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The Russian Reality Check on Turkey's Gas Hub Hopes

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On Nov 24, 2015, Turkey shot down a Russian fighter jet after it veered into its airspace for 17 seconds. On December 13, a Russian ship fired warning shots at a Turkish vessel in the Aegean Sea. Bilateral tensions, with overt military dimensions, have seemed to quickly replace the goodwill that characterized relations only a year ago. Over the past few weeks, experts and observers have debated whether this incident will jeopardize deep Turkish-Russian energy cooperation—and whether newfound tensions between Moscow and Ankara will thwart Turkey's ambition to transform itself into an energy hub.

A closer look suggests grounds for both optimism and pessimism. Given the deep interests of both parties in continuing energy cooperation, and the mutual nature of the dependency, tensions over Syria are unlikely to adversely impact energy cooperation in a fundamental way. Turkey, however, is unlikely to realize its vision of an energy hub—not because of Russia, but because of a combination of domestic and other geopolitical factors.

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1. Russia-Turkey Energy Links Will Endure

On Dec 1, 2014, Russian President Vladimir Putin abruptly announced the cancellation of the $40 billion South Stream pipeline via the Black Sea and the Balkans, for which he blamed the EU over its "unconstructive" position (Gurbanov 2015). That same day, Turkish BOTAŞ and Russian Gazprom signed a Memorandum of Understanding for construction of a new offshore gas pipeline named Turkish Stream, with 63 bcm/y capacity to run under the Black Sea to the Turkey–Greece border, where a planned gas hub will then transport Russian gas to Europe. Gazprom desperately needs the Turkish Stream pipeline given its resolve to avoid gas transit through Ukraine and the concurrent goal to retain a strong position in Southeast Europe, its crucial gas bulwark on the continent. For most southeastern European countries, options are few and usually involve high costs to diversify away from Russia, especially if one takes into account that diversification entails additional costly infrastructure (pipelines, compressor stations, LNG terminals). Precisely for these reasons, Gazprom is determined to continue carrying Russian gas to these vulnerable markets. Moreover, by abandoning South Stream, Gazprom now seems set to prioritize Turkey, its second-biggest export market and its only European market with major expansion possibilities over the next decade.

Yet barely a year after Russia stepped up its courtship of Turkey, Putin now warns that, instead of Europe, it is Turkey whose actions will have "serious consequences"– (FT, 2015) consequences that include several trade sanctions regarding the freezing of work on joint ventures and food imports (Reuters, 2015). To show its displeasure and to convey an image of strength upon the increasingly powerful nationalistic fringe of the domestic audience, Putin has sought to take a tough stance toward Turkey. However, it is becoming obvious that he is not interested in escalating tensions further given that measures have not affected the Russian energy exports to Turkey, the core of their economic relationship. In fact, neither the Turkish Stream pipeline nor the Akkuyu nuclear plant featured in the list of economic sanctions against Turkey.

Turkey has some leverage due to the geopolitical moment and its vital position on the Turkish Stream pipeline route; however this does not mean that Gazprom's negotiation position is weaker than Turkey's. BOTAŞ, the state incumbent, desperately needs Russian gas, and Turkish Stream represents a strategic vehicle to bring infrastructure development and boost Turkey's position en route to the European markets, all being prerequisites for a future gas hub. Ankara has had long-term aspirations to establish

itself as a strategic natural gas hub between Central Asia, the Middle East, and Europe. The country's desired goal is to become the main transit hub between the Caspian gas-producing regions and European markets. If this strategy succeeds, Turkey could become a critical player in the so-called Southern Gas Corridor linking the Caspian region and Europe.

As this paper contends, Turkey's actions might backfire, intensifying Russia's Pivot to Asia and jeopardizing Turkey's energy-hub ambitions. In fact, over the long term, it is Russia that has more leverage. The reason is simple: Turkey, which imports 98% of its gas, buys more than 60% from Gazprom. In short, the downing of the Russian jet in Syria amounts to a tragic diplomatic incident, which, nevertheless, is not likely to claim the two countries' deepening energy ties as an additional casualty.

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What does change is the likelihood of Turkish Stream's launching as early as 2016. We can now expect a further delay, already in the offing before the military incident, rather than freezing or ending financing for this project.

To be sure, plans announced in September 2015 to expand the Nord Stream pipeline had already raised rumors over the uncertainty of prospects for the building of Turkish Stream at full capacity and the need to halve the planned capacity from 63 bcm to 32 bcm/y. The revisiting of Turkish Stream's capacity issues also came amid rising tensions due to BOTAŞ' legal action against Gazprom.[1] These developments predate the souring of relations over the downed fighter. Indeed, geopolitical tensions don't erase basic economic fundamentals. Turkey needs to buy Russian gas, and Russia needs to sell it.

Amid the current geopolitical impasse, observers fail to appreciate that in the past decade Turkey's relations with Russia have significantly improved, especially in the energy realm. Such significant energy interdependence means that making a quick 'strategic shift' and bringing an end to Russian-Turkish energy cooperation is nearly impossible. General economic ties between Turkey and Russia are also sizeable and multifaceted: it involves a large trade turnover, many billions worth of investments by Turkish construction companies in Russia and also nuclear energy. In 2010, the Energy Minister Taner Yıldız brokered a deal with Russia for the construction of

1 On Oct 27, BOTAŞ took Gazprom to international arbitration over a price discount it said it was promised on imports of Russian natural gas. Preliminary agreements on the discount were reached in June 2015 but no agreement was signed, with Moscow meanwhile scaling down its vision for the pipeline.

Turkey's first nuclear power plant (USD 20 bln) in the south of Turkey (Daily Sabah Energy 2015). In sum, cooperation has been very fruitful despite opposing views on an array of stinging issues including Crimea, the Armenia genocide, and Syria.

2. Turkey's Gas Hub Ambitions will be Stifled by Other Obstacles

Energy features strongly in Turkish (geo)strategic thinking. By some accounts, it is conceivable that in the long term Turkey will realize its ambitions to develop a gas–trading hub. As this paper shows, however, the country is in a rather weak position as regards both the EU and Russia. An uncompetitive market environment, cheap and highly regulated domestic gas prices, and other regulatory challenges prevent a gas-trading hub from materializing for the foreseeable future. Despite Turkey's slowly improving standing vis–à–vis Moscow, the implication is clear: due to deep-seated obstacles, Turkey's desired goal of expanding its geostrategic importance through energy is still beyond reach.

Obstacle 1: European Rules and Regulations

With its proposed Energy Union in the wake of the Ukraine crisis, the EU has stepped up engagement to support Russia–free gas pipelines (i.e. TANAP and TAP) from the Caspian region. In such a context, Turkey is regarded as an increasingly important route in the transit of gas supplies to Europe from the Caspian region and the Middle East. These changes augur well for Turkey's commercial position. The country gained leverage with Moscow, but also with the EU (Makovsky 2015; Natural Gas Europe 2015). Turkey, however, bargained hard against a straightforward transit role, intending instead to take over the role of a hub, which means that it would buy gas arriving at its borders, consume what it needs, and sell on the balance at profit. The EU objected to this clause, which would allow Turkey to set prices. This was incompatible with the role of a transit country as defined in the Energy Charter Treaty (ECT), which Turkey had ratified. Thus, the stand-off between European preferences (i.e. to have Turkey provide transit service for Central Asian gas en route to the EU gas markets), and Turkey's resolve to buy and re-sell some of those volumes to third parties at a profit to Turkey (which in turn was perceived as a threat to Europe's future energy security), impeded a more fruitful collaboration. Russia, by following its classic divide

et impera tactics, took advantage of the rising mistrust between Brussels and Ankara to drive the latter into its arms. This nurtured debates in the West on whether Turkey's strengthened ties with Russia mean that Ankara is moving in an anti–Western direction. It also prompted a flurry of speculations on whether Ankara will be using its new leverage as a growing 'energy hub' to advance some commercial goals (Grigas and Onar 2015).

In short, there seems to be consensus that Ankara may emerge as a winner in the nascent Southern Gas Corridor, which will route gas from the Caspian Sea through Azerbaijan and Georgia and into Europe through Turkey, thus bypassing Russia. However, due to the EU's regulation, there are serious reasons to doubt that the additional gas that the TANAP pipeline will bring can help Turkey to become an important gas hub.

Obstacle 2: Domestic Shortfalls

There are currently no preconditions to make Turkey a gas hub.

To start with, most Turkish observers display sober assessments on the country's strategic position: there are currently no preconditions to make Turkey a gas hub due to feckless domestic gas regulation (i.e. a weak regulator appointed by the government), lack of competition, state supported subsidies and centralized control over the domestic gas sector. Moreover BOTAŞ makes up 75% of all the gas imports and 80% of domestic gas sales. Besides being the dominant market player, BOTAŞ subsidizes natural gas prices by 15–20%, and resists implementing a cost–based pricing system. As a result, the government would incur significant political costs if it acted more vigorously on enhancing domestic gas market competition and breaking up BOTAŞ' monopoly over the gas transmission network.[2]

Other technical problems include the lack of indigenous gas production, a severe shortage of storage facilities and only two LNG terminals, conditions which, taken together, preclude the creation of a liquid natural gas market. Turkish gas consumption accounted for 51.8 bcm in 2014 and despite a recent economic downturn, is dramatically growing and has tripled in the last 12 years. Gas makes up for 48–49% of the energy mix, more than 60% of which comes from Russia. In fact, Turkey's import portfolio is becoming increasingly lopsided. In terms of long–term contracted

2 This view was confirmed by multiple interviews held by Skalamera with gas executives, officials and informed observers in Ankara and Istanbul on May 22-27, 2015.

volumes, 30 bcm come from Russia, 10 bcm from Iran, 6.6 bcm from Azerbaijan, 4 bcm from Algeria (LNG), and 1.2 bcm from Nigeria (LNG).[3] Azerbaijan and Iran, however, are unreliable producers and are unable to deliver at full capacity—thus their deliveries have been decreasing—putting Turkey somewhat 'on the edge', especially in peak winter months.[4]

Clearly, this puts Turkey in a disadvantageous position. In order to challenge such an outcome, Turkey would have to invest in expensive LNG infrastructure and foster competition. However, due to gas subsidies, weak regulation and BOTAŞ' long-term corporate strategies featuring collusion with the government (as well as its deep entrenchment with Russian Gazprom), Ankara is stuck with pipeline gas and very little underground storage. In reality, Turkey's gas policy is totally to Russia's advantage.[5]

There are a number of reasons why TANAP is a good deal for Turkey.

Given such challenges, many observers indeed welcomed TANAP, the line fed by Azerbaijan's Shah Deniz II that promises to offer sound diversification and a cheaper gas portfolio. Indeed, there are a number of reasons why TANAP is a good deal for Turkey: after BP, Turkish Petroleum Corporation (TPAO) is Shah Deniz II's second-largest shareholder; Shah Deniz gas represents the cheapest source for Turkey compared to Iran or Russia; and BOTAŞ holds a 30 percent share in TANAP, which is a source of revenues.6 Moreover TANAP may carry additional strategic benefit for Ankara because it is the line most desired by the West and because it likely would be Azerbaijan's only outlet for its gas, enhancing Turkey's leverage with both Brussels and Baku.

High–level officials and energy executives in Turkey, however, paint a more nuanced picture. For one, Azeri gas sourced through TANAP will turn out to be more expensive than Russian gas because of TANAP's transmission tariffs. Moreover, Shah Deniz II gas will be more expensive in Turkey (at the offtake point in Eskisehir) than in Europe, where it lands through TAP. In short, Turkey is sacrificing because

3 Turkey is trying to reduce the weight of gas in power generation, given that increasing need for gas from abroad negatively affects Turkey's primary account deficit. Turkey imports 98% of its natural gas. Gas demand has increased dramatically, at a pace as high as 15 %/y. In power generation, the country's total installed capacity was 70,000 megawatts as of March 2015. In 2000 it was only 23,000 megawatts. Turkey has increased its electricity capacity by over 5000 megawatts/year to meet its soaring needs. The government expects that by 2023 the combined power generation capacity will be up to 100.000 megawatts.

4 Storage is very limited, making summer/winter and day/night utilization difficult to balance. In fact, until TANAP's construction is finalized, Botas will be authorized to cut gas from eligible consumers during high-intensity winter months.

5 Erol Memioğlu, Interview by Morena Skalamera, Istanbul, Turkey, May 27, 2015.

6 BP executive, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015

of (national energy company) TPAO's shares in Shah Deniz.[7] TANAP is expected to initially supply 6 bcm/yr to Turkey, with a further 10 bcm/yr crossing Turkey on its way to consumers in Europe. But even with Shah Deniz II coming on-stream in 2018, the additional gas will likely be soaked up by growing demand in Turkey rather than changing the make-up of its gas import mix. In short, although TANAP does have some benefits in terms of the supply diversification needed to thwart dependence on Russian gas imports the fact remains that, as a gas executive suggests, the costs of improving BOTAŞ' pipeline network would have achieved the same result and amounted to a third of the costs of building TANAP. The latter, therefore, cannot be considered a success for Turkey.[8]

Obstacle 3: Neighbors Fraught with Problems: Few Supply Options for Turkey

Moreover, Turkey lacks alternative supply options. To be sure, the country is surrounded by natural resources–rich countries: Azerbaijan, Iran, Iraq and the so–called East Med gas. Put together these countries have much more gas than Russia. However, all of Turkey's options are somehow flawed, mainly due to the turbulent geopolitics of the Middle East and the Caspian region, a fact that plays into Russia's hands.

For instance, while Iran first needs to modernize its sanctions-ridden energy sector, Turkmenistan is fully contracted to China with a 55–bcm–gas pipeline and legal barriers in the Caspian Sea prevent it from reaching Europe by means other than Russia. The latter has always insisted that a settlement of the legal status of the Caspian Sea is required before any pipelines across it are considered. In the past 25 years Moscow has simply blocked the process of defining the legal status of the Caspian Sea to hinder such pipeline developments. Moreover, Turkmenistan's export strategy has, thus far, shown a clear preference for deals with China and, all rhetoric aside, has displayed little interest in gas pipelines directed to the EU.

As for the Azeris, despite their insistence on talking about the future of Turkmen gas, anecdotal evidence seems to suggest that they are not at all eager to transit Turkmen gas through their territory. This strategy may change now that Azerbaijan has fully exhausted its own resources with Shah Deniz II. TANAP is designed as an expandable (scalable) pipeline, and, ideally, in the future more gas can go through the same

7 BOTAŞ executive, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015

8 Gas executive, Interview by Morena Skalamera, Istanbul, Turkey, May 27, 2015

network. Yet, given serious geological challenges, the planned Shah Deniz III phase looks very ambitious at present. This means that if Azerbaijan remains the only source feeding TANAP, it will be Shah Deniz II production that will define upper limits, which are estimated at 25-26 bcm.[9] Israel's Leviathan is another potential supplier. Politically, however, Israeli gas is currently 'gas non grata' in Turkey. Due to the tense regional political situation and disputes with the Iraqi central government the Kurdistan Regional Government (KRG)'s gas doesn't appear to be a viable option in the short term, either.[10]

Obstacle 4: Russian Meddling

In this context, Russia will have a strategic interest in further complicating the geopolitics of the Middle East, which contributes to the challenges in 'feeding' TANAP's second phase and assuring, for instance, that Turkmen gas stays beyond TANAP's reach. This might leave the EU in a situation where, paradoxically, because of the absence of non-Russian resources, the viability and the profitability of the pipeline could be guaranteed only if Gazprom is invited as a partner. In such a case, Moscow may well bid with the EU to supply the pipeline's second phase. Given that Gazprom would not own the pipeline, its bid would comply with the EU Third Energy Package (TEP) regulation. As a result, a pipeline that was designed to carry Russia-free gas to Europe may, for the lack of better options, need to tap into Russian gas to be commercially viable.

In general the gas supply strategy that Turkey is adopting is only rarely successful—it can only work in countries rich in natural resources. It rarely works in countries that lack corporate governance and natural resources. Turkey needs gas–to–gas competition. Only then, perhaps, might gas prices decrease in Turkey. But, at the moment, Ankara's contracts are based on oil indexation, so as oil prices grow so do the costs of Turkey's contracts.[11] Turkey could, in principle, try to change its geopolitically constrained options. This would, however, require opening the Turkish market and 'unbundling' BOTAŞ, the government-controlled national champion.

It is in this context that Vladimir Putin put the Turkish Stream pipeline on the table on December 1, 2014. No binding contract has been signed yet, but ideally Turkish

9 Cenk Pala, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015.

10 Although there are some Turkish companies very successfully producing oil (Genel) there is only now a slight shift to gas. Oil goes first because money means oil - associated gas is too costly and not as easy to produce http://www.genelenergy.com/operations/kurdistan-region-of-iraq.aspx

11 Batu Aksoy, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015.

Stream will consist of 4 lines—each 15.75 bcm—for a total of 63 bcm directly connected to the Turkish grid. The most significant difference, when compared to South Stream, is that it would stop at the Greek–Turkish border. The first line of Turkish Stream was supposed to be built as soon as the end of 2016. The aim of the first line is to replace the 14 bcm of Russian gas that Turkey gets through Ukraine.[12]

Although most Turkish observes insist that the impact of the first line for the Turkish market is marginal, with the 16–bcm first line Gazprom would already enhance its market share in Turkey by 1.15 bcm, and, with the upgrading of Blue stream, by a further 1 bcm. So, talks about merely substituting the Ukraine transit are, simply stated, off the mark. After Turkish Stream is built, Gazprom will most likely try to increase deliveries to Turkey up to 20 bcm. In sum, Russia is crowding non–Russian gas out of Turkey's infrastructure. Russian gas will then soon account for 70% of Turkey's total imports.[13]

Talks about merely substituting the Ukraine transit are, simply stated, off the mark.

The pipeline, moreover, is fully financed by Gazprom and the Russian government. Turkey's BOTAŞ is, therefore, not a partner. This led one observer to remark that, "calling it Turkish Stream is a mere rhetorical courtesy."[14]

Turkish observers also underline the fact that Putin raised the issue of a trading point on the Turkish–Greek border, or, in other words, a Russian hub on Turkey's soil that BOTAŞ would not own.[15] Turkey's own ambitions to set up a physical hub in Ahiboz (50 km from Ankara) seem instead unrealistic. Hubs usually rely on large storages and free competition, neither of which is present. Plus, until at least 2030, Turkey's gas needs are fully covered by long–term contracts. Aside from that, a European model of far-reaching separation of gas supply from transportation services would attract competition, which is why BOTAŞ vehemently opposes it. Therefore, Turkey simply cannot emulate European hubs. Whereas in Europe Gazprom's aim is market share maximization, in Turkey its goal is price maximization (also because it knows that there are no alternatives).[16] This situation makes Turkey a corridor rather than a hub. To be a gas hub a country needs to control the gas. But BOTAŞ does not own the gas.

12 The so-called Trans-Balkan pipeline, which, in view of Turkey's rising gas demands, is not expandable, has technical problems, and has triggered much political controversy.

13 Cenk Pala, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015.

14 Among others BOTAŞ executive, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015.

15 BOTAŞ executive, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015.

16 Batu Aksoy, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015.

A map showing the Russia-Turkey Blue Stream gas pipeline, along with the planned route for the canceled South Stream pipeline. (Gazprom)

Instead, as observers note, it merely rents capacity to Gazprom, BP, and Total, and transfers their gas to consumers, which makes it more of a 'truck driver.'[17]

Price talks between Gazprom and BOTAŞ started at the beginning of 2015. Gazprom asked permission to lay the seabed section for Turkish Stream in exchange for a gas-price discount. The Russians proposed a 10.25% discount,[18] while BOTAŞ responded with a figure of 15%. Yet, while as recently as June of this year BOTAŞ had declared that it would not accept anything less than this figure, in July 2015 the Turkish Energy Ministry verbally conceded to the Russian proposal of 10.25%. Nothing was signed and discussions were then complicated by Russia's launch of military action in Syria, which triggered Turkish President Recep Tayyip Erdogan's suggestion that Turkey may diversify away from Russian gas and halt the construction of ongoing energy projects. But despite current frictions, breaking Turkish dependence on Gazprom's energy supplies is nearly impossible—there are simply no alternatives in the foreseeable future. As a result, Turkey needs Russian gas imports more than Gazprom needs the Turkish gas market.

In fact, Erdogan's suggestions that Turkish Stream could be postponed are mainly geared to to a domestic audience that expects a tough stance on Russia. At the same time, painfully aware of the deep dependence on Russian gas, Erdogan has recently asked Gazprom to increase gas supplies through the existing Blue Stream pipeline. In short, revamping nationalism at home might cost Erdogan increased delivery of Russian

17 Bülent Demircioğlu, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015

18 In a recent interview, Komlev said that "The oil price plunge has had an impact on the negotiation process with buyers, making Gazprom reluctant to grant any discounts at a time when the price of natural gas is expected to fall in line with the price of oil" Sabadus, A. Editor, Turkish Energy Hub Daily, ICIS, Interview: Oil indexation is here for long term—Gazprom pricing expert.

gas via the Blue Stream pipeline, which, unlike the Turkish Stream, is not in the cross hairs. The implication is straightforward: energy resource-poor Turkey simply cannot do without Russian gas. As a gas executive resignedly summed it up, "[w]e are asking for a discount but at the end of the day, BOTAŞ will sign almost anything. Turkey cannot say no to Russia. Russia will continue to have a huge influence on Turkey."[19]

3. Turkey's Hub: a lot of Hubbub...

Experts have ascribed to Turkey an outsized role in determining the future of European energy security based on its pivotal geographical position along the Southern Gas corridor. However, the paper finds that Turkey may not emerge as the inevitable winner in the new geopolitics of Eurasian gas.

By contrast, a number of important obstacles—such as the fact that neither TANAP nor Turkish Stream are good deals, bad domestic market regulation and governance, and BOTAŞ's reluctance toward restructuring the company—raise serious questions about the viability of Turkey's aspirations to become a gas hub. The uncertain energy potential and actual production levels in the Caspian countries furthermore challenge Turkey's energy strategy. Russia, in turn, understands that Turkey's alternative supply options are high risk while the country is in desperate need for reliable and affordable sources of gas. Russia uses this situation to enhance its presence in Turkey's large gas market and make Ankara a route for its gas to Europe. Turkey's aspirations as a strategic natural gas hub and its purported new role in Eurasian energy geopolitics can, therefore, be called into significant doubt.

19 Turkish gas executive, Interview by Morena Skalamera, Istanbul, Turkey, May 27, 2015

References

Daily Sabah Energy (2015, April 14). "Turkey launches construction of first nuclear power plant," *Akkuyu in Mersin*.

Financial Times. (2015, November 24). "Turkey shoots down Russian fighter jet on Syrian border."

Grigas, A. and Fisher Onar, N. (2015, May 13). "From Russia With Love: The Moscow–Ankara Energy Affair." *Forbes*.

Gurbanov, I. (2015, April 16). "Repercussions of Turkish Stream for the Southern Gas Corridor: Russia's New Gas Strategy." *Natural Gas Europe*.

Makovsky, A. (2015, May 6). "Turkey's Growing Energy Ties with Moscow." Center for American Progress.

Natural Gas Europe. (2015, April 19). "As Russia weakens, Turkey grows assertive."

Reuters, (2015, December 1). "Exclusive: Russia may freeze Turkish Stream gas project - Gazprom sources."

List of interviewees

Batu Aksoy, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015

BP executive, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015

BOTAŞ executive, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015

Bülent Demircioğlu, Interview by Morena Skalamera, Istanbul, Turkey, May 26, 2015

Cenk Pala, Interview by Morena Skalamera, Ankara, Turkey, May 25, 2015

Erol Memioğlu, Interview by Morena Skalamera, Istanbul, Turkey, May 27, 2015

Turkish gas executive, Interview by Morena Skalamera, Istanbul, Turkey, May 27, 2015

About the Geopolitics of Energy Project

The Geopolitics of Energy Project explores the intersection of energy, security, and international politics. The project, launched in 2011, aims to improve our understanding of how energy demand and supply shape international politics—and vice versa. It also endeavors to inform policymakers and students about major challenges to global energy security and, where possible, to propose new ways of thinking about and addressing these issues. The project focuses both on conventional and alternative energies, as both will influence and be influenced by geopolitical realities.

Cover Photo: Italian Prime Minister Silvio Berlusconi, left, Russian President Vladimir Putin and Turkish Prime Minister Recep Tayyip Erdogan, right, wear helmets at the Durusu metering station, near the northern Turkish city of Samsun, Thursday, Nov. 17, 2005, during the inauguration ceremony of the Blue Stream pipeline, the world's deepest undersea pipeline. (Reuters/AP)

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