

From the Varangians to the Greeks – Strategic Impact of U.S. LNG Exports to Eastern Europe

By Ionut Purica

In 1976 Richard Dawkins coined the name of 'meme' for mind entities that generate collective behavior and change, similar to evolution, induced by genes. Looking at recent years we think that there was a sort of collective behavior in concentrating on the East – West direction for gas pipelines under the meme name of the silk road. This is a good thing as long as one keeps in mind the big picture. The choice of TAP versus Nabuco has contributed to break the collective almost obsession of Nabuco over the last few years.

Let's get two steps back and look at the map of the silk road. There are several areas of North – South crossing roads: one is the Russian Federation to China, in the East; another one (see Figure 1.) is the Norway to EU and the North Africa to EU in the West.

Looking at the change of energy paradigm in the world today one may identify another North – South road, in Eastern Europe. This is not a new road since the history of this part of the world records as very popular at the end of the first millennium.

Directive 2008/114/CE defines gas critical infrastructures along with other critical ones. The security of these critical infrastructures needs interconnectors (pipelines) that will be able to transport gas both ways. The discovery of non-conventional (shale and offshore) gas reserves in Poland, Ukraine, Romania and Bulgaria, together with the potential opening of the Baltic Sea, the Mediterranean, and Black Sea for LNG imports from all over the World (e.g., Qatar, USA) provides a likely new gas source for the countries on this road. Along with supplemental imports to the countries mentioned, there is a need for gas in Finland, the Baltic States and Greece. Diversification would be welcomed in order to increase security of supply. (See Figure 2)

The table below shows an interesting story, i.e., that with the nonconventional reserves the region may substantially extend its gas supply availability and its overall energy security.

Maybe it is time to take a 90 degree turn from the East – West line in this region and think of an interconnector of gas critical infrastructures along the old road from the Varangians to the Greeks.

In the table above we have on purpose not mentioned the potential imports from the USA. These quantities are likely to change the geostrategic status of the region. The import market size is about 65 Gcm/y. Presently this is coming from the Russian Federation, This creates a strong vulnerability for most of the countries in the area. U.S. imports are facilitated by the recent LNG terminal in Lithuania and by a potential construction of LNG terminals in Greece and Romania (if Turkey opens the Bosphorus for LNG tankers). Since all these countries are NATO members the safety of an investment in LNG terminals and the interconnector would seem quite secure. Related to the evolution of consumption (that is decreasing in some countries) the gas demand forecast is positive and the price of U.S. imported LNG could boost demand. Given the price differential between gas in the U.S. and gas in this area, U.S. exporters can afford to come in this market and be very competitive.

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Figure 1. North-South connections in the West EU gas network. No connections in Eastern EU.

Dependency on Russian gas imports

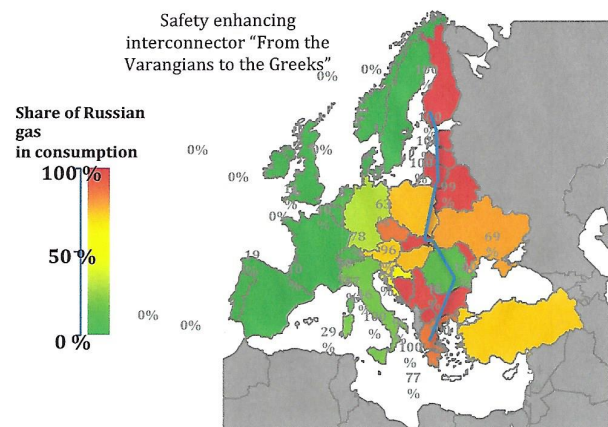


Figure 2 Dependency on Russian Gas Imports
Source: CEDIGAZ-Estimate of international gas trade by pipeline in 2009.

Country	Reserves Gcm	Production Gcm/y	Consumption Gcm/y	Shale Gas Gcm	Imports Gcm/y
Finland	0.0	0	3.6	0.0	3.6
Estonia	0.0	0	0.7	0.0	0.7
Latvia	0.0	0	0.62	0.0	0.62
Lithuania	0.0	0	3.4	0.0	3.4
Poland	121.8	4.3	15.4	4190.9	11.1
Ukraine	107.6	18.2	53.7	3624.6	35.5
Romania	934.5	11	13.8	1444.2	2.8
Bulgaria	0.0	0	2.9	481.4	2.9
Greece	0.0	0	4.5	01.0	4.5
Total	1163.8	33.5	98.62	9741.0	65.12
		Years			
Reserves/Consumption		12	Imports for 35 years (Gcm)		2262.3
Reserves/Production		35			
Reserves+shale/Consumption		111			

- Source
- 1 BP Statistical Review, 2012. Data for reserves, production and consumption except for Estonia and Latvia.
 - 2 EIA Technically Recoverable Shale Oil and Gas Resources: An Assessment of 137 Shale Formations in 41 Countries Outside the United States, June 2013/Data for shale and gas.
 - 3 <https://www.cia.gov/library/publications/the-world-factbook/> data for Estonia and Latvia consumption 2010

Critical Gas Infrastructures Interconnector From the Varangians to the Greeks

References

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Moreover, there is also an effect of potential gas price increase in the US given by the impact of exporting into higher price markets overseas; we think this may be overcome by a proper regulatory activity of the U.S. Government given the strategic (not only commercial) importance of the gas market in East Europe and the need to reduce the vulnerability of these economies.

Finally, it is important to notice that such an interconnector should not be seen as an isolated project but included in the EU and international gas pipes network. Its main role is to increase security of supply in the region and through this to allow better competition with the associated effect on prices. To make such a project a reality, a joint effort is needed to generate the project's credibility that will attract the investment needed. It may not be easy but we think it would be worth trying to build a long term, secure and strategic market for U.S. exports of LNG.

