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The EU-Russia Energy Game — Who's in the Lead?

The ongoing crisis in Ukraine may well provoke the European Union to lower its dependence on Russian energy supplies. Will that then sound alarm bells in revenue-dependent Moscow? Not for the next 2-3 years, writes Alexander Gusev.

By Alexander Gusev for ISN

The current political crisis in Ukraine might have provided us with what could be considered the first bona fide head-on geopolitical clash between Russia and the European Union (EU). Prior to this, Moscow and Brussels have traditionally been keen to emphasize that their relations were based on partnership, most notably during the 2008 Georgia-Russia conflict. So what's changed?

The View from Brussels

Part of the answer lies in the energy sphere. Ukraine's gas transportation system is of geopolitical and geostrategic significance for both sides. For the EU, Ukraine offers an opportunity to store gas reserves and to secure the transportation of supplies. Ukraine possesses the largest underground gas storage capabilities in Europe. This allows it to not only cover the sharp seasonal increase in domestic gas consumption, but also to secure additional volumes in case of disruptions to gas supplies.

In addition, the geographical location of Ukraine makes it a potentially important link between the markets of eastern and western Europe. Thus, the establishment in Ukraine of an eastern gas hub might have a positive effect on pricing mechanisms in the EU and its gas market as a whole. Finally, Ukraine possesses extensive shale gas reserves (3.6 trillion cm). If ever produced, shale gas might not only result in Ukraine becoming energy self-sufficient but may also provide Kiev with a useful source of income in the shape of imports.

However, heavily investing in Ukraine's energy infrastructure also carries risks that transcend the current crisis. Beyond the need for considerable financial resources, the development of an energy hub is not possible without a real liberalization of the country's gas market. That's going to require set of reforms that overhaul the state-owned gas company Naftogaz's control of prices.

And from Moscow

For Moscow, rapprochement with a Ukraine that once again looks east also brings opportunities and risks. Closer ties between Moscow and Kiev may increase Russia's foothold over Ukraine's energy

assets and eventually its shale gas projects. Prior to the recent crisis, Moscow has tried to boost its ties with Kiev with the promise of a $15 billion loan and reduced gas prices. In addition to more favorable terms and conditions, Russia is also unlikely to bind Ukraine to EU-style integration policies . However, the ongoing political and economic turmoil inside Ukraine also suggests that there is a real chance that such loans will not be repaid – at least for the foreseeable future.

So, given the escalation of the current situation in Ukraine, it may result in significant energy security risks in terms of gas supply for the EU and unpaid bills for Russia. Indeed, the gold and exchange currency reserves of Ukraine since the beginning of 2014 have decreased by 26.5%. Moreover, as Naftogaz has not paid Gazprom for recent gas supplies (accruing $1.5 billion worth of debt in the process) Moscow has now declared that Kiev will lose its price reduction for gas from 1st April. Accordingly, there is a risk that Gazprom will stop gas supplies to Ukraine because of unpaid debts and Kiev will be forced to compensate the losses either through transit volumes or through gas in underground storage. Since the beginning of the conflict, Ukraine has increased its use of gas in storage from 55 million cubic meters to 100 million cubic meters per day. In doing so, the country could do without Russian gas 6-7 months: beyond that is an altogether different story.

The threat of a full-scale military operation in Ukraine will inevitably have considerable consequences for the Russian economy. Western investors are already beginning to sell Russian assets and the Moscow stock exchange opened with a fall in the first week of March. The situation may deteriorate as and when economic sanctions are imposed by the international community. In 2013, Russian exports to the EU and APEC accounted for 70% of total Russian exports ($368 billion). Thus, if foreign supplies fall sharply, Russia could soon find itself facing a recession similar to the one that occurred as a result of the economic crisis of 2008-2009.

Europe's bid to end energy dependence on Russia

Brussels' confrontation with Russia over Ukraine may also reinforce the EU's general determination to reduce its dependence upon Russian energy supplies. Currently, the EU is trying to diversify its supply routes and sources and invest in new extraction technologies. These include:

Shale gas: Europe has significant shale gas reserves and, despite numerous challenges, this year might prove decisive for its production. Several companies have developed new technologies for so-called "green fracking" to mitigate ecological risks. These include introduction of synthetic gellants into the fracking 'cocktail' and the use of waste water for extraction. In addition, some of Europe's biggest consumers of natural resources are starting a new round of licensing for the exploitation of shale gas. It is hoped that once commercial production of shale gas takes off in one European country, others will follow. Crucially, estimates suggest that the cost of shale gas in Europe will eventually fall somewhere between 8 and 10 $/MBTU - cheaper than Russian gas supplies.

Renewables: The EU's consumption of renewable energy increased from 9.2% in 2007 to 13% in 2011. And while renewable-based electricity is at present more expensive than power based on fossil fuels, costs could be driven down by new technologies. For example, Germany is heavily involved in the development of a new generation of batteries for grids and vehicles. Once renewable-based electricity can be stored in considerable quantities, it will make related technologies like power-to-liquid and power-to-gas increasingly competitive. These technologies could, in turn, connect the electricity market with the fuel market.

Spot market: Historically, Russia has exported gas to Europe based on long-term contracts with oil-indexation. But in the past several years the European gas market has experienced significant changes due to the availability of additional volumes of gas. This has resulted in a gradual change to pricing models from oil-indexation to spot trading and increased pressure on traditional suppliers such

as Gazprom. As a consequence, between 2010 and 2012 Gazprom had to provide reductions in contractual volumes and prices for a number of companies. Further growth in spot trading across Europe - and an increased supply of LNG on the world market - may force Gazprom to make further concessions to European companies or even to change the pricing model in its contracts.

Diversification of supply: To decrease its dependence on Russia, Europe continues in its efforts to diversify its gas supplies and decrease gas consumption. This does not favor Russia over the short-to-medium term for several reasons. First, European gas demand has stagnated for the past several years because the high prices of gas do not favor gas usage in the power sector. Second, the share of LNG in gas supplies to Europe has doubled for the past 10 years, reaching 20%. This resulted in a number of customers buying LNG instead of pipeline gas. Finally, expected additional volumes of LNG exports from the US, scheduled for 2016, as well as future Azerbaijan's exports from the Shah Deniz field (through the TANAP and then TAP pipelines) are expected to Russian gas supplies to Europe under pressure.

However, things might be a little different over the short-term (2-3 years) given that the EU's own production levels are falling faster than previously anticipated. At the beginning of 2014 the Netherlands declared it will cut gas production at Groningen, the largest gas field in Western Europe, from a planned 49 bcm to 40 bcm by 2016. In addition, most of LNG plants currently under development are expected to come online between 2016 and 2018. This means that over the next few years the EU may in fact increase its gas imports from traditional suppliers such as Russia.

An Uncertain Future

Both Russia and the EU are likely to be reminded over the coming weeks and months that their future economic and political relations with Ukraine may not only yield significant geopolitical benefits but also serious risks. Ukraine's economy is in a lamentable state and is likely to deteriorate further given the current standoff with Russia. Moreover, Russia's prior commitment of significant financial and political resources to Ukraine might have underestimated current trends on the EU energy market. The EU is continuing to seek new gas supply routes and investing in new technology to reduce its energy dependency on Russia. This poses a serious risk to a Russian economy that relies heavily upon oil and gas revenues and that is now under threat of economic sanctions.

And while Moscow might have reasons to be cautiously optimistic over the short-term given that exports of Russian gas to the EU might increase, after that the development of alternative fuel supplies and the growth of spot trade might compromise the economic feasibility of gas projects in Eastern Siberia and the Far East. Irrespective of developments in Ukraine, Russia has a very limited window of opportunity to adapt its strategy and find an answer to changing realities and markets.

For additional reading on this topic please see:

The Wedge between Russia and China
Challenges and Opportunities of a Sustainable Energy Supply in a United Germany
Unconventional Oil and Gas: Global Consequences

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