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Choppy waters for global LNG

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Introduction

Tankers re-routing on last-minute commands, sanctions being imposed and withdrawn, governments threatening to intervene in markets — these present choppy waters for the global LNG business. And at the same time, there are triumphs: top CEOs flying in to sign deals, world-record production vessels setting sail, new markets opening up.

Market oversupply is a familiar cyclical phenomenon, but the LNG business is also changing fundamentally. Recent events highlight some of the key trends and concerns we have highlighted in this series of reports; and shocks on the geopolitical and market fronts continue, testing traditional business models.

Geopolitics: Predictable shocks

As the LNG business expands and moves into new markets, participants have to manage new and unanticipated risks. The recent embargo on Qatar by several of its Arab neighbors has not interrupted shipments, but it has made customers think carefully about the importance of its LNG industry — 30 percent of global supply, although set to shrink as Australian and US projects start up.

Qatar has moved fast, though, to reinforce its position. After ending its self-imposed moratorium on further development of its giant North Field in April, in early July it doubled the size of its planned new project to 23 million tonnes per year of LNG, which would take its total exports to 100 Mtpa within 5 to 7 years. Some have seen this as a response to its political challenges; others as a warning to high-cost LNG competitors hoping to enter the market in the early 2020s.

In July, neighboring Iran signed with Total and CNPC for further development of South Pars, the extension of North Field into its waters. The initial phase of their project will go to the domestic market, but future phases could feed an LNG plant that Total has long pursued. This deal, the first with a major oil company following the lifting of international sanctions at the start of 2016, could open more investment into the country.

Geopolitical concerns also open up new markets. LNG now gives a swathe of central and Eastern Europe an alternative to Russian pipeline supplies, though a lack of import infrastructure remains an impediment for many countries. US energy secretary Rick Perry has said that LNG would be the major driver of US 'energy dominance'.

Local politics can also intervene. Western Canadian projects have struggled with approval, meeting high environmental expectations and greenfield development issues including each carrying new pipeline infrastructure in their cost structure, in competing with the rush of brownfield projects developed on the Gulf of Mexico coast. The lengthy approval processes combined with heightened competitiveness and reduced affordability dynamics have relegated Canadian projects to deferred or abandoned FID. With the latest casualty the Petronas led PNW LNG, none of Canadian potential projects proceeding to definitive FID, the specter is raised that a large part of the giant shale resources of British Columbia and Alberta could remain stranded. In eastern Australia, amid a supply crunch, the federal government has stepped in with new powers to restrict LNG exports if local gas prices rise too much.

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Threats to supply are, in general, a familiar type of challenge. Political uncertainty continues to gear up with the added weight of new threats to demand. Even in established markets, such as Japan and South Korea, decisions on nuclear power can skew

LNG demand up or down. Unlike traditional consumers — East Asia and Western Europe — many new buyers are less creditworthy and may be more vulnerable to financial and political crises. Some LNG markets grow and then diminish, like Egypt whose demand is set to fall after the development of the giant Zohr find and other new fields.

New supply: Two waves and a lull

The supply wave triggered in previous years of high prices continues to wash on. Alongside the more traditional Western Australia projects, US shale-to-LNG plants are bringing transformation: not only massive volumes of supply, estimated at 66 Mtpa by 2019, but a new business model, flexibility and pricing approach. Nations as diverse as Poland and the UAE have turned to flexible US LNG as a solution for security-of-supply concerns. With the expanded Panama Canal, the US Gulf plays both east and west.

Russia, too, looks both east and west with its gas strategy. Russia's Yamal LNG is set to be operational by next year. It aims to be competitive with both pipeline gas and LNG, develop its 'Northern Sea Route' through the Arctic, and work with China, India and Japan to give it a new gas outlet in east and south Asia.

Alongside the historic Gazprom monopoly, new players, notably Rosneft and Novatek, are entering the LNG game. Saudi Arabia recently expressed interest in joining Novatek's Arctic LNG-2 project, a first for state-owned giant Aramco, itself in the process of a historic IPO. But continuing US and European sanctions, and high LNG development costs, challenge some of Russia's energy ventures.

We highlighted floating liquefaction plants as a potentially transformative technology back in 2014.[1] Petronas's PFLNG Satu loaded its first cargo in April — the world's first operational floating LNG plant — and Shell's Prelude sailed from South Korea at the end of June for its destination off of Western Australia. Golar's vessel in Cameroon expects to start operations in September.

Though some projects have been cancelled, at least two are still making progress: ENI's Coral, off of Mozambique, took final investment decision in June, and Ophir's Fortuna in Equatorial Guinea is moving ahead. FLNG continues to offer a solution for non-traditional project developers and smaller or remote resources.

The queue of new projects appears to thin out after 2020, paving the way for an expected tightening of the market. Qatar's new plant is targeting the anticipated window around 2023, which it may contest with further US, Canadian, East African projects, Australian brownfield expansions and others.

Markets in transition

LNG markets are also continuing their evolution: from resource-led to customer-led. Indian customers have attempted to take advantage of a buyer's market to renegotiate their contracts with Qatar and US sellers. Japan is reviewing destination clauses with a view to their removal, potentially freeing up over-contracted LNG supplies into the broader market. In March, Japan's JERA, South Korea's Kogas and China's CNOOC formed an alliance to press for more flexible contracts.[2] In April, JERA signed a cooperation agreement with Dubai's monopoly importer DUSUP.[3]

New markets, typically smaller and less creditworthy, but offering scope for faster growth, are springing up, with Uruguay, Colombia, Benin and Ghana working on starting FSRUs over the next 2 years, and Morocco and Panama also considering imports. Qatar is keeping up with this trend, announcing on 19 July a joint venture with Hoegh to develop floating LNG import terminals. In June, it had signed for Bangladesh's first LNG import project.

The International Energy Agency, which in 2011 predicted a 'golden age of gas', now sees a more mixed picture. There is still a prospect of a 'golden age', in a thrust to fuel developing-world megacities cleanly, in China, perhaps in India and much of Africa, and in industrial gas which is emerging as a leader of demand growth ahead of the previously expected driver, power generation.

LNG market developers can flourish with smaller, more heterogeneous new buyers by building a diversified, robust customer portfolio. Demand can be anchored by encouraging new gas-fired power plants and industries, understanding local demand drivers and dynamics, and payment assured by deals with international financial institutions such as the World Bank or other credit enhancement measures.

> Companies need to change their business models: from resource-led to customer-led.

[1] *Floating LNG: Revolution and evolution for the global industry?* KPMG International. November 2014.

[2] http://uk.reuters.com/article/asia-lng-markets-idUKL3N1H02FJ

[3] http://www.reuters.com/article/lng-japan-dubai-idUSL3N1HE47P

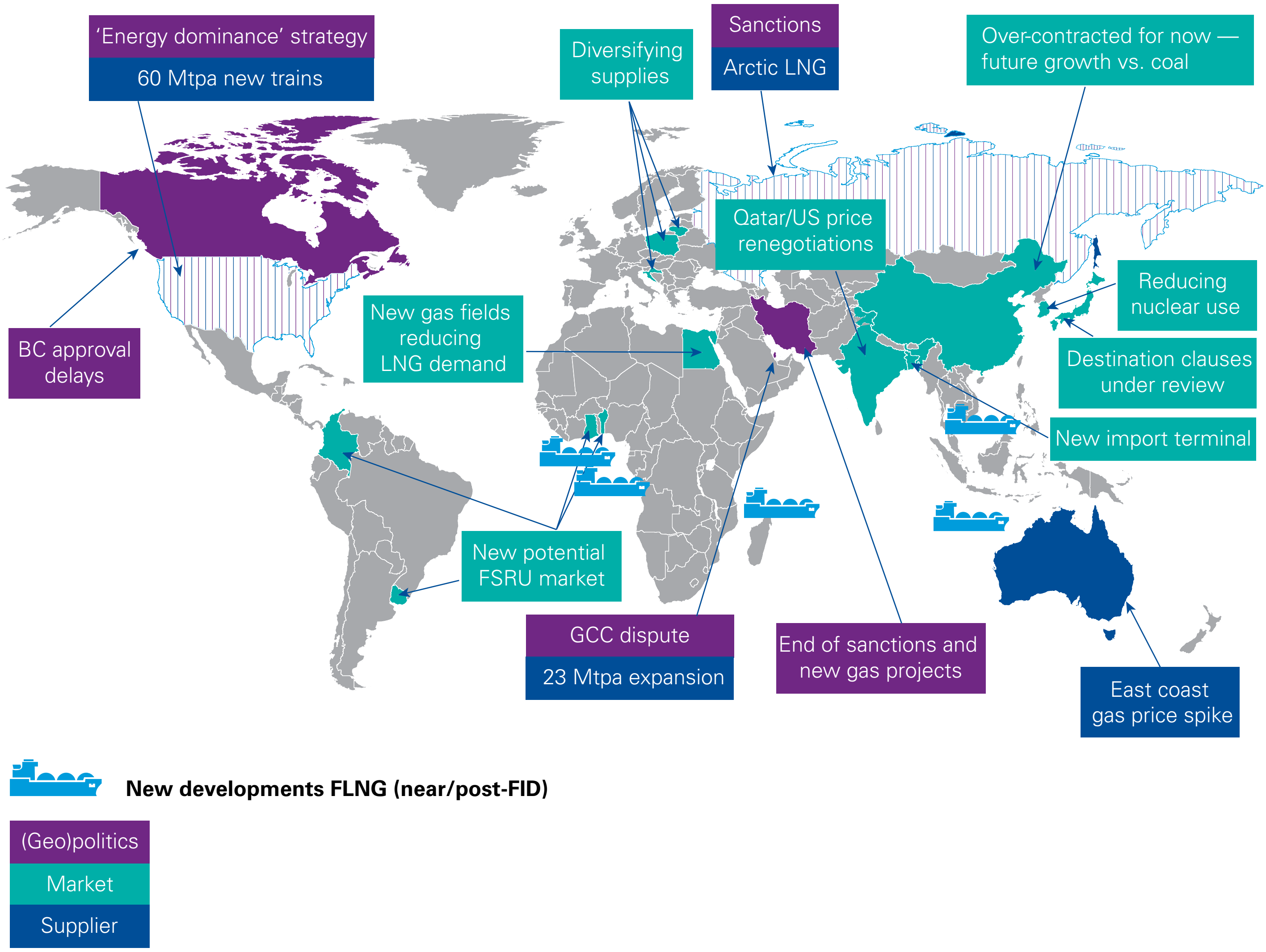
LNG companies adapt

The new LNG world demands a diversity of approaches and business models. Cost-competitiveness is more crucial than ever, as expiring Qatari contracts become available at cash sustainment cost and QP promises to bring new supply. Diverse portfolios — whether as seller, trader or buyer — are needed to manage the risks of price and geopolitics. Companies will want to staff up their political risk and economic forecasting departments, as they venture beyond traditional LNG markets.

And from the old model of arbitraging cheap stranded gas, the new world requires participants to be market-finders and market-makers. That means novel geographies, emerging segments of customer demand such as shipping and clean industrial feedstock, and being competitive to displace coal and complement variable renewable energy in growing, crowded and polluted new metropolises.

The best companies are seizing opportunities proactively. These trends show LNG players — both traditional giants, and new entrants from state concerns to small entrepreneurial firms — not just adapting to a changing reality, but creating their future.

Highlights of some major recent LNG market/geopolitical developments



Source: Qamar Energy research, 2017

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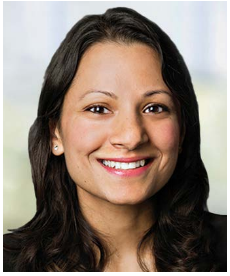

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