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Global shale gas loop enfolds Asian consumers

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Recent advances in geological exploration and mining technologies show that there really is no global problem regarding energy resources, because proven reserves of many resources, instead of shrinking, are increasing sharply and are certain to continue to do so in the future. Energy crises that occur from time to time have little to do with energy availability. Instead, geopolitical competition imposes artificial limits on access to fossil fuels, and these have become a key factor in recent regional and global politics.

The most expensive gas in the world is in Europe (up to seven times more expensive than in the U.S.) and it has been used in the last decade, especially by Russia during winters when demand is larger and delivery is the most

crucial, as a significant political tool against central European countries that are entirely dependent on Russian gas. To increase the tool's effectiveness, a trans-Baltic double gas pipeline, the Nord Stream, has been built to bypass the Baltic states of Ukraine, Poland, Slovakia and others. Currently, limiting gas supplies to Ukraine means limiting supplies to countries further west, including Poland and Germany. The Nord Stream pipelines will buffer this disadvantage.

Therefore, Poland, with one of the largest deposits of shale gas in Europe, exploration of which began in earnest in 2006, may offer an important gas buffer for the region because this boosts the commitment to make this source of gas commercially viable.

If this can happen, the commercially unreasonable and extremely expensive Nord Stream gas would lose its political importance. At one time, the Polish shale gas deposits were estimated to total about 187.3 trillion cubic feet, but this has been downgraded recently to about 21.2 trillion cu. feet. The author's own estimate is that recoverable gas deposits total about 67.1 trillion cu. feet. With demand for gas in the region at less than 1.4 trillion cu. feet per year (half of which is domestic Polish demand), shale gas in Poland could serve as a sort of gas buffer for central European countries, which every winter experience the Russian gas squeeze.

Regardless of the accuracy of these estimates, this is still enough to decrease the political importance of Nord Stream gas. The new deposits of gas in Poland could make Nord Stream

the most expensive heap of scrap iron in the world, since it would make no economic sense to build a pipeline on the bottom of the Baltic while the land-based pipeline via Ukraine and Poland is several times cheaper and easier to maintain.

A gas drilling rig operates at the Grabowiec 6 field near the village of Lesniowice, southeast Poland. The rig, operated by U.S. giant Chevron, is the company's first shale gas well in Poland. (Reuters)

Asia connection

However, the role of shale gas in Poland could be larger than its regional or even its European role. Russian mineral resources and gas play a crucial role with a strong potential to increase. There is no doubt that Poland has significant potential to export shale gas starting from 2016. This gas could be a cheaper alterative source that ensures diversity of supply. This could therefore result decreased exports of Russian gas.

Consequently, Russia will have to export gas to other countries. This may not be easy, as all neighboring countries are gas and oil rich countries including China, which recently found on its territory the largest shale gas deposits in the world. The only countries that might purchase

Russian gas in significant amounts are Japan and perhaps South Korea. This, however, would force Russia to sell its gas much cheaper, due to higher Russian supply than demand from Japan, and delivery of liquefied natural gas to Japan from the Middle East and U.S. Moreover, selling gas to Japan would require from Russia new investments that would be much more expensive than the Nord Stream pipeline. Therefore, stopping shale gas exploitation in Europe is a strategic need for Russia.

The evidence? Bulgaria, apparently due to Russian political constraints and economic blackmail, banned exploration of its own shale gas deposits and even paid compensation to Chevron when it canceled a very promising license. This was due to Russian pressure and the total energy dependence of Bulgaria on Russia. France banned shale gas exploration last year, apparently due to environmental hazards, but few believe this is the real reason. In fact, shale gas would impact exports of French nuclear technology, and Poland is expected to buy nuclear plants from France.

There is growing concern that a similar ban could be passed by the German Bundestag, because the double-pipe Nord Stream offers a 1766.8 trillion cu. feet per year gas supply from Russia to Germany, with high potential to reexport, at a tidy profit, that gas to other countries, including Poland. Keep in mind that Poland pays Russia as much as $550 per 1,000 cu. meters (35,335.7 cu. feet), twice as much as Germany pays, and seven times more than the price of gas in the U.S.

Gas divide

So we see that shale gas has divided Europe. The most politically influential European lobby against shale gas is the nuclear power advocates, including new nuclear plants, of which the first is under construction in France. On the other hand, the nuclear disaster in Japan and Germany's recent decision to completely abandon nuclear power by 2022 have mobilized the nuclear power lobby to use environmental tools that are extensively used by the Russian lobby in Brussels and nongovernmental green organizations.

There is one more conclusion regarding the shale gas issue – it shows that there is no common European policy, solidarity and goals. It demonstrates the classic divide between German and French declaration and actions.

The EU's own shale gas deposits are estimated to total as much as 777.4 trillion cu. feet, but the only country determined to exploit it is Poland, and probably soon the U.K. will follow.

Summing up, on the one hand shale gas has mobilized Germany (due to Nord Stream), France (nuclear energy) and Russia (gas exports and strong-arming) against its exploitation in Europe. On the other hand, shale gas should mobilize Central European countries and Japan to exploit it. In this context the U.S.-Russia strategic agreement shows new dimensions of the problem and may also affect not only transatlantic relations but also U.S. relations with Japan. For example, shale gas exports from Poland might not be good business for ExxonMobil, because it would force Russia to

export cheaper gas to Japan, in turn making the export of gas from the U.S. to Japan less profitable.

Therefore, we can expect to see political efforts to obstruct exploitation of shale gas resources. It will be increasingly fuelled by the trans-Atlantic debate on climate change, regulatory requirements, emissions and supply sources, renewable energy, carbon capture and storage, shale gas exploitation hazards, fossil fuels, nuclear power, energy mix, pollution emitted from coal plants, etc. There is no doubt that Japan, ignoring these obstructions, and supporting through political and investment measures, has a chance to benefit from shale gas and shale oil exploitation in Poland.

The meeting between Chinese Prime Minister Wen Jiabao (left) and Polish Prime Minister Donald Tusk on April 26 was strongly linked to shale gas. (Reuters)

The crucial factor is that China will start exploiting shale gas, which would satisfy its growing demand. It is expected that, from 2016, China will start industrial-scale exploitation of its deposits, the largest known in the world. This is despite the fact that China has turned out to be not an exporter but a global-scale energy importer.

In this context, special attention has to be paid to the recent two-day visit to Poland by

Chinese Prime Minister Wen Jiabao. A special strategic economic treaty between Poland and China has been signed. The visit was associated with meetings with prime ministers of several central European countries and 1,000 Chinese businessmen. Evidently, the talks were strongly linked to shale gas. Therefore, Japan has a chance to buy cheaper gas from Russia, provided both Poland and China exploit their gas on a relatively large scale. This is, in turn, clearly against the interests of Russia. In this context, Japan and China are apparent partners.

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