EXXONMOBIL AND QATAR PETROLEUM: AN EXAMPLE OF SUCCESSFUL IOC-NOC COOPERATION

A case study prepared for the International Gas Union’s Gas Market Integration Task Force.
becoming a driving force for LNG market integration in both the Pacific and Atlantic Basins.

Established in 1974 and responsible for managing all aspects of Qatar’s oil and gas activities including exploration and production, Qatar Petroleum (QP) is Qatar’s National Oil Company (NOC). Oil and gas revenues provided some 61.9% of Qatar’s GDP in 2006, so the oil and gas sector is crucial to the Qatari economy.2 According to the Economist Intelligence Unit, Qatar’s economic growth is expected to rise to 12.4% in 2008 from an estimated 7.8% in 2007 due mainly to LNG production and exports.3 Therefore, LNG exports in particular are a great driving force behind Qatar’s economic expansion, while oil has been the more traditional source of Qatar’s income (oil exports accounted for 70% of total Qatari government budget revenues and 40% of Qatari GDP).4

In order to strengthen its presence along the value chain and enhance security of demand as well as gaining access to technological and marketing know-how, QP turned to US energy giant ExxonMobil (Exxon) as the partner of choice to help develop and expand Qatar’s LNG projects from the production platform to the re-gasification terminal. Essentially, the upstream Qatari LNG projects are a joint venture with primarily Exxon, where the latter has a leading position as a foreign investor, owning a considerable share in almost every Qatari project. While Exxon is allowed to gain access to vital reserves, QP is ensured vital large-scale access to markets as well as technological know-how. This represents a unique cooperative setting between an NOC on the one hand and an International Oil Company (IOC) on the other.

With a liquefaction capacity of 41.7 bcm/year (at the end of 2007) and a projected capacity of 105.5 bcm/year by 2011, Qatar is the fastest growing LNG producer in the world.1 Qatar became the top LNG exporter in 2006 with 33 bcm,outpacing large traditional producers, such as Indonesia, Malaysia and Algeria. Endowed with the third-largest global gas reserves (after Russia and Iran) and owing to its geographical location, Qatar is well-placed to play a leading role in the world’s evolving LNG market by


2 With a population of around 900,000, Qatari’s enjoy a GDP per capita of some $65,500, Economist Intelligence Unit, Qatar – Country Report, (London: Economist Intelligence Unit, October 2007), p. 5.

3 Economist Intelligence Unit, Qatar – Country Report, (London: Economist Intelligence Unit, November 2007), p. 6

Qatar as a swing producer with large reserves

According to the IEA, Qatar’s main advantages as an LNG producer and exporter include: its enormous gas reserves (some 25 tcm) with high liquids content, a well-developed port (Ras Laffan) with space for expansion, quick government decision-making, only two partners in RasGas 2 and 3 and Qatargas 2, 3 and 4 when investment decisions were taken, a stable political climate (in an albeit unstable region) which provides for a favourable credit rating, a well-coordinated commercial and public environment as well as a good geographical location. Indeed, due to Qatar’s location between the Atlantic and Pacific Basins, and its harbour facilities, the country is ideally positioned to become a multi-market “swing” producer through LNG exports. The term “swing” producer pertains in this case to the ability of Qatar to serve both basins, Pacific and Atlantic. Indeed, Gulf LNG producers have historically always enjoyed open access to both the Atlantic and Pacific Basins.


IMEX, initially located at the Qatar Financial Centre in Doha, will move to form the cornerstone of Energy City, a new $2.6 billion business district.
known for instability and for being at the heart of global energy security concerns, at least as regards oil exports. The Straits of Hormuz, already a major bottleneck for some 40% of the world’s oil flows, will become even more important in the future for both Qatar and consuming countries as both oil— and notably also LNG exports—from the region grow. With long-standing disputes as yet unresolved between Qatar and its neighbour Iran, and the overall stand-off between the US and Iran, Qatar is in a difficult geopolitical position.

At the same time, the Qatar “swing” factor also lies in a new pricing system which it is developing through the International Mercantile Exchange (IMEX) in Doha to 1) expand LNG spot trading and 2) become the leading driver of market liquidity with the creation of an LNG financial derivative and facilities for trading a cargo-based contract. This IMEX system basically boils down to establishing an LNG or energy bourse à la NYMEX to trade LNG spot cargoes.7 Combining the huge reserves base with vertical integration, access to multiple markets across both LNG trading basins, immense prospective liquefaction capacity and a potential to become a price-making centre, Qatar as such (together with QP) is ideally positioned to become the world’s LNG capital and market leader on a global level.

Qatar is a small country with very large gas reserves, endowed with various blessings as described above, but it is located in a region

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QATAR PETROLEUM AND EXXONMOBIL: OWNERSHIP STRUCTURE IN RE-GASIFICATION AND LIQUEFACTION ASSETS

<table>
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<tr>
<th>Re-gasification terminal</th>
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<th>Re-gasification terminal share</th>
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<td>Adriatic LNG (Offshore)</td>
<td>Italy</td>
<td>QP 45%; ExxonMobil 45%; Edison 10%</td>
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<td>South Hook LNG (Milford Haven)</td>
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<td>QP 67.5%; ExxonMobil 24.15%; Total 8.35%</td>
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<td>Golden Pass LNG (Texas)</td>
<td>US</td>
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<th>Liquefaction terminal (Qatar)</th>
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<td>10MT/y</td>
<td>QP 65%; ExxonMobil 10%; Total 10%; Marubeni 7.5%; Mitsui 7.5%</td>
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<td>Qatargas 2 (Train 5)</td>
<td>7.8MT/y</td>
<td>QP 65%; ExxonMobil 18.3%; Total 16.7%</td>
<td>2009</td>
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<tr>
<td>Qatargas 3</td>
<td>7.8MT/y</td>
<td>QP 68.5%; ConocoPhillips 30%; Mitsui 1.5%</td>
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<td>QP 70%; Shell 30%</td>
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<td>RastGas 1 (Trains 1-2)</td>
<td>6.6MT/y</td>
<td>QP 63%; ExxonMobil 25%; others 12% (Asian players)</td>
<td>1999</td>
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<tr>
<td>RastGas 2 (Train 3)</td>
<td>4.7MT/y</td>
<td>QP 70%; ExxonMobil 30%</td>
<td>2004</td>
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<tr>
<td>RastGas 2 (Train 4)</td>
<td>4.7MT/y</td>
<td>QP 70%; ExxonMobil 30%</td>
<td>2005</td>
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<tr>
<td>RastGas 2 (Train 5)</td>
<td>4.7MT/y</td>
<td>QP 70%; ExxonMobil 30%</td>
<td>2007</td>
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<td>RastGas 3 (Train 6)</td>
<td>7.8MT/y</td>
<td>QP 70%; ExxonMobil 30%</td>
<td>2009</td>
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<td>RastGas 3 (Train 7)</td>
<td>7.8MT/y</td>
<td>QP 70%; ExxonMobil 30%</td>
<td>2010</td>
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Exxon on the other hand, is not even listed in the top 10 companies as far as reserves are concerned but is a major gas producer and ranks in the top 10 for liquefaction capacity. Meanwhile, Exxon owns significant shares in three re-gasification terminals in the Atlantic Basin (see Table 1), where the bulk of the incremental LNG demand growth is expected to materialise in the next few years according to most projections (including those of the IEA). Exxon is active in upstream exploration and production of oil and gas, gas and power generation, downstream refining and marketing of oil products, and the production of chemicals. The company is known for efficiency and cost effectiveness, leveraging on its financial strength, reputable corporate structure and business brand to make its presence in the global arena felt.

more salience, a situation which suits overall US strategic interests in the Gulf region.

**ExxonMobil as one of the largest vertically integrated IOCs**
Hence it is not entirely unreasonable to establish a link between Qatar’s concerns for its security and its resource wealth along with US military presence and, most notably, ExxonMobil’s large LNG upstream stakes. One could see this as a nexus of interests which suit both Qatar and the US. QP dominates the rankings together with other NOCs when it comes to fossil fuel reserves, QP having the third largest in the world (some 175 billion barrels of oil equivalent) after the National Iranian Oil Company (NIOC) and Saudi Aramco, while in terms of gas reserves it ranks second after NIOC.
Exxon is a preferred partner for QP because of its expertise, its vertical integration across the value chain and the fact that it is a US player with US government backing. Specifically, Exxon holds several advantages for QP and Qatar in general: it has a strong cash flow and pristine balance sheet, which enable it to make opportunistic deals, giving Exxon excellent financial flexibility and the best possible credit rating. For QP, this comes in handy, attracting further capital to its projects at low capital costs. Exxon has a proven track record in terms of overall efficiency gains through its global functional organisation. It is one of the most recognised and trusted companies in the oil and gas industry, its brand associated with vast and diverse experience as well as technological leadership. With a global presence in over 200 countries and integrated operations, Exxon is well positioned to benefit from new opportunities in the evolving power industry. For QP, this can only mean security of access to markets while offering Exxon ample incentives to invest in upstream projects and their development. In return, Exxon also offers security and stability in Qatar itself through its strong ties to the US government. Qatar’s investment policy, its political ties, secure borders and open doors policy, and its Trade and Investment Framework Agreement (TIFA) interact with the security Exxon offers as well as its technological leadership.

Ownership structure upstream
Both Exxon and QP prefer strategic mega projects which offer economies of scale and swing capacity both in terms of costs as well as access to different markets, and ultimately, spot volume development. QP takes the largest share by far in any of its upstream liquefaction projects, allowing foreign partners, mostly buyers with little or no reserves, to act as both developers and owners of the projects in question. Shell, for example, has been awarded 30% in Qatargas 4 and ConocoPhillips has been awarded a similar share in Qatargas 3 while Total owns 10% in Qatargas 1 (trains 1 through 3) and 16.7% in Qatargas 2, train 2. Japanese and Korean buyers, who have a high base load requirement for LNG, own parts of Qatargas 1 and 3 as well as of RasGas 1. The Pacific buyers obviously go to great lengths to secure volumes as far upstream as possible. Exxon is by far the largest of all foreign shareholders in Qatar, since it owns up to 30% in all but two projects.

The ownership structure of the re-gasification and liquefaction terminals for both QP and Exxon reflects the interests both parties have across the value chain as well as the fact that QP sees Exxon as its preferred partner. The ultimate goal of this structure is partially to maximise the value of increasingly flexible LNG flows, but primarily to ensure access to different markets on a long-term basis, since most if not all LNG contracts involving Qatar are long-term in nature. The intention, however, is to create increased room for short-term spot volumes, which is linked to Qatar’s IMEX plans. These spot volumes will become crucial as marginal supplies to different markets, flowing to whichever market offers the highest price. The primary objectives of QP are to maximise the value of its resources, in support of Qatari state objectives for development goals. Typical of NOCs is their desire to maximise the value of their resources over the longer run, as opposed to short-run value maximisation associated mainly with the IOCs. This is due to their overall objectives and the role they play in the domestic economies of producer countries.

Production and downstream marketing strategy in the value chain
Coming back to the ownership structure upstream, Exxon owns, as mentioned above, major shares in most Qatari liquefaction projects. The RasGas 3 project, with its two trains is projected to produce 15.6 mtpa (21.5 bcm) from 2009 onwards, making it by far the largest project in the pipeline, and the standard 70/30 ownership percentage rule
Atlantic Basin is becoming more of a swing market for LNG.

The Atlantic Basin target markets are thus the US and north-west and southern Europe as far as Exxon and QP joint projects are concerned. The goals of both companies coincide, aiming to seize a sizeable chunk of market share in each major market. Overall, Qatar has long-term contracts with off-takers in Spain, Japan, Korea, India, the US, the UK, Belgium, Italy and Taiwan, China. Figure 1 (over) provides an overview of Qatar’s projected LNG export by market.

Examining the ownership structure in the regasification terminals available to Exxon and QP, it becomes clear that, when taking into account the upstream Qatari stakes they have, both parties aim to cooperate and leverage their positions up- and downstream together in a large strategic alliance which will allow them to re-gasify on either side of the Atlantic Basin. The stakes each party has in the re-gasification terminals thus allow them to lock-in the best possible profits depending on arbitrage.

*QP is also involved in gas-to-liquids (GTL) projects and the massive North Field has a high liquids content. Qatar placed a moratorium on new development of the field in 2006 in order to assess whether the reservoir is being developed too quickly, which could damage its health and long-term export potential. This means Qatar will not invest in new projects until the end of the current investment period, at the earliest.*

QP owns 45%, 67.5% and 70% in three re-gasification terminals in Italy, the UK and the US, respectively, which are due to start up in 2009 and in 2010. Simultaneously, Exxon owns 45% and 24.15% in the two first re-gasification terminals. In late 2007, Exxon announced plans to invest $1 billion to set up an offshore floating re-gasification terminal 32 kilometres off the coast of New Jersey (the first re-gasification terminal built in 30 years on the Eastern US coast). This will further add to its downstream re-gasification capabilities and fits the overall pattern of vertical integration. Re-gasification in the Pacific Basin is mostly owned by either Japanese or Korean downstream buyers, and simultaneously the

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8 Global Insight, Global LNG Outlook 2007, p. 15.
possibilities between Henry Hub and, increasingly in the future NBP (the UK’s National Balancing Point) as well as IMEX. The cooperative setting QP and Exxon have committed to is clearly a long-term strategy that is aimed at taking full advantage of each other’s dominant positions, enabling them to reap the benefits of unique IOC-NOC synergies.

Together, QP and Exxon form a powerful duo in the Atlantic Basin especially (while QP already has a strong position in the Pacific Basin), with low cost resources upstream and ample re-gasification possibilities on the downstream side. With short-term trade and increased flexibility on the rise, both giants will be able to leverage Qatar’s unique position and advantages in order to maximise arbitrage gains as well as long-run security of demand and market share in three different markets. The above demonstrates the potential and the success of IOC-NOC cooperation on a large scale.

● **Some contractual issues**

On a global scale, the issue of security of demand is crucial for LNG producers. Major up-front investments have to be made, with further incremental investments in tailor-made vessels, liquefaction and re-gasification plants which have to be constructed for operations. Before a single cubic metre of gas can be sold, security of income is a major initial concern.

The successful cooperation between QP and Exxon, which occurs on a global scale, is a leading force in the global energy trade. In order to secure a stable income, QP divides various upstream production volumes into flexible cargoes, to be allocated to the Asian, US and/or European markets. In doing so, the average income is stabilised over time whilst maintaining the ability to tap into any LNG market worldwide, avoiding the disadvantages of being captive to any single, regional market. Furthermore, the supplier is also able to optimise and arbitrage on a global scale, between the LNG markets in Asia, US and/or Europe. Any price opportunity occurring can be captured by the supplier.

QP’s cooperation with Exxon is set into this framework, where Exxon is the global marketer, owning and operating LNG regasification terminals. Thus while QP is focused on the upstream side, Exxon has the focus on the downstream side. By doing so, the partnership installed “market or pay” clauses in the contractual framework, where the gas marketer, Exxon, is responsible to market certain Qatari LNG volumes over agreed regional markets (Asia, US or Europe), ensuring QP’s security of demand while arbitraging between different markets when price differentials permit sufficient additional gains. This combination of strengths and sharing of risks and benefits underscores the uniqueness of Exxon’s win-win partnership with QP.

This paper was prepared by Timothy Boon von Ochssée in cooperation with GasTerra and Petronas Task Force members for IGU’s Gas Market Integration Task Force. Mr Boon von Ochssée worked on the paper while a guest researcher with the Clingendael International Energy Programme (www.clingendael.nl), and is currently studying for a PhD at the University of Groningen.