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U.S. Natural Gas Not a Solution to Europe's Energy Dependency on Russia

Can U.S. energy companies replace Russia as Europe's supplier of natural gas? Natural gas is the heating fuel of choice in Europe and most of Europe's supply comes from two countries - Norway and Russia. About one-third of Europe's natural gas needs (including almost 40% of Germany's consumption) are supplied by Russia. Gazprom, Russia's giant natural gas company, supplies 34% of Europe's gas needs mostly via pipelines through Ukraine. Since Russia seized the Crimea, and Gazprom cut off gas supplies to Ukraine, Europe's reliance on Russian gas seems to be an increasingly risky proposition. Some political leaders in the U.S. are eying the Ukrainian crisis as an opening to sell American LNG to Europe.

The United States, in the midst of a natural gas production boom, would seem to be an obvious alternative source. Since the advent of fracking and horizontal drilling technologies, vast North American shale reserves have been unlocked. In fact, the U.S. surpassed Russia in natural gas production to become the world's largest producer in 2009. The U.S. Energy Information Administration projects that natural gas supplies in the U.S. will exceed domestic demand by 2016. The U.S. will be a natural gas exporting country very soon.

So, replace Russian gas with American gas. Europe will be more secure; Vladimir Putin loses geopolitical power; and U.S. companies make money. Simple, right? Wrong. Selling U.S. LNG to Europe is a fantasy. The U.S. does not have the LNG export infrastructure to supply Europe, and, even if it did, Russian gas would still be the cheaper alternative for European buyers.

The U.S. oil and gas industry, and its supporters in Congress, have jumped on the Ukrainian crisis to promote the idea of American natural gas exports to Europe. Congressional Republicans would have us believe that the U.S. can rescue European heating fuel customers from Putin's clutches if only the U.S. Department of Energy would speed up the approval of permits for the construction of LNG export terminals. The process takes months! The Obama administration is dragging its feet! On June 25, the House passed a bill that would give automatic approval to construction and operation of new LNG export terminals. A similar bill, the North Atlantic Energy Security Act, was introduced by a trio of senators, John Hoven (R-ND), John McCain (R-Ariz) and John Barrasso (R-Wyo) on July 10 to cut through the red tape which is supposedly stopping us from selling natural gas to European countries.

But the difficulty in selling U.S. LNG to Europe has very little to do with government permits. DOE has approved seven LNG export facilities since 2012 and rejected none. There are 23 more proposals under review. The problem is that building an LNG exporting infrastructure large enough to make a dent in the European market will take at least a decade and hundreds of billions of dollars in private sector investment. No amount of legislating or criticizing the Obama Administration will change that.

In order to ship LNG overseas, natural gas has to be delivered by pipeline to a shipping terminal, liquefied by cooling the gas to minus 260°f, put on tanker ships as a liquid, off-loaded as a liquid at the receiving port and converted back to a gas. Constructing a full scale LNG export terminal costs \$9 billion to \$10 billion. The earliest exports to Europe from Chenier Energy's Sabine Pass, Louisiana terminal won't be until late 2015. Sempra's Cameron Louisiana LNG terminal, originally constructed to receive LNG imports, will begin a \$6 billion over-haul later this year to convert the facility to an export terminal. That project won't be completed until 2016. Other projects won't even begin construction until 2017.

Europe needs to develop its LNG importing infrastructure as well. There is one import terminal in Spain that could take US deliveries and funnel American gas into the European distribution network. Construction is scheduled to begin this year on a \$300 million floating LNG import terminal in Lithuania. Much more will be needed to open Europe to LNG supplies from the Western Hemisphere.

Infrastructure is not the only obstacle to selling U.S. natural gas to European consumers. Unlike oil, a commodity for which there is an integrated international market, natural gas prices are regional. The North American, European and Asian markets are independent from each other, each with its own price. Europeans will purchase from the lowest cost supplier. American natural gas will not necessarily be price competitive with Russian natural gas in Europe.

The Henry Hub spot price on July 7 was \$4.31/mmBtu. If the infrastructure existed to sell LNG to Europe, add \$5 to that price for converting the gas to LNG and shipping it to Europe. The London spot price for natural gas is in the \$6.25/mmBtu range. Goldman Sachs analysts estimate that if U.S. natural gas could be shipped to Europe, U.S. LNG prices would be 35% to 40% higher than Russian prices. Even if European prices rise high enough to entice U.S. sellers, analysts say that Norwegian, Russian and Algerian producers may respond by undercutting U.S. prices.

America's export market for natural gas is not Europe – its Asia. Japan and South Korea are the world's largest LNG importers and Asian prices are more than \$4/mmBtu higher than European prices. In fact Sempra's Cameron LNG terminal, set to begin construction in Louisiana, is already committed to sell 300,000 tons of LNG per year to Toho Gas Company in Japan under a 20-year contract beginning in 2018. No one, outside of the U.S. Capital dome, is committed to selling American natural gas to Europe. Asian natural gas prices have been in the \$15/mmBtu range. Although Asian prices have been falling for ten straight weeks with steady supplies coming from Australia, Qatar and Indonesia, at less than \$11/mmBtu, Asia is still a more attractive market than Europe.

There are of course reasons to be concerned about European energy security. 54% of Russian natural gas to Europe passes through Ukraine. Russia did cut off the flow through Ukraine to Europe for 3 weeks in 2009. But the U.S. contribution to European natural gas security will be indirect. It won't come in the form of LNG shipped to Baltic or Mediterranean ports. It will come in the form of increased global supply. By reducing imports from Qatar, the U.S. has already eased pressure on Asian markets, which encourages Russia to make all of its supply available to European markets. Once the U.S. becomes a significant LNG exporter to Asia, Europe will benefit by the increase in world supply which will advance the development of an integrated global LNG market and further relieve price pressure in Europe.