



# Who goes there: friend or foe?

## Gas, Russia and the Middle East

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Russia and the Middle East both supply gas to Europe and to Asia. In theory that makes them competitors. They are also both affected by Chinese demand and North American supply and, in theory, that gives them a common cause. Should Russia and the Middle East be enemies or friends?



### The effects of growing gas-to-gas competition

The European and Asian gas markets are in flux. Gas-to-gas competition is rapidly growing in importance, with lower-priced spot supplies increasingly undermining the higher-priced long-term supply contracts that have traditionally dominated the market. As a result, Russia and the Middle East are being forced to adapt to the more liberalized practices of European and Asian markets. On the basis that “a problem shared is a problem halved” there may be merit in Russia and the Middle East co-operating to supply these markets in a way that they have not achieved before.

Long-term, oil-indexed contracts are under serious scrutiny as overall demand for gas decreases in Europe, while new, non-Russian, non-Middle Eastern sources of supply increase. Shale gas in the U.S. has freed up Liquefied Natural Gas (LNG) – originally designed for American ports – to address European and Asian spot markets. As a result, spot prices are now lower than the oil-indexed prices of Russian and Middle Eastern contracts, with the result that gas from these sources has become among the most expensive in the world. The extent of this shift is illustrated by France, a champion of nuclear power, increasing its imports to over 16 billion cubic metres (bcm) despite flat domestic consumption. Another example of this shift is in the U.K. where the spot prices at the virtual trading hub there, the National Balancing Point (NBP), are increasingly recognized in the market as independent benchmarks.

To achieve this shift in 2011 the NBP attracted 22 bcm of alternative gas supplies, 85 percent of which was sourced from Qatar, bringing Qatar’s total share of the European gas market to over 10 percent. With Belgium and the Netherlands physically connected to the U.K. where the NBP lies, European spot price influence is spreading eastwards towards the German border, where Russian gas prices have been fixed through long-term contracts. As a result, the big Russo-German pipelines, which were necessarily financed by long-term contracts and have formed the backbone of European supply over the past 50 years, are operating at less than full capacity.

Key participants in the European gas market have acted accordingly. Statoil signed a GBP13 billion NBP-anchored supply agreement with the U.K.’s Centrica, which in turn signed a 3.26 bcm per year deal with Qatar. Spain’s Gas Natural has contracted to receive LNG based on U.S. Henry Hub prices from 2016-17 onwards, following BG Group. As a result, in 2011, almost half of Europe’s gas contracts were concluded outside long-term contracts.

### GECF – a GASPEC?

What would happen to liquidity if Middle Eastern sources were to not supply Europe with current volumes? A more coordinated supply approach to Europe would certainly benefit Russia and this is where a Russian/Middle Eastern axis might play out. Russia is a founding member, and currently holds the top position,

in the Gas Exporting Countries Forum (GECF) comprising some of the world's leading natural gas producers and exporters. It is not a cartel in the same sense as OPEC (Organization of Petroleum Exporting Countries) in that it does not control marginal production in an effort to influence prices. There are structural differences in global natural gas and global oil that make this type of control difficult. Nevertheless, the GECF provides a venue for its members to discuss topics of interest such as production projects, exports, etc. Its members – which include Algeria, Bolivia, Egypt, Equatorial Guinea, Iran, Libya, Nigeria, Qatar, Russia, Trinidad and Tobago, and Venezuela – control 36 percent of world production and 47 percent of global trade. Kazakhstan, the Netherlands and Norway have observer status at the GECF. Major natural gas producers that are not affiliated with the GECF include Australia, Azerbaijan, Canada, Indonesia, Malaysia, Oman, Turkmenistan, the United States (the world's leading natural gas producer) and the United Arab Emirates.

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At the first GECF summit held in Doha in 2011, Russia indicated its keenness for Qatar to focus on Asia and to market LNG under long-term oil-indexed contracts rather than to European spot markets. Qatar however, emphasized its contractual commitments to Europe, particularly in the face of Russia's desire to continue to supply Asian markets. Yet a number of commentators

have indicated that the supply of LNG to Asia under longer-term contracts would be more profitable for Qatar than the supply to European markets on a spot basis in the short- to medium-term. Qatar is currently selling around 36 bcm a year of gas to Asia. Netbacks on Qatar's spot LNG sales into Asian markets are around USD14 per million British Thermal Units (mmbtu), around twice the figure achieved in the U.K. and Northwest Europe, where benchmarks are currently trading at about USD 8/mmbtu.

However the demand situation in Asia is not straightforward enough for Qatar simply to focus its efforts there. Asian demand would need to use up to 23 bcm of diverted Qatari LNG from European markets. On the face of it, this looks possible. The disaster at Fukushima has increased Japanese demand by some 11 percent. South Korea has been a core demand market for Qatar for many years. India's geographical location means that LNG will be its major source of gas supplies, whilst the maturing gas provinces of Malaysia and Indonesia are importing increasing quantities of gas these days. But the swing demand market in Asia is China, where demand is expected to increase by over 5 percent per annum to 2030. Just because China needs gas however, does not mean that this gas will necessarily come from Qatar, or from Russia.

### **And then there's China**

China has started to diversify supplies effectively by signing numerous memoranda of understanding with major suppliers for prospective supplies whilst securing supplies from Central Asia. Turkmenistan is an important player, with 30 bcm of Turkmen gas expected to flow into the Chinese mainland by 2015 (China produced 97 bcm in 2010 and consumed 109 bcm, but its import needs are set to grow sharply). Additional agreements towards 65 bcm are in place with Uzbekistan and Kazakhstan. China-Turkmen prices have fallen to around USD 6-7/mmbtu and in addition, burgeoning Australian LNG production (forecast to be the largest in the world

by 2018) has proven attractive to Chinese buyers. It is in China's interest to ration its Qatar LNG imports at current prices and to allow gas-to-gas competition to develop further in Europe, as that will help it in negotiating lower prices with Russia for larger quantities (up to 60 bcm) in the short- to medium-term and with Central Asian suppliers in the medium- to long-term. It may well be in China's interest to retain Qatar as a marginal rather than a base-load supplier in order to force down the price of pipeline gas. Russia has so far been unable to replicate, in China, the 50 year-old success that it enjoyed in delivering pipeline gas to Germany and to the rest of Europe. In the meantime, China has secured a portfolio of alternative supplies and has earmarked future domestic shale production of 30 bcm per year.

Given these challenging conditions for both Russia and Qatar, one option might be for Russia to start limiting gas sales into Asian markets, ensuring that China starts to use Qatar supplies as base-load supply. Greater progress than to date would need to be made in offering Qatar major Russian upstream swap agreements and downstream stakes possible in Europe. Any significant Qatari shift towards Asia will see Russia's spot market pressures eased in Europe with few other producers looking likely to substitute Qatar's supply.

#### **Shale – evolution or revolution?**

The second GECF summit in Moscow in 2013 took place against the background of significant shale gas production in the U.S., increasing competition for customers and uncertainty over future gas demand, prompting some analysts to call current market conditions the "Dark age of gas." Leonid Bokhanovsky, the Secretary General of GECF, however changed "Dark" into an acronym: Development, Affordability, Reliability and Known (Energy), all attributes of natural gas. He did acknowledge that the "current challenging areas for all gas-exporting countries and other energy participants include vulnerability in the security of demand, energy policies in place – mainly in consumer countries and particularly within Europe – and the European Union plans to diversify its energy supply and to develop local energy resources."

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As far as shale gas is concerned, GECF remains of the view – as does the International Energy Agency, which represents the OECD (Organization for Economic Co-operation and Development) demand-side countries – that the shale gas "revolution" has not yet occurred. The ability to replicate the very favorable conditions under which shale has been developed in North America, elsewhere in the world and especially in Europe (where there are legal constraints for possible development of resources) is largely unproven, except in the one area critical to both Qatar and Russia, namely China. A key assumption underlying the North American shale "threat" to Qatar and Russia is that North America will export unfettered volumes of LNG to both European and Asian markets. However, there are powerful lobbies – economically, in the form of users of gas for power generation and industrial feedstock – and environmentally, in the form of opponents to hydraulic fracturing, who may curb such exports. This opposition echoes the many plans a decade ago for LNG regasification plants for the United States which never came to fruition.

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Nevertheless, shale gas has already forced Qatar and Russia at least to consider, if not implement, alternative export strategies. North America is no longer (at least for now) a significant export market for Qatar whilst Europe and Asia (Qatar and Russia's target markets) could be significant import destinations for North American shale-produced LNG. As far as fuel sources for power generation are concerned, cheap shale gas is displacing coal to the extent that coal is now more attractive for power generation in other parts of the world.

### **The Middle East is not just Qatar**

Important as Qatar is, there are other major Middle Eastern countries that we should not forget: Algeria, Oman, Yemen, Egypt and the U.A.E. together produced 54 bcm of LNG in 2012. Algeria and Egypt are particularly interesting, given their proximity to European markets and to Russian alternative supply into Europe.

Algeria may hold shale gas resources much greater than its conventional reserves, which are already substantial. In March 2013 Algeria passed a new set of amendments to its hydrocarbon law to address shale gas in the country.

Depending on the development of its unconventional natural gas resources and its conventional resources, Algeria could become a more significant natural gas producer and exporter. However, a difficult business environment may continue to limit its potential. In 2011, Algeria produced 79 bcm and exported 51 bcm, with 45 bcm going to the E.U. Although Algeria is focusing on preserving its resource base and not expanding production too quickly, with domestic consumption possibly outstripping exports within the next decade, Algeria continues to expand its connections to Europe. In 2011, the Medgaz pipeline from Algeria to Spain was opened with an initial capacity of approximately 8 bcm per year. Despite this new addition, Algerian exports to Spain do not have much direct impact on the rest of Europe, as the interconnection between Spain and France is limited. In addition to Medgaz, Algeria exports natural gas to Europe via the 12 bcm Maghreb-Europe pipeline to Spain and the 6 bcm Trans-Mediterranean pipeline to Italy. Algeria has also announced plans to expand its LNG export capacity.

Since 2005, demand for natural gas in Egypt has been on the rise, increasing almost 57 percent over the time period. Although production has grown as well, the subsidy-driven demand has hindered the government from offering attractive terms for international companies to continue developing Egypt's resources. Additionally, much of Egypt's remaining natural gas is in difficult-to-access, high-cost areas, which contributes to the lack of interest by many international natural gas companies. That said, British Petroleum signed a deal in 2010 that was substantially higher than previous contract terms. Since the resignation of Hosni Mubarak, Egypt's natural gas infrastructure in the Sinai Peninsula has been attacked many times, disrupting gas shipments via two separate pipelines to Israel and Jordan. Egyptian exports to the E.U., which are solely in the form of LNG, dropped almost 12 percent in 2011, after dropping almost 35 percent in 2010. The Arab Gas Pipeline from Egypt to Jordan, Lebanon and Syria has been planned to

extend to Turkey in order to move Egyptian natural gas to Europe, but given the issues surrounding Egypt's natural gas sector this is highly doubtful. Production in 2010 fell for the first time in over a decade, but stabilized in 2011. With domestic consumption likely to continue increasing and production probably declining, exports are not likely to increase for some time. In part to meet its export commitments, Egypt announced in December 2012 that it would begin importing LNG, possibly as early as 2013. Depending on the orientation of a new government (i.e. whether it promotes Western investment in Egypt's energy sector) and whether the government addresses its natural gas subsidies, this deterioration of Egypt's natural gas sector could be reversed.

It can be concluded that at least in the medium-term, Algeria and Egypt are unlikely to exert significant influence in Europe in terms of increased supplies.

#### **The Middle East and Russia: not close enough to be friends or distant enough to be enemies**

The gas map of the world is too complicated, fragmented and dynamic to enable the forging of a strong partnership between Russia and the Middle East. The United States and China also have their own divergent agendas for gas and these are affecting the global gas supply/demand balance. The countries of the E.U. are caught in the middle and, due to their large number, differing market conditions and geographies, have never been (and are unlikely to be) able to act as one single economic bloc with the focused market power to dictate terms to major gas suppliers.

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Yet it would be foolish for Russia and the Middle East to regard themselves as enemies in the global gas market. They have many complementary aspects to their gas businesses. One is focused on the delivery of pipeline gas, while the other focuses on LNG. Both cannot ignore the supply issues that the U.S. poses, or the demand conundrum of China. We can therefore conclude that the relationship between these two key gas-producing regions will ebb and flow according to the supply, demand and prices of each gas year. And, as we know, no gas year is ever the same.

by **Kenneth McKellar**, Middle East Energy  
& Resources Leader, Deloitte Middle East