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Chemicals in Qatar: Taking a Step Back

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Energy is power, and Qatar's power comes from its abundance of cheap energy through its natural gas reserves. Attainment of the title as the largest exporter globally of liquefied natural gas (LNG) was made possible through the diligent efforts of Qatar's government to develop the industry through the necessary infrastructure, capital investments and foreign partnerships for the export market. Having established a world-class LNG export industry and local feedstock system, Qatar has begun to diversify its already rich economy by looking toward the downstream sector and has taken significant steps toward developing Qatar's industrial base, including chemicals and petrochemicals.

Qatar Petroleum (QP), the national oil and gas company, which owns a stake in nearly all the major chemical projects in the country, has long sought to be a worldwide player, but the country needed the expertise and systems from abroad to achieve the highest international standards within the designated industrial areas. An example of how the country has created state-of-the-art industrial areas can be seen in Gasal, a partnership formed between QP, Air Liquide and Qatar Industrial Manufacturing Company (QIMC). Air Liquide brought the technology and operational know-how and QIMC was already present with local nitrogen production capacity and contributed its own vision for how the market should develop based on its local knowledge. Through the efficient cooperation of these three entities, "Gasal has been able to plan its development efforts in order to meet the need for a highly reliable, cost effective and safe supply of industrial gases," according to Eid Mubarak Al-Muhannadi, CEO of Gasal.

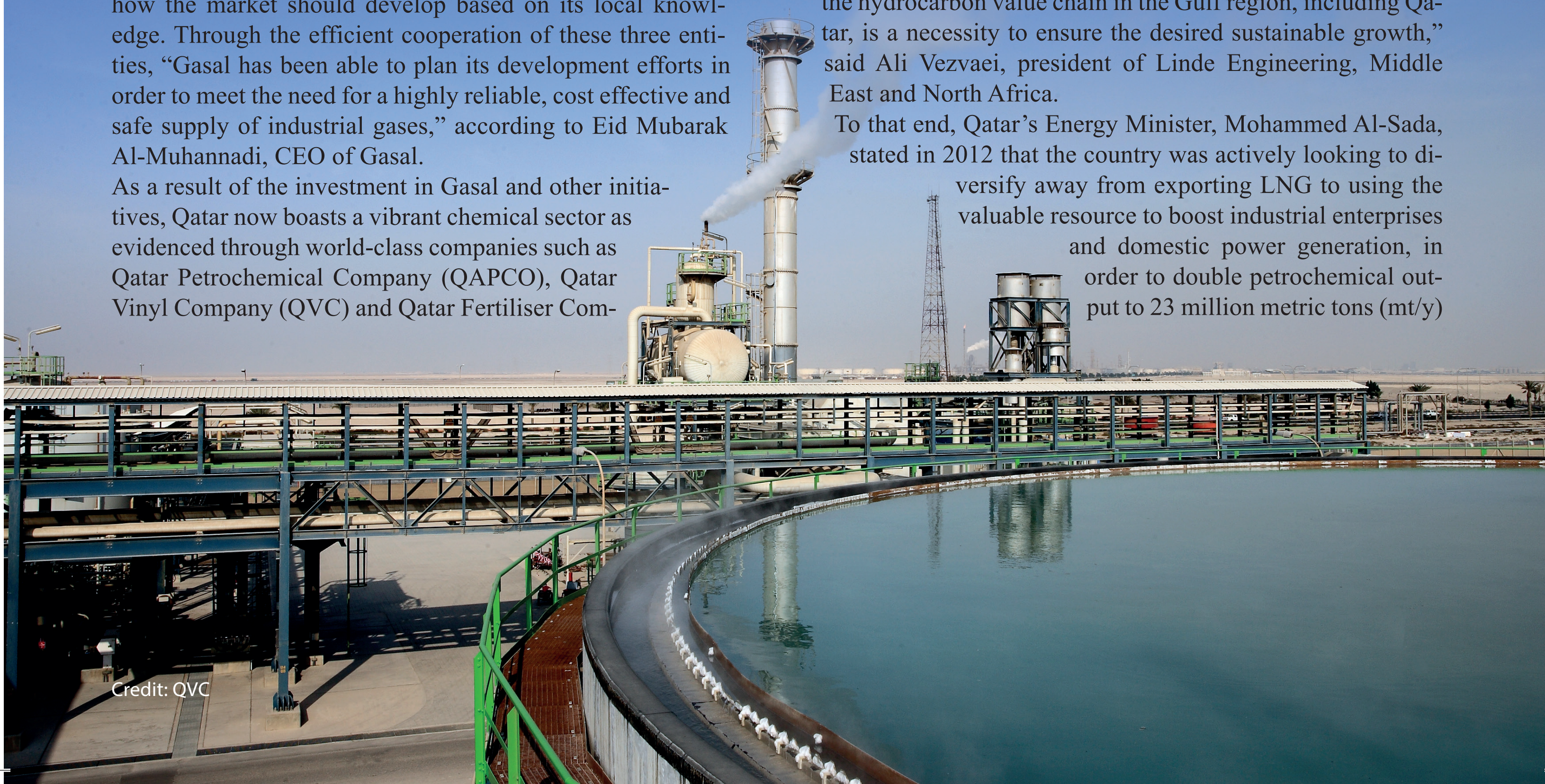
As a result of the investment in Gasal and other initiatives, Qatar now boasts a vibrant chemical sector as evidenced through world-class companies such as Qatar Petrochemical Company (QAPCO), Qatar Vinyl Company (QVC) and Qatar Fertiliser Company (QAFCO) to name a few. In 2014, chemical exports from Qatar amounted to 3.19% of its $101 billion total exports, with nitrogenous fertilizers being the biggest chemical product exported at $1.33 billion, followed by acyclic hydrocarbons ($536 million) and ammonia ($334 million).

Clearly, the country has taken the necessary steps to develop a robust chemical and petrochemical sector, yet, given that Qatar's small population results in a GDP per capita the highest in the world and job creation is less of a concern, the question remains, is now the time for the country to further pursue its industrial ambitions? Tilman Ehret, president of Evonik for Middle East & North Africa said: "The decision comes down to how much the country earns from gas sales versus how much the country could earn from the added value revenues from the development of the downstream industry."

AL KARAANA AND AL SEJEEL: NIPPED IN THE BUD

For years, oil producing countries have sought a diversification strategy for export and revenue streams. "The enhancement of the hydrocarbon value chain in the Gulf region, including Qatar, is a necessity to ensure the desired sustainable growth," said Ali Vezvaei, president of Linde Engineering, Middle East and North Africa.

To that end, Qatar's Energy Minister, Mohammed Al-Sada, stated in 2012 that the country was actively looking to diversify away from exporting LNG to using the valuable resource to boost industrial enterprises and domestic power generation, in order to double petrochemical output to 23 million metric tons (mt/y)



Credit: QVC


Tilman Ehret, president, Evonik Middle East & North Africa


Ali Vezvaei, president, Linde Engineering, Middle East and North Africa


Hamad Rashed Al-Nuaimi, CEO, QVC

by 2020, a long way to go from the 2014 output of 10 million mt/y.

When oil is down, however, everything is down. “The fall in oil prices since the middle of 2014 by about 55% has had an impact on petrochemical product prices and has raised buyer uncertainty,” states the Gulf Petrochemical Association (GPCA) in its annual report, “The new reality creates new scenarios which consequently impacted some planned projects in the GCC region.”

Natural-gas-rich Qatar was no exception to this commodity plunge and has taken action in light of the depressed prices. Shortly after oil prices began to fall in 2014 with no end in sight, Qatar halted its two multi-billion dollars, world-class petrochemicals projects: Al Karaana and Al Sejeel.

Al Sejeel, a venture to construct a world-scale ethylene cracker between QAPCO and the state energy company QP, valued at $6 billion, was put on hold, in an effort to reevaluate and assess alternative investments and petrochemical projects that will yield better economic returns.

The Al Karaana development, QP’s 80-20 partnership with Shell, intended to produce 1.5 million mt/y of mono-ethylene glycol and 300 kilotonnes/y of linear alpha olefin, would have been significant and in line with Qatar’s petrochemical industry expansion and ambitions. It was an ideal project given Qatar’s cheap and plentiful gas feedstock combined with Shell’s technology and expertise in building large-scale plants for processing petroleum into various industrial chemicals. Al Karaana, despite its promise, was shelved due to its high capital costs that would render it commercially unfeasible in the current economic climate.

Such cancellations are not unique to Qatar, however. The huge drop in the price of oil also forced SABIC and Shell not to pursue the development of the planned polyurethane project in Jubail, Saudi Arabia. “Before oil and gas prices fell,” said Evonik’s Ehret, “the decision was clear to develop the downstream to diversify the country’s income. At the moment, there seems to be a critical discussion amongst Qatari decision makers as to whether the country should enhance more downstream or keep the business model of producing as much gas as possible and then selling it to the world market at a good price.”

For the time being, its seems that QP is shifting its focus to its core business, oil and gas. In an official statement released in 2015, QP’s president and CEO Saad Sherida Al-Kaabi stated: “We are in a period of oversupply in the industry and we need to be very efficient as an organization. While we have no control over the markets and prices, we do have control over our cost and expenditure…We have 'right-sized' our organization to be more dynamic and efficient, and to be able to cope with our strategic needs in the new business environment. We now have total company focus on core businesses, and are exiting any non-core businesses activities."

The petrochemical sector is further unaided by the fact that "Qatar is very busy with major infrastructure projects associated with the World Cup and the metro, which have been prioritized, given their capital and resource intensity," according to Linde Engineering's Vezvaei. "Once you move into 2016 and 2017, I would expect a reevaluation and either reallocate the [Al Sejeel and Al Karaana] gas to a project, or distribute it to two or three smaller projects in order to diversify the risk and have a better control of their production even if an economy of scale doesn't kick in…The Al Sejeel and Al Karanaa projects are neither postponed, nor to be reevaluated. The projects, the way they were defined, have been cancelled. However, the aspiration for a project of that nature is still there and will emerge in a smarter and more efficient structure, whether of the previous size or a different constellation…Perhaps diversification of feedstock and integration of the value streams would be an avenue to be explored. A flexible mixed feed cracker with carefully selected derivative streams could yield a competitive return on investment, if executed properly."

DESPITE CHALLENGES, PRIVATE PLAYERS ARE COMMITTED TO QATAR AND ITS VALUE PROPOSITION

Macro issues aside, the petrochemical industry in Qatar is still at an emerging phase as the country has for years been focused on building its world class LNG industry and the capacity and growth rates are yet to catch up with other major players in the Gulf. Linde Engineering's Vezvaei believes the opportunities within the petrochemical industry in Qatar are four-fold: "First and foremost the wealth of competitive gas as a feedstock, which is tight elsewhere, offers the ability to have options and alternatives. Also, the efficiency enhancement in better utilizing the existing feedstock, through smart revamps and retrofits will boost the return on existing assets. Thirdly, Qatar benefits from the diversification of feedstock not only to gain flexibility through market cycles, but also to optimize the derivatives and the revenue streams. Lastly, Qatar's commitment to sustainability has been well portrayed through the National Qatar Vision 2030. Implementation of some of the sustainability measures in the downstream industry, like CO2 capture and reutilization, would also unlock some new potentials."

Variable costs, on the other hand, are decisive for a chemical company's ongoing operations. When considering a company's cost position, a very important factor is the sourcing of raw materials; being able to produce near the source can drive costs down significantly. "Qatar, in that respect," argues Evonik's Ehret, "can offer one of the best platforms. In addition, the ease of doing business in Qatar is rather good, with reliable business partners, who are often educated outside of the country and have worked in the United States or Europe, diminishing the intercultural differences. There is also a strong financial structure, tested by European and international companies, as well as a variety of companies that offer attractive financing options."

Gasal likewise remains positive as Al-Muhannadi explained: "The industry's fundamentals are very strong. Qatar is a small country but with strong leadership that has had the foresight and the manpower to develop the country. As a result, [the industrial areas] Mesaieed and Ras Laffan have state-of the art infrastructure, well operated and are on a par with industrial basins you find in mature economies such as Europe and America."

CONCLUSION

The price of oil is one of the most important factors to consider when evaluating investments in Qatar and the GCC. Commenting on QVC's current downstream operations, Hamad Rashed Al-Nuaimi, CEO, said: "The low oil and gas prices have mixed effects. On one hand, the price of ethylene, which has dipped as a result of the fallen oil and gas prices, constitutes a large portion of the variable cost to QVC, such that lower prices reduce our input costs significantly. There is also a slight benefit on the freight costs, as the fuel costs for ships has dropped…Low prices, however, can be harmful if they remain low for too long. A prolonged drop in oil and gas prices will increase the amount of vinyl chloride monomer in the market and that can depress prices for this product. But looking at the larger macroeconomic picture, low oil and gas prices affect an array of manufacturers, which ultimately affects QVC as its intermediate products are in less demand."

The GCC region is slowly moving into the next phase of product development—specialty and intermediate chemicals instead of just commodities. The number of products produced by the region has almost doubled between 2005 and 2013, with total production capacity reaching 147million mt/y. Qatar will be no exception to this trend. Once oil prices recover, Qatar will once again turn its eyes to its long held desires to further develop its downstream capacity. For global specialties companies, like Evonik, they can hardly wait: "Evonik is closely watching how this decision-making process unfolds and remains behind Qatar every step of the way, ready to come in with its technological expertise and potentially establish a manufacturing presence as well. Evonik is convinced that the Qatari cost-position would be one of the best in the region," said Ehret.