's LNG projects and the size of their funding needs, the preferences of ECAs and MLAs must be accommodated in the preliminary project development phase because, as seen in the recent US\$1 billion Nigeria LNG Plus expansion project, such lenders are indispensable.

The locations of most LNG projects present political risks which are acceptable only to ECAs, MLAs and to commercial banks which are either covered with political risk insurance or benefiting from implied political risk protection through co-lending arrangements.

So pervasive are ECA and MLA borrowing standards within the LNG project feasibility process that even LNG projects which are initially funded with sponsor equity are customarily structured to accommodate later ECA or MLA funding (ie, for an expansion or refinancing).

Besides an assured emphasis on ECA and MLA issues, prospective LNG project financings will likely entail local debt tranches where feasible, as well as separate ship financing arrangements. Such

ship financings broaden the project's funding access by tapping niche lenders, and by having higher leverage than the LNG project.

Moreover, ship financings are repaid via the main project's charter payments, which are senior to project-based debt service. Advisors experienced in resourcefully assembling similarly efficient debt source combinations, in any industry, will be viewed favorably in LNG advisory competitions.

### Potential lining up

The horizon of Atlantic Basin LNG projects potentially reaching final investment decision within the next three years is crowded with projects in Nigeria, Equatorial Guinea, Qatar, Angola, Algeria, Trinidad & Tobago, Venezuela, and perhaps even Egypt.

Qatar hosts two prospective LNG projects, sponsored by Qatar Petroleum Corporation, one with ExxonMobil (QatarGas 2) and the latest one announced with ConocoPhillips (QatarGas 3). QatarGas 2, consisting of two 7.7 mtpy trains and a large scale shipping operation to delivering LNG to the UK, is expected to start producing in the 2006-07 timeframe, with construction contracts to be awarded in mid 2004.

QatarGas 3, which is the subject of a 12-month feasibility study agreement signed on July 11, 2003, is reportedly aimed exclusively at the US import market, and would begin operations in 2008 or 2009. It is estimated to produce 7.5 mtpy, with a single train.

With the roughly US\$1 billion debt financing of the Nigeria LNG Plus expansion complete, Nigeria LNG's demonstrated ability and willingness to capture substantial economies of scale naturally fuels speculation regarding the timing of a sixth, or even seventh train (sponsors: NNPC, Shell, Total, ENI). The NLNG Plus

financing drew vast appetite from banks (local and international) and export credit agencies, partly owing to assignment to lenders of Train 1-3 assets and cashflows as well as to expansion cost advantages. NLNG has signed two agreements with BG to supply 2.5 million tons of LNG to the US annually, starting in 2005. Nigeria's Brass LNG Project (sponsors: NNPC, ConocoPhillips, ENI), expected to begin producing 5 mtpy of LNG in 2007, is also expected to entail a significant US sales component.

Further reflecting the previously-discussed trend in diversification by West African LNG projects toward US sales, Marathon Oil and GEPetrol have, with respect to their LNG project in Equatorial Guinea, signed a memorandum of understanding with BG in May 2003 to supply 3.4 million tons of LNG per year for 17 years. As announced, BG would purchase the gas primarily for its Lake Charles, Louisiana terminal beginning in 2007.

### Alternative developments

Elsewhere in West Africa, the sponsors of the Angola LNG Project (sponsors: Sonangol, ChevronTexaco, ExxonMobil, Total, BP) are reviewing development alternatives with respect to a 4 mtpy single train project with gas supplied mainly from associated gas resources operated by the sponsors.

In Trinidad & Tobago, the government approved in June 2003 the addition of a fourth train to the Atlantic LNG Project (sponsors: NGC, BG, BP and Repsol), which would be the largest of the project's trains at 5.2 mtpy production capacity (bringing total project capacity to 15 mtpy).

The US\$1.2 billion fourth train is expected to be operational in early 2006, and will reportedly be focused on US LNG sales.

Atlantic LNG had recently completed a US\$1 billion expansion entailing the addition of a second and third train; trains 1-3 will continue to serve the US and Spanish markets.

A potential rival to Atlantic LNG in serving the US market could be the US\$2.7 billion Marsical Sucre LNG Project in Venezuela, which could begin construction as soon as 2005. The project's feasibility is currently under review by the sponsor group (PDVSA, Shell, and Mitsubishi).

Europe's first LNG project, Snoehvit (1 train, 4.2 mln tpy), is expected to be operational at the end of 2006. Sonehvit, with a large sponsor group (Statoil, Total, Petro, Gaz de France, Norsk Hydro, Amerada Hess, RWE and Svenska Petroleum) and substantial estimated costs (about US\$6 billion) is expected to serve the French, Spanish, and US LNG markets.

The above-listed sampling of prospective LNG projects reflects several of the new traits characterising the LNG project landscape, namely larger scale, an increasing US sales destination element, and a decidedly emerging markets flavour.

These factors, combined with an increasingly urgent appreciation for US LNG imports, could increase the incentives for LNG project development, resulting in more opportunities for LNG advisors and lenders.



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