Westphal, Kirsten

Research Report

Russian energy supplies to Europe: The Crimea crisis. Mutual dependency, lasting collateral damage and strategic alternatives for the European Union

SWP Comments, No. 16/2014

Provided in Cooperation with:
Stiftung Wissenschaft und Politik (SWP), German Institute for International and Security Affairs, Berlin

Suggested Citation: Westphal, Kirsten (2014) : Russian energy supplies to Europe: The Crimea crisis. Mutual dependency, lasting collateral damage and strategic alternatives for the European Union, SWP Comments, No. 16/2014, Stiftung Wissenschaft und Politik (SWP), Berlin

This Version is available at:
https://hdl.handle.net/10419/256284

SWP Comments

Stiftung
Wissenschaft und
Politik

German Institute
for International and
Security Affairs

Russian Energy Supplies to Europe

The Crimea Crisis: Mutual Dependency, Lasting Collateral Damage and Strategic Alternatives for the European Union

Kirsten Westphal

At least in the medium term Russia will remain the backbone of Europe's energy supply. While the European Union possesses enough storage capacity to bridge a temporary interruption of gas supplies routed through Ukraine, it has precious few other immediate alternatives. In the medium to long term, however, Europe has diversification options that would also expand its foreign policy leeway. Overall, strong reciprocal dependencies and economic rationality should mitigate against allowing the political conflict to spread into economic and energy relations. Otherwise both sides will suffer massive economic harm.

There is great concern that the Crimea annexation, looming military escalation and continuing destabilisation could interfere with gas supplies to and through Ukraine. Also that the escalating spiral of sanctions and retaliation between Russia and the West could spread to affect the energy trade. If economic rationality prevailed on both sides, neither Russia not the European Union would have any interest in endangering energy relations. Today, however, political interests diametrically oppose vital economic interests. What does that mean for the reliability of Russian energy supplies, so widely touted in Germany? In cold objective terms, Russia has exploited its energy exports in pursuit of its political interests. Nowhere can that be better observed than in Ukraine.

Gas Dispute Reloaded?

The gas conflict between Moscow and Kiev follows a familiar pattern. To predict the spiral of escalation one need only recapitulate the Russian-Ukrainian gas crises of 2006 and 2009. In 2013 Ukraine imported 25.8 billion cubic metres from Russia towards a total annual consumption of 50.3 billion cubic metres. The delivery contract of 2009, which is valid until 2019, is unfavourable for Kiev because of its comparatively high prices and sweeping minimum take-or-pay clauses, while the transit agreement concluded at the same time grants Gazprom great flexibility. However, in 2010 and 2013 Moscow granted price and volume reductions in return for political concessions such as an extension of the lease on Russia's Crimean base for its Black Sea Fleet until

Dr. Kirsten Westphal is a Senior Associate in SWP's Global Issues Division

2042 and Kiev's rejection of the association agreement with the European Union.

(As of March 21) Moscow now demands settlement of debts amounting to almost $2 billion and reinstatement of the higher monopoly price ($406 instead of $268.50 per thousand cubic metres) as of April 2014. Russia has the contractual power to switch to payment in advance in the event of default, and to cut deliveries. It has already threatened to do so. In order to remove that pretext for delivery cuts, the West has an interest in Kiev honouring its debts. The gas contract gives Moscow a number of levers to maintain pressure on Ukraine, with gas supplies offering a means of further destabilisation. Moreover, now that Ukraine has lost its bargaining chip of the long-term lease on the naval base at Sevastopol as the quid pro quo for gas deliveries, Russian newspapers are already reporting that gas prices could rise as high as $480 per thousand cubic metres.

If the European Union wishes to help the almost bankrupt Ukraine, it will have to engage in resolving the country's enormous energy problems – but will also have to demand reforms. It is foreseeable that Kiev will have to inflict higher energy prices on the population, and that in a precarious socio-economic situation.

In the short term the European Union has limited options for supplying Ukraine with gas via alternative routes. Fundamentally reverse flow modifications could be installed. The German company RWE could play a key role here. In 2013 2.1 billion cubic metres of gas were supplied by reversing the flow from Poland and Hungary to Ukraine. But it would take until winter 2014/15 before a physical reverse flow option for 10 billion cubic metres/year could come on stream at the Slovak-Ukrainian border, and even then it would still be Russian gas being diverted.

The largest transport corridor for Russian gas to Europe runs through Ukraine. According to the International Energy Agency, half of Russia's 160 billion cubic metres of natural gas exports pass through Ukraine to Europe. Germany and most western European states would be able to largely absorb an interruption on this corridor – for whatever reason – for about three months. Storage facilities everywhere are full after the mild winter. But the storage facilities would have to start being replenished from June at the latest, otherwise the shortage shifts threateningly to the next winter. Transport alternatives are offered by Nord Stream to Greifswald (capacity 55 billion cubic metres/year) capacity and the Yamal pipeline through Belarus to the Baltic states, Poland and Germany (capacity 33 billion cubic metres). And then there is Blue Stream from Russia to Turkey, with a capacity of 16 billion cubic metres. But even under this scenario, south-eastern Europe and Italy would suffer, because of their lack of diversion options.

Otherwise, the short-term substitution alternatives are very limited. This applies in particular to electricity generation, where coal is already increasingly used. While Europe does have terminals for importing liquefied natural gas (LNG), the global LNG spot market is small, at 5 billion cubic metres per month (indeed, this is less than the 6 billion cubic metres routed via Ukraine).

Russia's Energy Exports to the European Union

Russia is Europe's main energy supplier. About 30 percent of the Union's gas consumption and 35 percent of its oil imports come from Russia. Germany's import-dependency is even slightly higher, with 36 percent and almost 39 percent respectively. Recently EU gas imports from Russia rose again.

Of course Russia is also heavily dependent on financial revenues from its energy exports. Oil and gas make up almost 70 percent of Russian exports, with most going to Europe. Here there are differences between oil and gas. Natural gas contributes only about 5 percent of the state budget. Although Gazprom would suffer if it lost income from Europe and Ukraine, those revenues are no longer required to cross-subsidise

consumer prices in Russia. These days Gazprom turns a profit in the domestic market. And as the Russian market becomes more attractive, Gazprom now has to compete with Rosneft and Novatek. On the other hand revenues from the oil sector are much more important for the state budget, where they contribute almost 50 percent. It has been estimated that Russia needs an oil price of about $115 per barrel to secure a balanced budget in 2014. Nervousness and alarm play into the hands of (Russian) producers and traders.

But to what extent does economic rationality still determine the Kremlin's policies? Putin could also use economic sanctions as an excuse for poor economic data: economic growth was already slowing, capital outflows increasing, and industrial production stagnating. The dollar exchange rate for the rouble has plummeted to a historic low. The $87.3 billion in the state reserve fund give Russia a certain cushion.

There is a dense network of business links along the entire energy supply chain, especially between Russia and Germany. Russian companies like Gazprom and Rosneft have purchased important assets in the European market, where they are especially active in trading and distribution. In Germany Gazprom is currently in the process of taking over Wingas and its gas storage facilities, while the oligarch Friedman is buying RWE DEA. Rosneft owns stakes in refineries. This not only contradicts the spirit of "unbundling", but especially in the present situation demands intensified scrutiny and effective control. Conversely, Western firms also generally have central production interests in Russia.

Alternative Sources

A broad diversification to significantly reduce the Russian share could only be accomplished incrementally and would take years or even more than a decade, depending on the option. But to do so, Germany within the European Union would have to set the process in motion today, which would in itself send an important message to Moscow. Russia's world market shares are significant, with almost 13 percent for oil and over 17 percent for natural gas, and would not be substitutable. But all other major consumers either draw a large proportion of their supplies from the Persian Gulf, as is the case in Asia, or like the United States possess a domestic buffer against external energy crises and price spikes. In the event of supply cutbacks Europe would draw the short straw, because it receives so much of its oil and gas from Russia. In the case of oil Europe has strategic reserves, and because oil is largely used in the transport sector certain rationalisation options are conceivable. With gas the vulnerability is much greater. In Germany natural gas accounts for 22.5 percent of the primary energy mix. Almost 50 percent of Germany's domestic heat and 47 percent of industrial process energy are covered by gas, but currently only 10.5 percent of electricity generation. Nonetheless, there are system-relevant gas-fired power stations, especially in southern Germany. The figures speak for themselves: Germany's electricity and heat supply would be endangered.

In the medium term Europe is dependent on Russia's gas deliveries. Since the post-Fukushima demand boost in 2011 the supply situation for LNG in the European Union has tightened again. The gas market is more than 80 percent pipeline-bound, and the traditional suppliers Norway, Russia and Algeria continue to play a central role. However Algeria has reached its production plateau and demand is growing rapidly across North Africa. Norway has a certain leeway, but here too there are limits. Moreover, transport bottlenecks within the European network prevent Norwegian gas from reaching (southern) eastern Europe. The Netherlands recently set an annual production limit of 40 billion cubic metres for the Groningen gas field. There, as in Germany, domestic production is falling. As import dependency grows the chances of responding flexibly to crisis by increasing domestic production fall dramatically.

The LNG supply is certain to improve successively from 2016/17, when US and Australian LNG in particular come onto the market, and the relative supply shortage should be overcome by 2020. But this gas will be expensive: on the Asian spot market prices already reach $19 per MBtu, in Europe only $10,50. Much will thus depend on the development of demand in Asia, where Russia is also pushing into the East Asian market with LNG and oil exports. In Europe's neighbourhood there are gas fields in the eastern Mediterranean, the Caspian region and North Africa. With respect to the latter, a renewable energy and gas partnership would be an obvious option. Germany and the European Union also have possibilities to make the system more robust through energy saving, efficiency improvements and a broader energy mix. Ambitious climate goals should be leveraged to advance those objectives. Not least, the heat and transport sectors need to be included in the transformation of the energy system. In terms of security of supply the quickest and cheapest moves have already been made in the EU, in the wake of the 2009 gas crisis. Now it is time to push for construction of the LNG terminal at Wilhelmshaven and connecting LNG terminals to the German network. Strategic reserves, clear responsibilities and commercial stockpiling obligations, but also easier implementation of integrated strategic production and transport projects are the next steps to make. That would require a European consensus.

Conclusions

The relationship to Russia and the Russian-Ukrainian gas conflicts have always been a fulcrum and flashpoint of common foreign and energy policy. If the Ukraine/Crimea crisis drags on the consensus among EU member-states may prove difficult to uphold. But however the member-states may drift apart over these controversial questions, the EU Commission already plays a growing de facto role in the bilateral relationship with Russia. Thorny questions such as South Stream, the third internal market package and anti-trust proceedings against Gazprom are all matters for Brussels. Energy foreign policy is determined less by national capitals than is commonly perceived.

Two questions are central: What role should gas play in the European Union's future energy mix (also an important point for limiting greenhouse gas emissions)? And what stance should the European Union take towards Putin in a context where Moscow is a strategic partner for resolving international crises in other arenas, energy security can only be achieved collectively, and a decarbonisation partnership with Russia would serve the objective of reducing CO_2 emissions? Clean natural gas now has a whiff of geopolitics about it.

The Ukraine crisis will burden the negotiations over energy and climate goals for 2030. Collateral damage for the ambitious climate and renewable energy targets supported by Germany is becoming apparent, because the crisis can be instrumentalised by states that prefer, in view of the considerable costs involved for some member states, to set less ambitious goals. Yet, geopolitical risks remain a key factor for fossil energy supplies, keeping oil and gas prices at a high level and always threatening the danger of price shocks. To that extent it is misleading to focus on energy price differences with the United States, which has a largely autarchic gas market and increasing domestic oil production. As a net importer, the European Union cannot copy that model.

Diversification is needed, but will be costly and only affordable in European concert. Renewable energy and efficiency improvements are decisive components. Before dismissing them as nothing but expensive embellishments of climate policy, one should remember that one quarter of the European Union's coal imports come from Russia. Russia is also an important uranium supplier. Diversification would also reap dividends in terms of expanded foreign policy leeway.

SWP
Stiftung Wissenschaft und Politik
German Institute for International and Security Affairs

Ludwigkirchplatz 3–4
10719 Berlin
Telephone +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org
swp@swp-berlin.org

ISSN 1861-1761

Translation by Meredith Dale

(English version of SWP-Aktuell 11/2014)