

NATURAL GAS IN TURKEY:TODAY&TOMORROW

Though it is a rapidly growing emerging market, Turkey lacks indigenous reserves of the world's two crucial fossil fuel sources, namely oil and natural gas. As a result, the country is highly dependent on imports to meet its demand (the country has 98 percent import dependency in natural gas and 92 percent in oil), and energy security has been a chief component of Turkey's energy strategy for the past two decades. Natural gas, in particular, has remained at the forefront of Ankara's energy policy due to its rapid increase in Turkey's energy mix and the rigid and long-term nature of natural gas supply contracts. Over the past couple of decades in Eurasia and the Middle East, it has become virtually impossible to separate the conversation about natural gas from geopolitical and foreign policy discussions. This is definitely true of Turkey.

Despite natural gas's significance in today's economy, Turkey's experience with it is a relatively new affair. Turkey's first gas imports came from Soyuzgas in the USSR in 1986, and consumption began in 1987. The country's natural gas demand has steadily increased ever since, with natural gas overtaking oil as the country's single most important fuel source, representing 35 percent of the country's primary energy mix. Turkey's own "rush to gas" occurred in the past decade, as the country's demand tripled from 15 billion cubic meters (bcm) annually in 2000 to 47.6 bcm in 2013, registering the second biggest increase in demand in the world behind China.

Turkey consumed around 50 bcm of natural gas in 2015, still experiencing demand growth despite slowing economic growth and a host of geopolitical risks affecting Turkey's neighborhood. In fact, Turkey is expected to be among the International Energy Agency (IEA) member countries with the fastest energy demand growth in the medium- and long-term as demand rise is 10% CAGR from 2002-2015. It is also important to note that, in addition to its high share in Turkey's total energy mix, natural gas plays a particularly crucial role in the country's economy, with electricity generation and industry representing a big portion of the country's total natural gas demand.

Considering these internal trends and indicators, and barring any game-changing indigenous natural gas discoveries, Ankara's reliance on imported natural gas will only increase in the future. What makes matters worse from an energy security standpoint is Turkey's asymmetric reliance on a single supplier, Russia. In 2014, Russia's natural gas exports to Turkey reached 26.9 bcm, representing 54.76 percent of Turkey's total natural gas imports (49.2 bcm). Russia was followed by Iran (18.13 percent), Azerbaijan (12.33 percent), Algeria (8.48 percent via LNG), Nigeria (2.8 percent via LNG), and spot LNG (3.43 percent)

The concerns over Turkey's dependence on Moscow for natural gas imports, and its constraining impact on Ankara's foreign policy and geopolitical strategy, were put in the spotlight recently due to increased tensions between the two countries after Russia stepped up its involvement in Syria. Russia's belligerence in Turkey's neighborhood over the past several years – including the invasion of Georgia in 2008, the annexation of Crimea in 2014, and now the intervention in the Syria crisis – have highlighted the importance of supply security, in particular the diversification of energy suppliers and supply routes, for Turkish national security and foreign policy.

When it comes to natural gas, Turkey's decades-long desire to become a regional energy hub and Ankara's tendency to play up its favorable geostrategic position (Turkey is located in close proximity to 70 percent of the world's conventional oil and gas reserves) adds another dimension that goes beyond the economic fundamentals of supply and demand. Conveniently located between the world's second-largest natural gas consumer after the US, Europe, and major natural gas reserves in Central Asia, the Middle East, and Eastern Mediterranean, Turkey does have the potential to significantly benefit in both economic and political terms as a transit country, connecting natural gas producers to natural gas consumers through a network of pipelines on its territory. Ankara's strong historical ties and relationship with the EU have been crucial components of Turkey's natural gas supply diversification efforts and transit ambitions.

These factors were behind Turkey's involvement in the European Commission's Southern Gas Corridor (SGC) project, launched in 2008. Aiming to bring natural gas resources from the Caspian Basin and the Middle East to Europe, the project was initiated as a way for the EU to diversify its natural gas supply portfolio in response to the Russia-Ukraine gas supply dispute of 2006. However, plans for the Nabucco Pipeline, considered a key piece of the SGC, failed to materialize despite strong political support from the EU and the

US. Today, Nabucco serves as a note of caution in the heated debate pitting geopolitical desirability against commercial viability when it comes to such large-scale, expensive energy infrastructure projects.

It is true that geopolitical dimensions and political considerations have often distracted analysts from discussing the actual market dynamics or financial realities of different projects. This is a dangerous distraction that in recent years particularly dominated the natural gas industry in Europe and the surrounding region. The right balance would be somewhere in between assessing projects based on the principle of commercial viability and realizing that energy resources, especially natural gas, are very prone being exploited as a means to strengthen countries' political and economic preeminence in the region.

Energy's Role in a Fast-Changing Region

Turkey's natural gas policy over the past couple of years can be defined as proactive, ambitious, pragmatic, and at times opportunistic. Realizing that the Nabucco project had become a mere pipe dream due to various commercial and financial issues, Ankara teamed up with the government of Azerbaijan to propose a new infrastructure project, the Trans-Anatolian Pipeline (TANAP). Financed by Azerbaijan's sovereign wealth fund, TANAP is designed to carry the natural gas that will be produced during the second stage of Azerbaijan's Shah Deniz offshore field. It is important to note that this move by Ankara and Baku almost entirely reshaped the planned configuration of the SGC, as TANAP became an integral part of it. In December 2013, Shah Deniz shareholders reached a final investment decision on the second phase of the field and selected the Trans-Adriatic Pipeline (TAP), which is to connect TANAP with Italy via Greece and Albania.

The same kind of pragmatism manifested itself in Turkey's energy dealings with Russia. The energy relations between the two countries are often described as a good example of the compartmentalization of different aspects of bilateral relations in order to obtain cumulative gains. Despite strong disagreements on many issues in the recent past, including over Georgia, Ukraine, and Armenia, Moscow and Ankara have not only maintained a strong relationship in the field of energy, they managed to expand it even further with new deals such as the 20 billion dollar agreement signed in 2010 for Rosatom to build Turkey's first nuclear power plant in Akkuyu, Mersin. Although this "Turco-Russian rapprochement" was put to the test in recent months as a result of the Syrian crisis, it is true that the countries have become economically interdependent in a way that would make any dramatic derailment in the relationship a very costly

affair for both sides. The downing of a Russian jet by Turkish F-16s on November 24 and the ensuing crisis demonstrates the risk of potential spillover from the volatile geopolitical backdrop in Turkey's region. Although it is clear that the heightened rhetoric in the immediate aftermath of the incident is not sustainable, early signs indicate it will be difficult for Ankara and Moscow to go back to the glory days of rapprochement that dominated the past decade in their bilateral relations.

Its pragmatism and eagerness to close deals also proved to be a liability for Ankara at times. The nuclear agreement with Rosatom was widely criticized in Turkey both for environmental and security reasons and for further increasing Turkey's dependence on Russia. It is indeed true that it was this overdependence, among other things, that resulted in Turkey's muted response to Russia's illegal annexation of Crimea in March 2014, drawing the ire of Ankara's Western allies. Today, Turkey remains the only NATO country that did not join the sanctions regime against Russia. In fact, Turkish Economy Minister Nihat Zeybekçi even said in August 2015 that he was "very glad about the new developments, as Turkey will benefit from what has been going on in Russia," referring to the opportunities for Turkish exports due to Western sanctions.

The discovery of a significant amount of natural gas in the Eastern Mediterranean reignited debates about the relationship between regional geopolitics and energy. Notably, the finds had prompted many observers to suggest that energy could be the game-changer to solve long-standing conflicts in the region.

The long-stalemated conflict in Cyprus and Turkey's uneasy relationship with Israel since the Mavi Marmara incident in 2010 present daunting political roadblocks to any Turkish involvement in the offshore discoveries in the region. However, despite all the rhetoric about geopolitics, it was instead commercial issues in Cyprus, and domestic policy and regulatory issues in Israel that proved to be the biggest impediments to the development of natural gas. In fact, Ankara's resilient economic relationship with Israel gave reason to be optimistic about future cooperation in the field of energy despite bilateral relations reaching a historic low on a political level. The trade between Israel and Turkey in 2014 increased by 11.5 percent compared to 2013, as bilateral trade reached an all-time high at 5.44 billion dollars, despite the ongoing political crisis and increasingly hostile anti-Israel rhetoric in Turkey. Moreover, Turkish companies Zorlu Group and Turcas were among those bidding for the tender to construct a pipeline with an annual capacity of 7 to 10 bcm, transporting natural gas from the giant Leviathan field to the Turkish mainland. Although a scenario involving

Turkish companies' participation in the short term looks unlikely in the current conjuncture due to political obstacles, such examples serve to show Turkey's pragmatic approach in the energy field.

Finally, Iraq recently emerged as a significant potential oil and gas supplier that could offer Turkey an alternative to diversify away from Russian supply. The potential of Iraq's energy sector was of such magnitude that the IEA, in its special Iraq Energy Outlook report in 2012, stated that the country "can make a major contribution to the stability and security of global energy markets."

Turkey's dealings with the Kurdistan Regional Government (KRG) of Iraq are another case in point for Ankara's recent foreign policy and natural gas diplomacy approach. With an estimated range of three to six trillion cubic meters (tcm) of natural gas reserves, the KRG has the potential to play an important role in Turkey's efforts to become an energy transit country.

What makes the KRG a particularly interesting story is the close economic and energy relationship between Ankara and Erbil over the past several years. In a turn of events that confounded many outside observers due to Turkey's decades-old conflict with its own Kurdish population, Turkey quickly became one of Erbil's most important political and economic partners and an outlet for the Iraqi Kurdistan's energy exports to the world, despite strong objections from Baghdad and Washington. The tensions between Ankara and the Iraqi government of Nouri al-Maliki had come to such a point that then-Foreign Minister Ahmet Davutoğlu's plane was not given permission to land in Erbil's airport by the central-government-run Iraqi civil aviation authority. Meanwhile, Turkey and the KRG signed an agreement in November 2013 that envisioned exports of four bcm of natural gas annually by 2017, 10 bcm by 2020, and 20 bcm thereafter. Turkish-Iraqi bilateral relations have improved since then in the Haider al-Abadi government. Unfortunately, the emergence of the Islamic State of Iraq and the Levant (ISIL) in Iraq dramatically transformed the geopolitical dynamics in the region, posing significant security challenges to further investment. However Ankara's stance in any event demonstrates the Turkish government's willingness and desire to push forward to close energy deals.

What Does the Future Hold for Turkey's Natural Gas Strategy?

In light of Turkey's domestic market realities and its track record over the past couple of years, it is clear that supply diversity will be a top priority in Turkey's quest to enhance its energy security. Despite Turkey's recent efforts, some of which have had significant negative consequences for the country's security

and foreign policy, Ankara still finds itself in a position of high vulnerability in terms of energy security.

The Ministry of Energy and Natural Resources, in its five-year strategic plan for 2015-19, recognizes the country's considerable import dependency in oil and natural gas, and names diversification of import countries and routes as a major priority in ensuring the security of energy supply. This goes hand in hand with Ankara's desire to integrate with regional energy markets and become a more powerful regional actor in the energy industry.

In short, the risk related to natural gas supply security is clear, and the government is trying to tackle this on both the domestic and foreign fronts. Domestically, the Ministry's strategic plan aims to reduce the share of natural gas in electricity generation from 44 percent to 38 percent by the end of 2019. Externally, it limits the dependency on a single country for imports of natural gas to 50 percent by 2019, a figure that is still dangerously high. Coupled with Turkey's desire to become a natural gas hub, these targets make for one ambitious list and unfortunately, the road ahead is a difficult one.

Domestic Market Challenges

Turkey's longstanding desire to become a regional natural gas hub faces both internal and external challenges. First, the country needs to implement a series of domestic market reforms in order to deepen its natural gas markets and establish a properly functioning legal and regulatory framework. Lack of competition and transparency in the Turkish domestic market, coupled with infrastructure issues (such as transmission bottlenecks and inadequate storage capacity) are main hurdles that need to be overcome. Finally, BOTAŞ's monopoly needs to be broken up. There are no immediate solutions to these problems and no easy ways to establish the market conditions necessary for Turkey to become an energy hub or a reliable transit country.

Some positive steps have been taken in the right direction over the past decade. The establishment of the independent Energy Market Regulatory Board (EMRB) in 2001, and the Natural Gas Market Law (NGML) 4646 in the same year, marked an important start. Unfortunately, the liberalization process ever since has been painfully slow. The initial law had aimed at reducing BOTAŞ's share of imports to 20 percent of the country's total consumption, but as of 2015 the figure is at 80 percent. There are also plans to increase Turkey's natural gas storage capacity from the current meager level of around three bcm to five bcm by 2019. The current storage capacity merely represents around 5.5 percent of

total consumption. Realizing that even this upgraded capacity would be a drop in the bucket, Turkey's Economy Ministry announced it would offer up to 10 billion dollars for a new gas storage facility to be built on the Mediterranean coast.

The draft law amending the 2001 NGML was submitted to Parliament in 2013 and is expected to help transform the sector into a more competitive, transparent, and financially stable one. It includes provisions limiting BOTAŞ's market share to 50 percent, and placing a 20 percent cap on the amount of natural gas that can be sold by a single wholesale company. The draft law also envisions the unbundling of BOTAŞ into three entities, in charge of transportation, LNG and storage operations, and imports, respectively. It also aims to increase natural gas storage capacity to 10 percent of consumption by 2019. Finally, the country is taking steps to improve its transmission infrastructure by building new high-pressure compression stations. The Erzurum station, completed in 2014, is the country's ninth such facility, and there are also ongoing plans to improve the capacity of Hanak, Sivas, and Doğubayazıt compressor stations. The lack of adequate transmission infrastructure is especially problematic in the eastern parts of the country, as Ankara had to pay fees in the past for the contracted gas that it failed to take from Azerbaijan and Iran. While these projects demonstrate that Turkey's plan to enhance its profile as a prominent regional natural gas transit country is certainly not a pipe dream, it will take some time before the country can develop the necessary domestic market conditions needed to achieve the goal of an energy hub.

External Challenges

The next obvious question is then the following: Where can Turkey turn to meet its increasing demand for gas? A cursory analysis would suggest that the external factors and developments over the past few years might have favored Ankara. The price of oil is at a record low (especially compared to the peak it experienced in 2008), providing a boom for import-dependent countries such as Turkey. Similarly, the discovery of new large natural gas fields in Turkey's neighborhood, including places like Israel, Cyprus, and Egypt, as well as the possibility of increasing supply from current providers such as Azerbaijan and Iran (though Russia would also be included on this list), means Ankara might soon have a multitude of options in terms of supplier and supply route diversification. Finally, even some geopolitical developments (such as Russia's invasion of Crimea) that further increased the geopolitical risk premium in the region could have potential silver linings for Turkey. As Russia's move sparked fears of supply crises in Europe similar to those of 2006 and 2009, it highlighted the concerns about security of the European energy supply and increased the

profile of alternative supply routes such as the SGC.

Unfortunately, almost all of these supply route options face various challenges. Some have to do with geopolitical reasons; others face financial, economic, or logistical issues.

Where Would the Additional Gas Come From?

Azerbaijan is the first option that comes to mind. Azerbaijan currently supplies around six bcm annually to Turkey via the South Caucasus Pipeline. With its reserves at 1.2 tcm, the country is on its way to increasing its profile as a natural gas provider to Turkey and Europe. With the construction of the TANAP pipeline, Azerbaijan is expected to start exporting an additional six bcm annually to Turkey at the end of 2018. TANAP is being built so that it can be upgraded to supply 23 bcm by 2023, and 31 bcm by 2026 from Azerbaijan (either from the later stages of Shah Deniz or Azerbaijan's natural gas fields such as Absheron or Umit-Babek). However, such plans will have to wait until at least 2023 when TANAP can allow for additional supply; given the delays that were experienced in the run-up to the Shah Deniz II final investment decision in December 2013, and the new low oil price environment, more delays might affect later stages of the project.

With its huge natural gas reserves, estimated at 34 tcm, Iran could potentially be a true game-changer for the natural gas industry. Although the nuclear deal reached between the P5+1 countries and Tehran in July 2015 is a promising first step in opening Iran's vast reserves to foreign investment, many obstacles need to be overcome before Turkey's natural gas imports from Iran could be significantly increased from the current level of around nine bcm annually. The pre-sanctions contracting system used buy-back contracts whereby foreign companies conducted exploration and development without rights to the actual fields. Tehran is now working on a new contract regime in order to attract foreign investment. There are also ongoing commercial disputes between Ankara and Tehran over the price of natural gas. Turkey on average is paying around 487 dollars per each 1,000 cubic meter of Iranian gas, a price that is significantly higher than that for Russian gas (418 dollars per 1,000 cubic meters) or Azeri gas (340 dollars per 1,000 cubic meters). Finally, Turkey's current infrastructure does not allow for significant additional piped natural gas from Iran, so it would have to go through TANAP pipeline.

Moscow's plans to increase Russian supply to Turkey and potentially Europe through a new pipeline underneath the Black Sea have been one of the most

hotly debated topics of 2015. Dubbed “TurkStream,” the first phase of the project will carry 15.75 bcm per year for Turkey’s consumption. Initially the project had envisioned four strings of pipeline with a combined capacity of 63 bcm, part of which would be destined for European markets via Greece. Despite all the brouhaha about the pipeline project that replaced Gazprom’s initial South Stream proposal, which was supposed to take the Russian gas directly to Bulgaria, instead of Turkey), significant setbacks provided a reality check on the pipeline’s feasibility.

Question marks have been raised about Moscow’s plans to double the capacity of the Nord Stream pipeline that carries Russian natural gas to Germany underneath the North Sea, given both financial constraints and potential regulatory issues in accessing the European market. The negotiations for the pipeline were frozen as of September 2015, and Gazprom CEO Alexei Miller announced in October that the pipeline’s capacity would be reduced by half. Also, the attractiveness of the TurkStream for Europe is limited since the EU’s main goal is supply diversification. Despite the successful track record in compartmentalizing different aspects of bilateral relations, geopolitical challenges in the region such as Syria and Russia’s growing role there (which raised awareness of Turkish over-dependence on Russia for its natural gas imports) could hinder potential increases in Russian supply.

The Eastern Mediterranean region also recently emerged as a potential major supplier of natural gas in Turkey’s region after significant discoveries were made offshore from Cyprus and Israel over the past five years. However, the commercial challenges and domestic policy and regulatory issues have affected the development of the fields and the export capacity. Additionally, the political obstacles in Cyprus and the deterioration of bilateral relations with Israel make exports from the region to Turkey unlikely in the short term.

Turkmenistan, with its massive estimated reserves of 17.5 tcm, could also be an important potential supplier of natural gas for Turkey. Turkmenistan has been a priority for Turkey’s energy policy, as the idea of transporting Turkmen gas via a Trans-Caspian pipeline to Turkey and Europe goes back to the early 1990s. Despite political support from the EU and the US, the plans never reached a mature stage due to disagreement among the Caspian littoral states on the delimitation of the Caspian Sea.

Turkey’s Natural Gas Strategy Going Forward

Turkey’s natural gas strategy has correctly identified its shortcomings, but there

usually is a gap between targets and actual policies. This has weakened Turkey's hand in its quest to increase energy security. Turkey's overreliance on Russia for gas supply has, in short, restricted its ability to conduct foreign policy. There are challenges hampering Turkey's efforts toward further supply diversity but they are certainly not insurmountable. Ankara is quickly becoming a more adept natural gas consumer and negotiator. It is clear that diversity of suppliers is and will remain crucial, therefore energy diplomacy and foreign policy will continue to be at the forefront of Turkey's natural gas strategy. But a proactive and pragmatist approach in energy policy can be a strength only if it is balanced with a more cool-headed and sustainable foreign policy approach. It is also very important to be realistic in targets and policy goals. The concept of Turkey as a natural gas hub might still be in the cards, but only in the medium- and long-term. Rhetoric and geopolitical ambitions can be self-defeating in that respect, as the natural gas sector tends to be dominated by grandiose infrastructure projects and ambitious themes that may not come to fruition. It is important to consider actual market mechanisms, financial and economic considerations, and basic supply-demand fundamentals when assessing new projects and planning for the future.