

Connecting the Baltic States to Europe's Gas Market

By Ambassador Matthew J. Bryza & Emmet C. Tuohy

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Introduction

More than two decades after the end of the Soviet occupation, and eight years after they joined NATO and the European Union, the Baltic republics remain disintegrated from the rest of Europe in one crucial way: their natural gas infrastructure isolates them into "energy islands." Yet, for the first time in their histories, Estonia, Latvia, and Lithuania now have a chance to secure their energy independence by connecting their natural gas networks with those of their European allies and evolving them into market-based trading systems. This will require the Baltic republics to work with their EU partners to develop physical and regulatory infrastructure required for liquid trading hubs and spot-market pricing of natural gas to emerge in the region. By achieving these objectives, these three small countries on the EU's periphery will help the EU achieve two key strategic goals: to establish a single European energy market; and to complete the full integration of the EU's easternmost member states into a Europe that is whole and free.

As a Soviet-era legacy, the natural gas networks of Estonia, Latvia, and Lithuania are supplied only by the Russian companies Gazprom and its ally Itera through links to the grids of Belarus, and mainland Russia; projects that will connect the Baltic republics to the rest of the European Union remain either in the "proposed" or "projected" phases. The isolation of the Baltic states from the EU's natural gas networks is incompatible both with these states' individual economic needs and with the EU's collective vision of a unified European energy market.

The economic impact of the Baltic states' dependency on a single natural gas supplier can be considerable, as for example Lithuania has experienced. In 2012, Gazprom flexed its monopolistic muscles by charging Lithuania \$497 per thousand cubic meters (tcm) of natural gas—over 15% higher than the \$431.30 it charged Germany, whose considerably greater distance from Russia's border should result in a higher price to cover transportation costs. Moreover, the average price Gazprom charged its European consumers was only \$381, or 30% higher than in Lithuania. Gazprom's price-gouging in Lithuania reflected Moscow's attempt to punish Vilnius for proceeding with EU directives to reduce Gazprom's monopoly power and prepare for a unified EU energy market by the end of 2014. As the company's vice president Valery Golubov explained, "Vilnius's inadequate behavior while restructuring the gas sector, and trying to separate the gas transmission pipelines from SC Lietuvos Dujos [Lithuania's gas transmission and distribution company, of which Gazprom is the dominant shareholder]" justified the price increase. ¹

In addition to unilateral price hikes, dependency on a single monopolistic gas supplier can also lead to supply interruptions, which, in the dead of winter, can prove politically disastrous for national leaders and even deadly for consumers. In Estonia, for example, during peak winter gas demand, restrictions on the Russian side of the transmission system can render the Narva

¹ Алексей Грибач [Aleksei Gribach], "Зампред правления «Газпрома» Валерий Голубев: «Цена газа для Литвы не зависит от состава правления Lietuvos Dujos» [Gazprom deputy chairman Valery Golubev: "The price of gas for Lithuania does not depend on the composition of the board of Lietuvos Dujos"], Московские Новости [Moskovskie Novosti], February 11, 2012, available at http://www.mn.ru/business/20110211/300430801.html



and Värska cross-border points inactive,² as Gazprom strains to meet demand in St. Petersburg and northwest Russia—and as gas stops flowing into Estonia. According to the contract between Gazprom and Eesti Gaas (Estonia's gas importer and distributor, in which Gazprom holds a plurality stake), under such circumstances, Estonia is forced to rely exclusively on the underground gas storage (UGS) facility at Inčukalns, Latvia, in which Gazprom also holds a significant stake affording it effective control. . Since the facility has limited sending capacity during times of peak demand, and since the gas interconnection between Latvia and Estonia cannot deliver more than 6 to -7 million cubic meters (mcm) per day, Estonian consumers can face cutoffs when they are most vulnerable. This came close to occurring in 2006 when frigid weather pushed Estonian gas demand to almost 7 mcm/day.

The risks of gas price hikes or cutoffs also provide Moscow significant geo-economic and geopolitical leverage, which it has not shied away from using against the Baltic republics and other EU members. Hence, the perpetuation of such "energy islands" poses a threat not just to the energy security of the Baltic states, but to their national security as well.

Toward a Unified Market: the EU's "Third Energy Package"

During the past decade, the European Union has gradually recognized the strategic importance of eliminating these Baltic "energy islands." EU energy policy now aims to couple Baltic natural gas networks with those of their EU Allies in pursuit of two key strategic goals: creation of a single unified energy market in Europe; and completion of a post-Cold War Europe that is whole and free.

It took decades for the EU to reach this strategic conclusion. Previously, Europe's largest countries acquiesced to Gazprom's demands to lock in high prices via long-term supply contracts, which pegged the price of natural gas to the higher price of oil. This formula resulted in European consumers paying three or four times the original price paid by Gazprom for Central Asian gas that the Russian firm then pumped westward via its pipelines. Ostensibly, Gazprom charged higher prices to recover its large investments in constructing these pipelines. However, Gazprom also used the enormous rents generated by this price spread to purchase strategic infrastructure nodes in Europe to shore up its monopoly power. In any case, European consumers have paid considerably more for natural gas than they would in a liquid market.

Rather than being alarmed by these trends, the EU's biggest countries argued that Gazprom had always been a reliable supplier; moreover, with little competition from alternative importers, major European leaders saw no sense in aggravating the largest foreign supplier of one of their most politically sensitive commodities. Moreover, powerful countries like Germany, France, and Italy enjoyed a sense of security in their access to diversified supplies of natural gas from the North Sea and the Mediterranean, while smaller states heavily dependent on Gazprom were easily intimidated when Gazprom threatened to cut off gas flows in winter in response to demands for lower prices.

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² Ramboll Estonia, *Comparison of LNG Terminals in Paldiski, Muuga, and Inkoo: Compiled Report* (Tallinn: March 2010), p. 20, available at http://www.baltigaas.eu/?action=files.get&id=65



This acceptance of Gazprom's monopolist tactics left much of Europe without diversified supplies of natural gas and therefore, without a genuine market. Instead of enjoying lower prices determined by market forces of supply and demand, Europe accepted Gazprom's insistence on pegging the price of gas to that of oil. As a result, European consumers still pay three to four times more than their counterparts in the U.S., where prices are determined by market forces at trading hubs in the world's most liquid natural gas market.

However, Europe has awakened since Gazprom cut off gas in January 2006 to Ukraine, the country through which Russia was sending 80 percent of its gas exports to the EU. Encouraged by Washington, the EU decided to take action to reduce Gazprom's monopoly power. The European Commission developed a collection of regulations known as the "Third Energy Package" to create a unified European energy market in which prices would be determined by competition among multiple suppliers. The Third Energy Package mandates that EU member states:

- Unbundle natural gas transit and distribution networks to reduce the monopoly power of energy suppliers (both European and non-European);
- · Diversify sources of gas supply;
- · Connect European gas grids across EU member states;
- · Expand gas trading hubs; and
- Integrate gas storage facilities into liquid trading systems based on trading hubs.

Strategic EU Interests in Baltic Spot Markets for Gas Trading

A key element of the EU's effort to establish a single and unified energy market is to expand the free-market trading of natural gas. This requires the expansion of gas trading hubs, places near where gas is traded among several nearby suppliers who compete for buyers, resulting in prices being set according to market forces of supply and demand. The market efficiency of a hub depends on its liquidity, i.e., the degree to which a given gas trade can take place without affecting the price of subsequent trades. The level of liquidity defines the extent to which market forces determine price. Liquidity at a gas trading hub requires several factors: diversified and reliable gas supplies via nearby liquefied natural gas (LNG) terminals and/or pipeline networks; gas storage facilities to manage peak winter demand; and distribution pipelines to consumers that operate transparently under market-friendly regulations.

In recent decades, several natural gas trading hubs have emerged in the North Sea Basin, and now form the nucleus of Europe's future single natural gas market. The first was the UK's National Balancing Point (NBP), created when the British Government privatized British Gas in December 1986 and ordered the company to release gas volumes to independent suppliers who could then compete for customers. Other nearby hubs subsequently arose, and now include the Title Transfer Facility in the Netherlands, Zeebrugge in Belgium, NPS Gas in Denmark, NetConnect Germany and Gaspool in Germany, and PEG Nord in France. All are competing to surpass NBP in liquidity and become Europe's primary point for trading gas produced in countries such as the UK, Netherlands, Denmark, Norway, and Russia. They face



additional competition from the Central European Gas Hub (CEGH), located at Baumgarten on Austria's border with Slovakia.

The liquidity of gas trading at these hubs has increased with the arrival of additional competing suppliers, especially as the tremendous boom in shale gas production in the United States has displaced to Europe LNG cargoes previously destined for the U.S. Moreover, increased liquidity has allowed spot markets to emerge at each hub, where prices are set not by the price of oil, but by competitive trading.

Thanks to competition among the hubs themselves, their spot prices have converged since 2008 into a single price—and thus, a single market—for the entire North Sea Basin. This is a dramatic development: it means millions of consumers in Northwestern Europe can now purchase natural gas at prices determined by the free market rather than monopolists. Consequently, both natural gas prices and monopolists' leverage have decreased in markets served by North Sea trading hubs.

Gazprom has staunchly resisted the spread of hub-based trading in Europe, which it recognizes as the biggest threat to its monopolistic influence in its most important markets. But, the Russian monopolist now appears to be losing the battle with market forces that have emerged at North Sea trading hubs. Gazprom is under pressure to sustain high gas sales prices to recoup the colossal cost of the Nord Stream pipeline, which aims to bolster the firm's monopoly power by bypassing the Baltic states, Poland, and troublesome Ukraine through a direct pipeline between Russia and Germany under the Baltic Sea. Yet, as will be shown below, spot market pricing at trading hubs around the North Sea are allowing European consumers to compel Gazprom to sell gas delivered via Nord Stream at prices significantly below what it projected to meet the rate of return it promised investors. As a result, Nord Stream's excessive final cost of €7.4 billion (\$9.9 billion) has triggered investor discontent by weakening Gazprom's net profit and overall value.³

The new leverage with Gazprom that European consumers obtained from North Sea spot markets was first evident in February 2010, when competition among multiple gas suppliers enabled the TTF to secure an important concession from the Russian supplier: spot-market pricing would determine 15% of Gazprom's sales price at the hub (with indexation to the price of oil defining the remaining 85% of the price). This precedent was followed in early July 2012 when Gazprom acquiesced to demands by the German firm E.ON for its own price discount in return for continued acceptance in principle of oil-linked gas pricing. Sergei Komlev, head of contract structuring and price formation for Gazprom Export, stated that Gazprom was willing to make this unusual concession to protect the link between gas and oil in its pricing model. "The overall discount remained within Gazprom's set range of no more than 7-10 percent (and) the oil-linkage in this long-term contract was preserved intact," Komlev explained.⁴

BMI Emerging Europe Oil and Gas Insights, "Concerns High as Capex Takes a Toll on Gazprom's Net Profits, Cashflow", DownstreamToday.com, April 5, 2012, available at http://www.downstreamtoday.com/News/ArticlePrint.aspx?aid=35942.

⁴ Henning Gloystein, "Analysis: Russia Takes Long View to Defend Europe Gas Supply", *Reuters*, July 5, 2012, available at http://www.reuters.com/article/2012/07/05/us-energy-gas-europe-gazprom-idUSBRE8640FN20120705.



By November 2012, Gazprom's optimism had turned into a defiant, almost desperate stubbornness. On November 20, the day Norway's Statoil signed a contract with Germany's Wintershall to supply gas via spot-market pricing in a deal large enough to displace Gazprom as the biggest gas supplier to Germany, Gazprom's vice president Alexander Medvedev declared that "[w]e will defend the system of long-term contracts with all our energy." Yet subsequently, due to "a flood of cheap liquefied natural gas cargoes from other sources," Gazprom has been subsequently forced to lower prices for several large European customers.

Bringing Spot Market Pricing to the Baltics

Despite Gazprom's fierce resistance, hub-trading of natural gas is now expanding eastward beyond the North Sea. In the Baltic region, governments are working with the European Commission to put in place the gas supply, storage, and transportation infrastructure required to reduce the current 100 percent dependence on Russia of Estonia, Latvia, Lithuania, and Finland.

Recent public debate on the Baltic region's energy independence has focused largely on plans to construct LNG terminals in each of the three countries. LNG is indeed a critical element in any strategy to diversify sources of supply of natural gas and thereby help the EU establish a unified energy market through expansion of hub-based trading. Nevertheless, LNG terminals alone will not suffice to establish gas trading hubs in the Baltic region; liquid trading of natural gas will require that such terminals be integrated into a regional supply, storage, transportation, and trading network that allows gas to reach consumers according to price signals sent by the market. In the Baltic region, this network should include three specific projects:

- The Gas Interconnection Poland-Lithuania (GIPL) pipeline project to help the Baltic states diversify their sources of natural gas supply;
- Modernization, expansion, and ownership restructuring of the Inčukalns gas storage facility in Latvia and its pipeline connection to Estonia to eliminate Gazprom's ability to restrict the free flow of gas throughout the region; and
- An LNG terminal in Estonia with a subsea pipeline connection to Finland, which will
 diversify regional gas supplies and establish a large enough regional market to facilitate
 spot trading..

The EU should designate each of these as a Project of Common Interest (PCI), thereby would affording them the political and financial support required to succeed. Working with the academic community, the EU should also discourage the "go it alone" approach each Baltic state has followed to date, and instead encourage all three to work with each other and with

⁵ Howard Amos, "Gazprom Faces Challenges at Home and Abroad", *Moscow Times*, December 26, 2012, available at http://www.themoscowtimes.com/news/article/gazprom-facing-challenges-at-home-and-abroad/473626.html

Roman Olearchyk and Neil Buckley, "Ukraine Gas Deal Loosens Russia's Grip", *Financial Times*, January 24, 2012, available at http://www.ft.com/intl/cms/s/0/f5decc00-6641-11e2-b967-00144feab49a.html



Finland to establish trading mechanisms and regulations required for trading hubs to emerge as happened in the North Sea basin.

Lithuania: GIPL pipeline Connection with Poland

Lithuania has been the most aggressive Baltic state in reducing its dependence on Gazprom and in supporting the EU's quest for a unified energy market. In 2011, Lithuania adopted the EU's Third Energy Package before any other member state, and moreover chose the strictest option offered by the directive. Vilnius immediately announced plans to contract for a floating LNG terminal at Klaipėda, with a target start-up of 2014 and a projected capacity of 2 to 3 bcm per year. It also announced it would end Gazprom's control of Lithuania's natural gas distribution network by separating the country's internal pipelines from its import pipelines. Then, in September 2012, Lithuania helped prod the EU into launching an antitrust case accusing Gazprom of stifling competition in European markets by restricting the interstate trading of natural gas, blocking rival gas-pipeline projects, and pegging the price of natural gas to oil prices.

The LNG terminal at Klaipėda would free Lithuania from its total dependence on Russia for gas supplies via its one-way import interconnection from Belarus, a bi-directional interconnection with Latvia used only in emergencies, and a one-way export connection to Kaliningrad, Russia. Questions remain, however, about the commercial attractiveness of the floating terminal, which is not a candidate for EU funding.

Regardless of the future of its LNG terminal, Lithuania can do even more to facilitate the emergence of gas trading hubs in the Baltic region by proceeding with the Gas Interconnection Poland-Lithuania (GIPL) pipeline. GIPL is planned as a 562-km line with a 2.3 billion cubic meter (bcm)/year capacity. The project would ensure increased competition among gas suppliers in Lithuania by providing customers diversified gas supplies and access to the EU gas spot market in the North Sea basin. Moreover, GIPL would afford Lithuania and its Baltic partners access to the benefits from expanded liquidity of gas trading once Poland's LNG terminal at Świnoujście comes online in mid-2014.⁷ To play this role as facilitator of a hubbased trading system for natural gas in the Baltic region, GIPL would also need to be connected to Latvia and Estonia via expanded pipeline links (see below).

GIPL is moving forward with EU support, but needs even more help from Brussels. Lithuania's national gas company, Lietuvos Dujos, and the Polish engineering firm ILF, plan to complete their feasibility study for GIPL during the first quarter of 2013, with co-financing from the European Commission through its Trans-European Energy Network Programme (TEN-E). Lietuvos Dujos is counting on the EC to provide grants of up to 80% of the projects full cost to allow a final investment decision to be taken in 2013, in which case GIPL could become operational in 2016-17. The pipeline's expected costs are €537 million: €471 million during the first stage of development, and €66 million during a subsequent expansion to a capacity of 4.5

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⁷ Maciej Onosko, "Poland Says LNG Terminal to Open in Mid-2014 Despite Builders' Woes", *Reuters*, July 13, 2012, available at http://www.reuters.com/article/2012/07/13/poland-lng-deadline-idUSL6E8ID34U20120713



bcm. In addition to financial support, EU political support will be needed to encourage the political leaders of Lithuania to develop a common strategy with their Latvian and Estonian counterparts to integrate GIPL with the other priority projects described below.

Latvia: Independent Gas Storage at Inčukalns

Natural gas storage is a critical element in any gas trading hub. This is because natural gas production remains constant throughout the year, including in summer when demand is low and gas that continues to be produced must be stored until it is needed in winter. Absent sufficient storage capacity near a trading hub, spot-market pricing will disappear in winter and the hub's liquidity will remain highly restricted.

Fortunately, the Baltic region has an underground gas storage (UGS) facility at Inčukalns, Latvia. The Inčukalns UGS supplies industrial and residential end-users throughout the region, with roughly 50% of winter withdrawals allocated for Latvia, 25% for Estonia, and 25% for northwest Russia, (with Lithuania now only rarely drawing on the UGS).⁸ However, the facility already operates near its full capacity of 2.32 bcm, which is insufficient to support a future gas trading hub.

A second serious shortcoming of the Inčukalns UGS is its ownership structure. Gazprom enjoys operational control over Inčukalns, which it has the right to manage through 2017. Together with the closely linked Itera, Gazprom also holds a combined controlling stake in Latvijas Gaze, the Latvian company that holds management rights over Inčukalns until 2030. According to Latvijas Gaze's management contract, third parties cannot connect to the facility until 2017.9 For now, even modernization of Inčukalns is supervised by Gazprom through its subsidiary, Gazprom Geofizika, under a 2009 tender. This means that Inčukalns will remain under the control of its monopolist gas supplier, which relies on that same gas to supply Russian consumers (whose needs it has historically met before those in Europe during peak winter demand), and which remains opposed to the advance of gas trading hubs. relies on that same gas

This domination of Inčukalns' operations by Gazprom requires the EU should play a key role in expanding and restructuring ownership of the storage facility. Otherwise, the EU will fall short of its strategic goals of eliminating Baltic energy islands and establishing a unified European energy market.

Under its European Recovery Plan (EERP) fund, the EU has contributed €7.5 million to Latvijas Gaze's planned €170 to €180 million expansion of Inčukalns's capacity from 2.32 to 3.2 bcm by 2020. The most recent technical study completed by the company in 2011 calls for building a new gas collection facility, modernizing and installing compressor units, and constructing new connecting pipelines to consumers in Latvia. This gas could reach consumers in Lithuania

⁸ Analysis of Costs and Benefits of Regional Liquefied Natural Gas Solution in the East Baltic Area, Including Proposal for Location and Technical Options under the Baltic Energy Market Interconnection Plan (Milan: Booz & Co., November 2012), pp. 15-16, available at

http://ec.europa.eu/energy/infrastructure/doc/20121123 Ing baltic_area_report.pdf

⁹ Anita Brauna, "Lack of Trust Disrupts Gas Project", *re:Baltica*, May 16, 2012, available at http://www.rebaltica.lv/en/important/a/710/lack of trust disrupts gas project.html



and—with reconstruction of the cross-border connection, which is another EU PCI—in Estonia as well. While this financial investment is important, it is also essential for the EU to insist on the restructuring of Inčukalns' ownership structure to ensure Gazprom will be unable to block the free flow of gas to consumers according to price signals set by the spot-market at a future Baltic trading hub. The EU should therefore condition its financial support for Inčukalns' modernization and expansion on participation in the facility's ownership and operation to ensure the storage facility will reliably operate on free-market principles.

Estonia: LNG terminal as Cornerstone of Baltic Trading Hub

LNG as the Baltic Game-Changer

Recent advances in technology have facilitated LNG as the quickest way for many countries to diversify their supplies of natural gas. A commercially viable LNG terminal serving all three Baltic states (plus Finland) would ensure a year-round diversified supply of gas, which is the most fundamental element required for emergence of a liquid trading hub. Such diversification of supply would also partially undercut Gazprom's monopolist tactics, even if GIPL fails to materialize and if Inčukalns remains under Gazprom's control. Each Baltic state has at some point consequently sought EU supporting EU support for an LNG terminal of its own.

Lithuania has made the most progress. In 2011, when Lithuania adopted the EU's Third Energy Package, it immediately announced plans for a floating liquid natural gas (LNG) terminal at Klaipėda. Lithuania moved quickly; its floating LNG regasification unit was assessed by Elering's Pöyry report in 2012 as the most advanced¹⁰ of any LNG project in the three states. In December 2012, the outgoing government of Prime Minister Kubilius convinced Lithuania's Parliament to pass a law to protect the future LNG terminal against potential Gazprom dumping by requiring Lithuania's largest gas consumers to procure 25% of their gas from the terminal.¹¹ Gazprom, through its large stake in Lithuania's gas transmission system operator Lietuvos Dujos, has lobbied against the law, arguing (with great irony) that it will "severely restrict and distort competition".¹²

Latvia has sought EU support for its own LNG terminal in Riga. Latvia's main argument has been that its terminal would reduce construction costs compared with a terminal in Lithuania or Estonia, since Riga's proximity to the Inčukalns storage facility obviates the need to build gas storage for the terminal. However, Latvia's Baltic neighbors worry that Gazprom's control of Inčukalns would negate the strategic value of an LNG terminal in Riga. Following her meeting in the summer of 2012 with Estonian President Toomas Hendrik Ilves, Lithuanian President Dalia Grybauskaitė announced that she "agreed with the [Estonian] president that the existence of just one terminal [in Latvia] could be risky, [as] influence could be exerted on this terminal,

¹⁰ Pöyry, "Liberalisation of the Estonian Gas Market", p. 38

^{11 &}quot;Lithuanian Government Fixes Obligation to Buy 25 Percent of Gas from LNG Terminal", 15min.lt, November 2, 2012, available at http://www.15min.lt/en/article/politics/lithuanian-government-fixes-obligation-to-buy-25-percent-of-gas-from-lng-terminal-526-270275

¹² Aleks Tapinsh, "Lithuania's Russia-Backed Utility Complains to EU over Gas Law", $\it CNBC.com$, December 7, 2012, available at

http://www.cnbc.com/id/100289344/Lithuania039s Russianbacked_utility_complains_to_EU_over_gas_law



and it could be re-sold." ¹³ Estonia's top leaders have similarly expressed worry that as long as the Inčukalns gas storage facility remains under Gazprom's control, a regional LNG terminal in Latvia would not enhance Estonia's security of gas supply. Estonian Minister of Economic Development Juhan Parts outlined this reasoning in a letter leaked to the press during summer 2011, in which he expressed particular concern about the lack of transparency in conditions for use of Inčukalns. ¹⁴

The Estonian government has therefore argued that public control of strategic projects like the proposed LNG terminal is crucial to strengthening Estonia's energy security. Accordingly, in May 2012, state-owned companies Elering and the Port of Tallinn announced a joint feasibility study for an LNG terminal at Muuga harbor in Tallinn. Elering, the government-owned electricity transmission company that will soon co-own the Estlink-1 cable between Estonia and Finland, and that is currently constructing a second such connection, Estlink-2, plans to connect the proposed LNG terminal at Muuga with a sub-sea pipeline to Finland known as Balticconnector. In addition to Elering's project at Muuga, two separate consortia are also pursuing Estonian LNG terminals linked to Balticconnector: Sillgas in Sillamäe and Alexela at Paldiski.

The Balticconnector link to Finland is crucial to the commercial viability of any Estonian LNG terminal. Estonia, with its modest natural gas demand of 0.7 bcm, is too small of a market to ensure commercial viability of an LNG terminal no matter where in the country it is located. This remains true even if an Estonian terminal is connected to the markets of Latvia and Lithuania, where demand totals only 4.8bcm. By contrast, when Finland's demand of 5 bcm is added to the total, the combined market of the Baltic states and Finland is 10.5 bcm, some fifteen times larger than the domestic market of Estonia alone. The European Commission, in a report it commissioned by the international consulting company Booz to determine which Baltic state should receive EU financial support for an LNG terminal, concluded that a market of this size *can* support a regional LNG facility.¹⁵

The Booz report recommends Estonia or Finland as the location for the single LNG terminal that should receive European Commission funding as a Project of Common Interest for the entire Baltic region, given the synergies in lower construction costs and expanded gas market resulting from a joint LNG terminal-Balticconnector project. Yet in reality, the Finnish option is less likely to contribute to increasing the region's diversity and security of supply than is an Estonian option for three reasons. First, the Finnish option would feature a major role by Gazprom, which is fighting to retain its monopoly power in the Baltic region. This helps explains why, in February 2013, two key companies in which Gazprom is a leading shareholder, Estonia's Eesti Gaas and Finland's Gasum, announced their "agreement" supporting Finland's port of Inkoo as the "best" location for the LNG terminal. ¹⁶ Estonia's Minister of

¹³ Anita Brauna, "Lack of Trust Disrupts Gas Project", *Baltic Times*, May 23, 2012, available at http://www.baltictimes.com/news/articles/31283/

Andres Reimer, "Parts: Läti gaasiterminal ohustaks Eesti sõltumatust" [Parts: The gas terminal in Latvia would jeopardize the independence of Estonia], *Eesti päevaleht*, July 28, 2011, available at http://www.epl.ee/news/majandus/parts-lati-gaasiterminal-ohustaks-eesti-soltumatust.d?id=51300546

Analysis of Costs and Benefits of Regional Liquefied Natural Gas Solution in the East Baltic Area, Including Proposal for Location and Technical Options under the Baltic Energy Market Interconnection Plan (Milan: Booz & Co., November 2012), pp. 15-16, available at http://ec.europa.eu/energy/infrastructure/doc/20121123 Ing baltic area report.pdf

[&]quot;Gazprom Wants Regional LNG Terminal To Be Built in Finland", *Postimees*, February 20, 2013, available at http://news.postimees.ee/1144104/gazprom-wants-regional-Ing-terminal-to-be-built-in-finland



Communications and Economy Juhan Parts immediately countered that such an agreement is null and void in light of the Estonian government's likely refusal to approve any such cross-border connection, whose developers could apply non-market practices, (such as reserving the capacity of the terminal and of Balticconnector for a single supplier.) Recognizing that the interests of consumers outweigh those of Eesti Gaas shareholders, Minister Parts concluded that "[b]eing independent of the present monopoly gas supplier is an unavoidable prerequisite for Estonia's support" for any LNG terminal.

Second, as the EU's Booz report notes, Finland has contracted with Gazprom for its natural gas supplies through 2025, which would leave no financial incentive for Balticconnector's developers to build a pipeline from an LNG terminal in Finland to Estonia for the next 12 years.

For all these reasons, in the near-term, Estonia provides the most attractive location for a regional LNG terminal that pursues the EU's key goals of diversifying the Baltic states' gas supplies and laying the foundation for market-based trading of natural gas.

Regarding the specific location of an LNG project in Estonia, the EU's Booz report concluded, "The Sillamäe project is the weakest of the three, due to being in a very early stage of development, while the other two already have clear and well-defined projects." The choice is therefore effectively between the latter two options. Differences between the Muuga and Paldiski projects are explained by supporters as follows:

- Muuga's urban location poses a lower environmental threat but a higher safety threat compared with the more remote Paldiski port;
- Muuga is closer to Estonia's existing domestic gas distribution network than the
 Paldiski site, reducing the cost of the pipeline connection to Estonia's national grid; but
- Paldiski is closer to the Finnish port of Inkoo, reducing the length of the future Balticconnector pipeline.

The Muuga project has the additional advantage of being co-developed with Royal Vopak, a 400-year old Dutch company that can integrate an Estonian terminal into its commercially attractive Baltic LNG delivery network operating from Rotterdam.¹⁷

Resisting Outside Political Interference: Ownership structures

Ultimately, the location of the terminal is not crucial to the project's commercial and strategic success, as long as the LNG terminal is connected to a sufficiently large regional market, meets the highest environmental and safety standards, and operates according to market rather than monopolist principles. A considerably more important factor is whether **ownership** structures will ensure the project operates according to market principles. As argued above, Gazprom has secured controlling and/or significant shares of energy companies throughout the Baltic region. These include Eesti Gaas in Estonia, Latvijas Gaze and the gas storage facility at Inčukalns in Latvia, and the Lietuvos Dujos gas company in Lithuania. Gazprom has demonstrated great skill in using its ownership stakes, coupled with powerful local business networks, to shield its monopolistic advantages against the advance of market forces. As the Booz report notes, Gazprom has used these tools to ensure that none of these three nations "has actually imposed"

^{17 &}quot;Multi-Customer, Open Access Regional LNG Terminal", p. 7

¹⁸ For more on this point, see Mart Raamat, "Public Debate on the Baltic LNG Terminal: A Step in the Right Direction", ICDS, available at

http://icds.ee/index.php?id=73&L=1&tx_ttnews[tt_news]=1200&tx_ttnews[backPid]=71&cHash=8966a47a0e



separation between the gas supplier and TSO," which is a central goal of the EU's Third Energy Package.

Some level of Estonian government presence is therefore required to prevent monopolistic tactics (such as dumping cheap gas on the Estonian market or restricting terminal and pipeline operations) that could undermine the commercial attractiveness of an Estonian LNG terminal. Such Estonian government presence might include a "golden share" of ownership in the LNG terminal consortium that could block any business decisions would undermine market principles with regard to operation of the terminal. Another option might be to exercise state authority through the Port of Tallinn's participation in the LNG terminal's operation. Finally, government presence could also take the form of Elering expanding its regulatory responsibilities beyond Estonia's electricity transmission system into the country's internal natural gas transmission network. Estonian Prime Minister Ansip advocated this approach in 2010, noting that "when we speak of an LNG terminal, state control would be guaranteed if it came…via a network operator like Elering ¹⁹

In any case, Estonian government presence should not mean nationalization or day-to-day control of the project's commercial operations; instead the Estonian government needs the ability to block monopolistic tactics that aim to stifle competition. While some European Commission officials may object to any government participation in a regional LNG terminal, the EC as a whole is likely²⁰ to accept the type of state participation described above as essential to ensure that the project provides security and diversity of supply to European consumers at fair prices—which are core goals of the EU's Third Energy Package.²¹

¹⁹ Valitsuse pressikonverentsi stenogramm [Government press conference transcript], November 4, 2010, available at http://valitsus.ee/et/uudised/pressikonverentsid/stenogrammid/20392 .

See e.g. Andreas Jahn, *Implementation of an Entry/Exit Model for the East Baltic Gas Market* (Berlin/Brussels: DG Energy, European Commission, June 2011), available at http://ec.europa.eu/energy/infrastructure/doc/2011_study_east_baltic_gas_market.pdf

^{21 &}quot;Energising Europe: A Real Market with Secure Supply", European Commission press release, 19 September 2007, available at http://europa.eu/rapid/press-release_IP-07-1361_en.htm?locale=en



Conclusion

The primary benefits of spot-market pricing for natural gas are increased security of supply and lower prices. Certainly, lower prices may not be seen immediately, and may emerge only after prolonged negotiations with Gazprom, as has occurred at North Sea trading hubs in recent years. Starry-eyed predictions of a dramatic fall in natural gas prices such as those of one leading Estonian business figure that "if we finish the LNG terminal, the gas price in Estonia will drop 25-30 percent,"22 raise unrealistic expectations that could generate public disappointment with for these projects. In the long run, however, indicators point more strongly towards lower prices as new infrastructure unleashes the power of market forces. As the Pöyry report commissioned by Elering concluded, "[t]he presence of the terminal will put Estonia in a better position to negotiate lower gas prices with Gazprom, which will result in lower gas prices for end-users and allow Estonia to buy higher gas volumes."23 These conclusions were echoed by the Ramboll consulting report commissioned by Balti Gaas, which concluded that "a new LNG terminal would give Estonia and Baltic countries access to world gas markets, and thus to the cheaper gas."24

It is precisely this long-run decrease in price through market forces that is at the heart of the EU's quest for a single European energy market. As the European Commission, working with regional governments, puts in place the physical and regulatory infrastructure required to allow spot prices and gas trading hubs to emerge in the Baltic region, all EU member states will enjoy security of supply and lower prices for natural gas. At this point, the ability of a monopolist to manipulate prices and supplies will fade.

Lithuania, Latvia, and Estonia have a chance to make significant contributions to this EU-wide effort by coordinating their approaches in developing three core infrastructure components: GIPL in Lithuania; an expanded and market-based gas storage facility at Inčukalns in Latvia; and an LNG terminal in Estonia linked to the gas markets of Finland as well as Latvia and Lithuania. In addition, the Baltic republics will need to develop coordinated regulatory and trading structures to ensure this new infrastructure will indeed function according to market principles and facilitate the emergence of gas trading hubs. Once they succeed, Lithuania, Latvia, and Estonia will have finally assured their full integration into Europe's economy, sealing the emergence of a Europe that is whole and free.

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24 "Comparison of LNG Terminals in Paldiski, Muuga, and Inkoo", p. 33

²² Sulev Vedler, "Estonia's Battle for the Baltic LNG Terminal", *Baltic Times*, May 17, 2012, available at http://www.baltictimes.com/news/articles/31270/

^{23 &}quot;Liberalisation of the Estonian Gas Market", p. 46