

Deepening and Expanding *the European-Caspian Gas Link*

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Abstract

This article outlines tangible steps both energy consuming and producing nations need to take to develop in tandem the trade in oil and gas between Caucasus and downstream European states. It suggests that downstream states take into account the fully burdened cost/value of gas, as an example, in examining the net added value of uninterrupted supply of gas to European economies as a public good. It insists that states have a unique role to play in this equation. States have an enlightened self-interest in maintaining economic continuity and performance, in protecting their citizens through the provision of essential goods and services which in the industrialized world include heat and light, and in providing for national security. If states can be encouraged to diversify their energy resources, over short-term obstacles such as monopoly competitor pricing, then competition can begin to be introduced in captive markets.

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The present state of European energy security or more appropriately the continent's litany of energy insecurities is not a cost-free proposition. Lack of investment now, for example, to protect critical infrastructure, to ensure the resiliency and integrity of energy networks that deliver power and fuels or to invest in due diligence research that ascertains the cascading economic effects of future denial of benefit from energy flow in net present value terms has a real cost in compounded terms when an energy event occurs. Those who advocate deepening and expanding the European-Caspian energy gas link should think about this argument and use it to their advantage.

There are of course many externalities that challenge developing the European-Caspian energy link. These externalities on the one hand can strain already tenuous connections between many of the smaller, landlocked Central and Eastern European states and end up driving prices higher for end-users. On the other hand, Caspian gas producers want to commit to over-supplying markets with the potential knock-on effect of driving gas prices lower to their detriment. They are also unwilling to commit gas volumes to fictive pipelines if these pipelines do not have adequate gas volumes to meet their design capacity. In this case, those

who commit product to an under-utilized pipeline may see their delivered price of gas go higher and their net-back revenue smaller had they committed the same volume of gas to another transit pipeline with a higher utilization rate and therefore a more equally shared economic burden among the many producers using this pipe to bring their product to market.

However, there is a middle ground to be sought that at once calculates the cost-benefit of enhancing European energy security and at the same time puts forward a rational argument for increasing European market access to Caspian gas producers

Externalities in European gas

The explosion of unconventional gas development in the US is diverting LNG deliveries destined for the US market to Europe. This makes LNG shipments from Qatar, for example, attractive on European gas spot-markets, puts downward pressure on delivered piped gas prices to European consumers and has even fueled talk of shale gas development in Europe. The further development of the Arab gas pipeline is another project of interest potentially tying Egyptian gas deliveries through Turkey to the lingering Nabucco pipeline. The European Union's demand management objective of a 20% reduction in en-

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ergy demand through the introduction of energy efficiency measures, particularly in the building sector, should help moderate a steep rebound growth trajectory for gas prices in a post-recessionary period. And finally changes, alterations, and advancements in technology could even spur future demand for gas liquids or stimulate future demand for gas-fired electricity with the large-scale deployment of electric or gas fired vehicles. These are only some of the trends that both gas producers and consumers will contend with over the coming decade as domestic European gas reserves continue to decline while gas remains the fuel of choice for European power and industrial production.

The European-Caspian link today has an even more immediate set of challenges to overcome. Looming large among these is Russian dominance over the European gas market and significant gas import dependence by

many of the post-2004 EU Member States. For years, the EU has regularly dealt with Russian gas as though it was a supply inevitability while since 2006 the gas issue has been as overtly political as much as it has been commercial. This has given rise across Europe to intensified discussion about energy security and increased scrutiny within energy ministries and in the defense and intelligence communities on the role that energy plays within a national or regional European security framework. It is on the energy security issue that Caspian gas producers have a comparative advantage over their Russian counterparts and this is an advantage that should be exploited.

Comprehensive energy security at the national, regional or even global level is different than simple supply security which can be defined as sufficient supply to meet anticipated demand. Energy security rests on three pillars: diversification in power generating capacity (fuel-mix), diversification in the transit infrastructure which carries commodities which are ultimately combusted for power or transportation purposes, and diversification in the country-of-origin of given supply. Those along the entire energy supply chain from producer to consumer have their own, and often competing, definitions of their own energy security. Producers want ac-

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cessible markets that can meet their price expectations and end-users require available supply at what they consider reasonable prices. When a nation fails to meet its own national energy security objectives by failing to address the diversification issue, markets become susceptible to behavior that is manipulative in nature.

To use an analogy from the oil market to illustrate the point regarding nuanced differences between energy and supply security, when OPEC makes oil available to global markets this provides a thin buoyancy to oil supply in what is typically a tight market. This does not address the security vulnerabilities associated with oil dependency particularly in the transportation sector. Neither does it address growing global dependency of supply on a handful of OPEC producers that manipulate output and by association price for this monopoly commodity. In fact, whatever supply

stability that exists in oil markets today is attributable more to a decline in economic activity and therefore reduced demand than it is due to the efforts of cartel producers to maintain sufficient oil supplies at reasonable prices. For the past two decades increased demand for oil has been largely met by non-OPEC oil producers. OPEC today is not producing a single more drop of oil than it did in 1973.

The same can be said for the European gas market. Increasing gas supply availability to downstream European countries is a good thing. But if steps are not taken to diversify the country-of-origin of delivered gas then security vulnerabilities stemming from dependency on a predominant supplier, in this case the Russian Federation, remain unmet. No numbers of gas transit diversification projects change the fundamentals of this reality if delivered gas maintains or more importantly increases dependency on an already dominant supplier. This observation may appear evident but in practice real progress towards natural gas country-of-supply diversification has been poorly addressed by the gas-dependent collective of the EU.

For Caspian states seeking to functionally and reliably compete in and diversify the European gas market,

the message should be that Caspian gas provides a national security premium to European consumers. Caspian gas meets the objective of a diversification in source of supply (country of origin) for import dependent European states.

Deepening the link through calculating costs

The status quo of European energy security or more appropriately the continent's litany of energy insecurities is not cost-free. European energy insecurities have associated costs that should be elaborated upon by advocates for deepening and expanding the European-Caspian energy gas link.

When triggered by an energy event, people and countries know immediately that their energy security is vulnerable. The cost of gas supply disruptions, price shocks, power blackouts and shortages are all calculable. Unfortunately these costs are frequently calculated in a post-event environment as the opportunity cost of not having done something to prevent or to have taken sufficient pre-event steps for preparing for an energy emergency that can either degrade or destroy the ability to ensure the congruity of energy flow. There is an argument however that follows the logic of calculating the cost of energy

insecurity in a pre-event environment in order to catalyze energy policy making capacity building directed at creating resiliency in an energy system that can withstand the disruptive impacts of a negative energy-event.

One example that might add weight to adding to Europe's built environment for gas delivery or in diversifying its gas by country of origin is taken from the U.S. experience from the Katrina disaster. U.S. analysts, in the post-Katrina period, estimated that the clean-up costs for that natural disaster were 15 times greater than if more robust preventative actions had been taken in the first place. Whether the Katrina ratio for determining the costs of disaster relief versus disaster prevention holds true for the costs of bolstering energy security for European nations is unknown. What is possible though is to exercise due diligence though an economic analysis of what the most cost-effective steps would be towards energy security enhancement. At a minimum the successful execution of such an exercise would provide benefit to both Caspian producers (as grist for negotiations) and to European energy consumers in estimating the net economic value of energy security and/or the net opportunity cost of doing nothing at the extremes.

Second step

Calculating the cost of enhancing a nation's energy security is not an intuitive exercise. One illustration that bears this out, is comparing the pathways that the Slovak Republic and the Czech Republic followed in the period since their mutual independence in the 1990s. Analysts Andrej Nosko and Petr Lang have pointed out that the Czech Republic has taken several decisive steps to correct their asymmetric dependency on primary energy resources in the form of Russian gas whereby the Slovak Republic has been slower to act in this regard. They write, "That particular country [Czech Republic] was equally dependent [as other Central and Eastern European countries in the post-Soviet period] on a single source for energy imports for all of its imported uranium, oil and gas ... yet has since managed to successfully diversify its energy imports. This prodigal country, the Czech Republic, has been the only landlocked country of Central and Eastern Europe to establish an effectively functioning energy market. The choices made in the early transition period by the Czech government have provided the country with higher energy security, which in return has enabled the government to exercise greater political and economic liberty in its policies as compared to some of its neighbors."

It is only through comparison, in this case with the Slovak Republic, that the magnitude of importance of the steps the Czech Republic has taken can be fully appreciated and then measured in economic terms. Nosko and Lang write with respect to the current energy-security history of Slovakia that, "After failing to secure its own energy supply (and especially natural gas) for years, Slovakia was one of the worst hit countries in Europe during the 2009 Russia-Ukraine gas crisis. According to some sources, Slovakia lost 100 million Euros a day, or 1 billion Euros over the duration of the entire crisis, and the gas-cut related recession led to a 1-1.5 percent decrease in GDP."

National tax revenues in January 2009 dropped by 40 percent (due to both the gas crisis and the recession). Some Slovak companies, as part of their own contingency plans, which were to be invoked in the event of an energy crisis, even began to prepare to relocate parts of their production elsewhere. Some companies chose not to disclose an exact quantification of their losses (not even to the Ministry of Economy), so the real extent of the impact remains unknown. This is a real wake-up call of what happens when energy security is taken for granted."

Interestingly Slovakia at least in part

based its national energy security strategy on the crucial role that it plays in transiting Russian gas to other EU Member States. Obviously successive Slovak administrations thought its key role in transiting Russian gas provided a level of domestic security which did not play out during the 2009 Russian-Ukraine gas crisis. The measurable fall-out was that on top of lost tax revenue, a loss of economic activity at 100 million Euros a day and a precipitous fall in GDP, Slovak consumers ended up paying higher prices for this gas than neighboring states. This either discounts the benefit of Slovakia's key role in transiting Russian gas or accentuates the importance in this country's failure to diversify its gas country-of-origin or fuel-mix and lack of interconnections with neighboring states or both. Future gas transit states, postulated to take part in new Russian gas transit infrastructure, might want to consider the implications of the Slovak-case.

Lessons learned

First, getting a handle on fuel diversification, by country of origin, is important for both gas importing states and Caspian producers seeking direct access to downstream European markets. This need not be a 'what-if' exercise involving future scenario planning but in looking at 'what-might-

have-been' in Slovakia's case had they strictly adhered to a diversification strategy in all three domains. Second, if both gas importers and Caspian producers work together on determining the economic fallout of the gas crisis (with Slovakia as but one of many potential case-book examples) then the future value of diversification strategies can be cost-compared. In this case, Slovakia is a small country and one can well imagine that had even one interconnector been built for supply diversification then the economic benefit of this diversification strategy would have rendered real monetary value to the Slovak economy by having mitigated the estimated lost \$1 billion in economic activity over the duration of the Russian-Ukraine crisis. This doesn't even begin to scratch the surface of the other intangible benefits of energy security which allows for enhanced national sovereignty, clear lines of decision making in the national interest, and in a more secure and sustainable future for citizens.

Getting with the program

Setting aside a discussion of the issue of subsidiarity ensconced in Article 5 of the Treaty establishing the European Community, the European Union now appears ready to act on the behalf of its Member States to take more seriously the issue of communi-

ty-wide energy security. In its Communication of November 2010, “Energy 2020 - A strategy for competitive, sustainable and secure energy,” it announced a call for investment of approximately 1 trillion Euros in new investment to complete the internal energy market, advance EU climate change objectives and in doing so to bolster European energy security. It has stated that no EU Member State (in all directions) should be isolated (as some presently are) from a stable cross-border flow of electricity and gas after 2015. Again it is vastly important to remember however that no

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number of gas transit diversification projects or plans changes the fundamentals of enhancing diversification if delivered gas maintains or more importantly increases dependency on

an already dominant supplier. And again this is the unique comparative advantage that Caspian gas producers have over their Russian gas counterparts and should be reiterated by Caspian producers at every opportunity.

Energy security is complex because it is not a strictly mechanistic exercise. Rigor can, and admittedly should, be brought to bear on determining the economic value of prevent decisions (contributing to a new built environment for energy transit as an example) versus the fall-out cost in hesitating in proceeding with fuel-mix alternatives or in adding robustness in power generating capacities. These considerations leverage the added value of alternative European gas supplies in achieving the end-game of gas diversification measured by diversification in the country-of-origin for these supplies. These considerations involve the role and responsibility of the state as they should.

Role of the State

Enhancing energy security is not strictly a business-to-business proposition. States have a unique role to play in this equation. States have an enlightened self-interest in maintaining economic continuity and performance, in protecting their citizens through the provision of essential

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goods and services which in the industrialized world include heat and light, and in providing for national security. If states can be encouraged to diversify their energy resources, over short-term obstacles such as monopoly competitor pricing, then competition can begin to be introduced in captive markets. In doing so it will open up Europe to Caspian gas, enhance overall EU energy security, lessen the Russian Federation’s ability to leverage its energy power over non-energy decision making in energy dependent downstream states, and in doing so provide sustainable energy security and a more robust national security profile for those who participate in this diversification exercise.

But this will not happen by itself. Numbers need to be crunched and strategies pursued that champion the net added value of Caspian gas to European energy consumers and their security. It might end up that if allowed direct European market access, Caspian producers could even

offer their gas at a marginal cost premium to competitor monopoly pricing provided that the upside of such a premium be demonstrated in economically rational terms. This places the onus of responsibility on the producer for pursuing this task but concurrently holds out the possibility of substantial reward to those who do.