

## The Keys to Success of the Qatargas II Project

a report by

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As the global market for LNG is undergoing significant evolution and expansion, the business of LNG is itself changing rather dramatically. Therefore, the structures of the projects and their financing are also moving quickly. A prime example of these trends is the recent financial closing of the 15.6 million tonnes per annum (mtpa) US\$9.3 billion Qatargas II (QGII) upstream and liquefaction project. QGII is unique not only in size, but also in its financial and contractual structure.

### Integrating the Value Chain

Traditional LNG models have generally entailed an upstream investor group comprising state-owned enterprises and international oil and gas companies selling to a downstream credit-worthy off-taker on whose strength the entire capital commitment was based. However, with the evolution of the LNG industry, upstream participants have become increasingly more interested in downstream investments – and vice versa – as project sponsors search for greater participation throughout the value chain and lower overall risk profiles. Among the exceptional features of QGII is the integrated model of the project, in which almost the entire LNG value chain is controlled by one sponsor group. In the case of QGII, fully integrated ownership has allowed the project sponsors to internalise many of the risks, while providing netback in full.

Qatar Petroleum (QP) (70%) and ExxonMobil (30%) have partnered to sponsor the joint upstream and liquefaction project, being, initially, a single train with LNG export to the UK. Total recently signed a heads of agreement with QGII participants to take a 16.7% equity interest in the project's second train and to purchase up to 5.2mtpa for 25 years. The shipping component is being represented by two consortia in which QP and other Qatari state-owned entities have made large equity investments. On the downstream segment, gas from the first train is destined for the South Hook Terminal in Milford Haven, UK. ExxonMobil Gas Marketing Europe Ltd. (EMGME), a wholly owned subsidiary of ExxonMobil, has signed a 25-year gas sales and purchase agreement (GSPA) for 100% of the volume of train 1.

Although the project sponsors were integrated from upstream development to off-take agreements, each segment was separately financed, which created a challenge for lenders to insure that each part of the LNG value chain was technically and financially sound and had obtained the necessary legal documentation. Issues arising at any one point in the value chain could, potentially, undermine the viability of the other LNG component projects. Consequently, upstream and liquefaction lenders were keen to address downstream issues, such as regulatory risk, third-party access, interconnection with the UK gas grid and the UK gas supply and demand equation, in order to fully assess the future success of the Qatar-based liquefaction project.

### Risk Allocation

As with any successful project financing, project risks were allocated to those most willing and able to accept them in order to obtain the necessary financial support. Traditionally, upstream LNG developments were made on the back of long-term GSPAs, which largely shielded lenders from volume and price risk by requiring off-takers to commit to volume obligations and crude-linked price indexing with floor price guarantees. However, as the growing European and North American gas industries have liberalised over the past few years, off-takers in these regions have sought to reduce the risks they bear by negotiating more flexible contract provisions.

QGII is one of the first LNG projects to break the mould of crude-linked pricing by setting the purchase agreement against the UK gas market price without a floor agreement. This element has, in effect, passed on UK (and even Northern European) market price risk to the lenders in the period after commercial operation, when sponsor guarantees fall away. Price risk pass-through was possible due to the integrated nature of the project and the strong current and forecast future demand/supply imbalance for the UK natural gas markets, driven, in part, by decreasing North Sea gas production. In addition, lenders were assured by the high credit rating of EMGME as the train 1 off-taker.

In addition, it must be noted that a very substantial percentage of the QGII revenue and profitability stream is attributable to the sale of condensates and gas liquids out of the project. In fact, this revenue stream, which is relatively unique, represents a major revenue and risk diversification element for the project, as well as for its owners and lenders itself. The gas liquids production represents a significant volume to be sold on the global markets, primarily in Asia, as a feedstock for chemical processing, refinery feedstock and related industrial uses. In the same way as the LNG off-take volume commitments were required to satisfy lenders, so were commitments by sponsor-related off-takers for the entire volume of liquids production. Shipping and access to market were also addressed, although there is far greater flexibility in shipping arrangements when using regular-sized vessels than when using the special-built super-sized LNG tankers (210,000cm<sup>3</sup>) that were the basis of the QGII LNG shipping programme. As was the case with the gas market price risk, there was open market price risk on all the liquids volumes from QGII, which was also acceptable to the lenders.

### Sizing up the Project

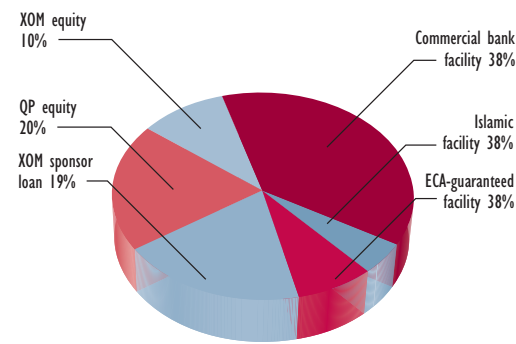
In designing QGII, project sponsors were interested in capturing value through economies of scale, which, in effect, meant larger facilities at every step in the LNG process. Among the technological breakthroughs associated with QGII was the use of Air Products' AP-X liquefaction units that were, as the company reported last year, 50% larger than any liquefaction train presently operating or in construction.

The shipping component of the project was also 'super-sized' to accommodate the volume of exports from the LNG plant. Eight Q-Flex LNG vessels ranging in size from 210,000m<sup>3</sup> to 216,000m<sup>3</sup> – roughly 50% larger than standard LNG carriers – were assigned to the project through 25-year time charter agreements. Larger carriers drastically improve project economics, particularly for long-haul routes, such as from Qatar to the UK.

As the development grew in size, project sponsors and their financial advisors were challenged with finding sufficient sources of debt to meet capital requirements. This was complicated by the fact that commercial bank lenders limit their exposure by region and industry. Accordingly, the QGII project sponsors felt that they needed to acquire additional lending capacity elsewhere to complement commercial bank lending.

In most upstream and liquefaction projects located in the developing world, export credit agency (ECA) support is sought to improve the credit profile of the project by transferring political risk away from commercial lenders. In the case of QGII, where the state sponsor carries a high credit rating, ECAs were

Figure 1: QGII Upstream/liquefaction Investment Breakdown



approached not necessarily for political risk insurance, but rather as another source for increasing the debt capacity of the project. The Export-Import Bank of the United States (the Ex-Im Bank) and SACE made up the ECA tranche, lending US\$405 million and US\$400 million, respectively, at relatively low margins due to strong project economics. In addition to providing added project capital, ECA participation, which requires adhering to rigorous legal and environmental standards, gave added assurance to lenders that every detail of the project had been scrutinised.

Over the past decade, growth and liquidity in the Islamic bank market has provided many Middle East projects with new sources of capital. In QGII, project sponsors were able to tap into this growing market, involving six regional banks in an Islamic tranche providing 15-year loans that essentially mirrored the commercial arrangement in pricing structure. While Islamic banks have become an increasingly important part of regional project development and while Islamic financial instruments have become more sophisticated and adaptable, it was still essential for project sponsors and their associated advisors to be aware of the necessary steps to be taken with these types of financial institution, such as tailoring security documents to comply with sharia law and providing *pari passu* treatment of all senior debt.

### Conclusion

Much of the success in QGII can be attributed to the project sponsors' ability to successfully link a large natural gas reserve to a downstream market requiring an increasing supply of imported gas in the future. Most critically, however, the integrated project sponsorship throughout the entire LNG chain from two established oil and gas companies assured lenders that the overall project risk was minimal. This allowed ExxonMobil and QP to pass on risks that were previously considered unacceptable for lenders to bear. QGII proved that an integrated LNG model could be successfully applied and financed, which should allow future such projects to follow. ■