Proceedings of the Chapman University Conference on:
The Geopolitical Implications of the Southern Gas Corridor
May 17, 2014

Edited by
James J. Coyle, Ph.D.
**Introduction**

The success of European allies, who are free to support the interests of the United States, is a vital interest of the United States. Article V of the North Atlantic Treaty is evidence of the importance the United States places on Europe. NATO members today, however, are becoming dependent on Russia as a source for energy. Any effort to break this dependency impacts America’s ability to project power and influence around the world.

The Russian Federation’s annexation of the Crimea, and more recent destabilization of Eastern Ukraine, has refocused Europe on its dependence on the Ukrainian transit corridor for Russian natural gas. Disruptions of this vital pipeline would deprive Europe of approximately 25% of the gas it consumes (a number estimated to go higher in the years to come as Europe phases out nuclear and other hydrocarbon sources of energy). Until 2011-2012, approximately 80% of all Russian natural gas exports to Europe passed through Ukraine. In that year, however, Russia opened the Nord Stream pipeline under the Baltic Sea and diverted some of the gas to the new route. Today, only about 50% of Russian gas exports transit Ukraine.

Under these circumstances, the possible disruption of the Ukrainian pipelines, especially in winter, could have catastrophic consequences for Europe. Russia has proposed to build an alternative bypass pipeline, South Stream, to run under the Black Sea directly from Russian territory to the European Union. Despite the fact that seven members of the European Community (and one candidate, Serbia) have signed bilateral treaties with Russia to build the line, however, The EC has not been in a hurry to endorse the project. Memories are strong of the Russian delivery cutoffs in 2006 and 2009. The EC would prefer a pipeline whose gas is not under the Kremlin’s direct control.

To that end, the EC originally endorsed a proposed 31 billion cubic meter (bcm) per annum pipeline called Nabucco. This pipeline was designed to run from Baku, Azerbaijan to Baumbarten, Austria; it would have provided Europe with approximately 5% of its energy needs. The Republic of Azerbaijan pledged 10 bcm of gas to the line, and called on other countries to provide the remaining 21 bcm needed to fill the pipe. When no other energy sources came forward, Nabucco was abandoned. Instead, Azerbaijan and Turkey teamed up to propose the Trans-Anatolian Pipeline (TANAP). It is designed to only carry half the quantity of Nabucco, 16 bcm per year, but Azerbaijan has pledged to provide all the gas needed to fill the pipeline. TANAP is planned to join with the Trans Adriatic Pipeline (TAP) which will deliver a portion of the gas to Greece and Italy. These two lines together are referred to as the Southern Energy Corridor, or the Southern Gas Corridor.

On May 17, 2014, Chapman University hosted a conference at the University of Southern California on the Southern Energy Corridor. The conference brought together national and international experts to discuss the status of the pipelines, and their meaning to Europe and the United States. What follows is a summary of the panel presentations.
Part I

The View From Business
Chapter One

TANAP: Importance for Energy Security

By

Magsud Mammadov

The European Energy Market

Europe is the largest, per capita consumer of energy in the world. The percentage of this energy that is derived from natural gas is expected to rise over the next two decades, from 24% in 2012 to 30% in 2030. One of the reasons for the increased reliance on natural gas is the decreasing support for nuclear power, following the 2011 Fukushima Daiichi nuclear disaster in Japan. In response to this radioactive release, Germany has decided to close all of its nuclear power plants by 2020.

Specifically, in 2012, European domestic production of natural gas was 202 billion cubic meters (bcm) per year. Traditionally, this gas came primarily from the United Kingdom (UK), Netherlands and Norway. Recently, however, the UK became a net importer of gas. By 2030, natural gas production from all domestic sources will decline to only 155 bcm per year.

By contrast, consumption is expected to jump during this time period from 562 bcm in 2012 to 775 bcm in 2030. This means the need for imported gas will increase from 360 bcm to 625 bcm. The European consumer will become increasingly dependent on imports to fill the shortfall, from 64% of the total consumed to 80%.

The sources of these imports into the European Union (EU) vary. The second largest exporter is Norway, at 30%. (Norway may be a part of Europe, but it is not a member of the EU.) After that comes Algeria (13%), Qatar (8%), Nigeria (3.1%), Libya (1%), Egypt (0.5%) and Trinidad & Tobago (0.1%). The largest supplier by far, however, is Russia (37.57%).

The Southern Gas Corridor

While the demand for natural is increasing, bans on exploring for new gas sources are becoming more and more common. Both France and Poland have banned shale gas exploration. At the same time that new sources are being reduced, however, Europe has become concerned about the reliability of Russia as a supplier. In 2006 and 2009, the Russian state-owned gas company Gazprom temporarily halted European gas shipments through Ukraine. The EU has examined a number of alternative energy sources: liquefied natural gas (LNG), or pipeline gas from North Africa or the Caspian.

LNG could be imported from North Africa, West Africa or North America. To meet the European need, however, all of these options would require huge investment in liquefaction plants, regasification plants, and LNG transport ships.

The United States will have the ability to export up to 10 bcm by 2020, and 50 bcm by 2030. Current North American liquefaction plants are located on the Pacific Coast, however, and it makes
more economic sense to ship the LNG to the Asian market. Sales margins are lower and shipping costs are higher in Europe.

It would appear that the best option for European diversification is the Caspian. The Shah Deniz II Consortium, a group of companies producing natural gas off the coast of Azerbaijan, has proposed a pipeline route to carry gas from the Caspian to Europe. This is the Southern Gas Corridor, which will combine two proposed pipelines: the Trans Anatolian Pipeline (TANAP) that will transverse Turkey, and the Trans Adriatic Pipeline (TAP) that will pass through Greece and Albania en route to its final destination, Italy.

TANAP will cost approximately $12 billion to build, and will stretch over 1,805 kilometers. It is being designed to carry 16 bcm per year, of which 6 bcm will be shipped to Turkey and 10 bcm will continue on to Europe. Plans call for the Turkish deliveries to begin in 2018, and deliveries to Europe in 2019. The pipeline can be expanded to carry 24 bcm by 2023, and 31 bcm by 2026. Its shareholders include the State Oil Corporation of the Azerbaijan Republic (SOCAR-68%), Turkey’s Petroleum Pipeline Corporation (BOTAS-20%), and British Petroleum (BP-12%).

TANAP will provide a number of benefits to transit and consumer countries. It will represent the largest single investment in the Republic of Georgia, and in Albania. The pipeline would invest $8 billion in Turkey, helping that country to become an energy hub. TANAP will also provide an energy superhighway that countries on the eastern shore of the Caspian, such as Turkmenistan, can use to market its natural gas.

Once TANAP is connected to TAP, Italy will gain a new terminal, and both Greece and Albania will have interconnectors; all three would have the capability of becoming transit points as the volume of gas shipments increase. Investment in the two pipelines will create 200,000 new jobs, including 10,000 Italian jobs for the life of the terminal.

There is also a diplomatic aspect to the Southern Energy Corridor. This pipeline network will represent a physical connection bringing together the seven countries along its route. This may lead to future collaboration in other fields.
Chapter Two

Fluxys, the Southern Corridor, and the European Gas Market

Rudy Van Beurden

The European Gas Market

The European Union (EU) has a goal to replace hydrocarbon production with renewable resources (at least 20% by 2020).\(^1\) Renewables are highly subsidized, but there are a number of issues, such as growing opposition to visual pollution (windmills), and the low rate of return on investment caused by European regulation of the energy industry. Still, the European appetite for energy continues to grow. When the need for increased energy is combined with the EU’s diminishing production of indigenous natural gas, it means Europe will have to increase imports on Liquid Natural Gas (LNG) from its Northwest, and pipeline gas from the East and South. Fluxys estimates it will take 40bcm of gas imports to make up the shortfall.

According to Cedigaz, the international association for natural gas, as of 2013 Europe only had proven natural gas reserves of 4,809 bcm. This compares to 48,810 bcm for Russia, 33,780 for Iran, 25,069 bcm in Qatar, and 15,829 bcm for the non-Russian members of the Commonwealth of Independent States. By contrast, the North American continent had 11,160 bcm—almost three times as much as Europe.

The amount of gas being purchased, and its price, is the result of some intricate dynamics. In the United States, there is a high-demand for natural gas as industry has shifted to gas-fired power production. This demand is being met by the shale gas boom, freeing up massive quantities of coal for export. In Asia, as well, there is a high-demand for natural gas as countries (especially Japan) seek to displace nuclear power generation. Asia is competing with South America to attract LNG supplies. For the moment, Europe is defying this trend as it seeks to displace hydrocarbons from its energy mix. It functions to balance the market in LNG, as it reloads the LNG it receives to Asia and South America.

In the long term, the International Energy Agency (IEA) predicts gas demand will increase worldwide by 1.6% from 2010-2035.\(^3\) Despite all its efforts at conservation, however, European demand will only decrease by 0.1%.\(^4\) Because of the decrease in European production, however, the result is a net increase in imports of oil and gas, from 60% in 2010 to over 80% in 2035.\(^5\) In 2012, Europe had to import 263 bcm; this figure is estimated to rise to 330 bcm by 2035.

---


\(^2\) Cedigaz. Natural Gas in the World 2013. \(\text{www.cedigaz.org/products/annual-surveys-2013.aspx}\).


\(^4\) Ibid, 58

\(^5\) Ibid, 76
The Southern Gas Corridor

The EC has made the Southern Gas Corridor an infrastructure priority. The community as a whole is engaged in the process to build long-term relations with gas producing countries in the region; and, because implementation of the project requires cooperation between member states and with gas production and transportation companies to reach a critical mass of investments that is necessary to complete the project. The strategic objective of the project is to satisfy 10-20% of the EU’s gas demand through these pipelines. The Southern Gas Corridor serves the common interest of all states in the EU, because it provides diversification of supply away from Russia—thus, enhancing the security of supply.

Key potential supplier states for the corridor include Azerbaijan, Turkmenistan and Iraq. If and when political conditions allows it, Iran could also ship gas through the corridor. Because of its geographic position between the Asian producers and European consumers of natural gas, Turkey is emerging as a key transit country with future development opportunities.

Offshore from Azerbaijan’s capital city of Baku lies the Shah Deniz gas field with 1.2 trillion cubic meters of proven reserves. Current production of 9 bcm per annum from Shah Deniz I is not linked to the European markets. The Shah Deniz consortium plans to bring on-line Shah Deniz II, which will produce an additional 16 bcm per annum. This gas is to be shipped through Turkey via the Trans Anatolian Pipeline (TANAP). Six bcm will be reserved for the Turkish market, and ten bcm will be delivered to Turkey’s western border for onward shipment to Western Europe.

There were two pipeline projects that were competing to link the European market with TANAP: the Nabucco pipeline to Baumgarten, Austria; and, the Trans Adriatic Pipeline (TAP) that would serve the markets of Greece and Turkey. On June 28, 2013, the Shah Deniz consortium chose TAP as its preferred customer.

The nascent Southern Gas Corridor will actually consist of four pipelines that are interconnected:

a. Shah Deniz II. The pipeline which currently carries 9 bcm of gas from Shah Deniz I to the Sangachal terminal on the Azerbaijani mainland, will be expanded to carry an additional 16 bcm from Shah Deniz II. Lead developers are British Petroleum (BP) and Statoil.

b. The Southern Caucasus Pipeline Expansion (700 kilometers). A pipeline capable of carrying 16 bcm of natural gas will be laid next to the existing pipeline that carries 7 bcm from the Sangachal terminal to the Georgian-Turkish border. The lead developer is BP.

c. TANAP (1900 kilometers). This will be a new pipeline capable of carrying 16 bcm per annum (6 bcm for the Turkish market) from the Georgian-Turkish border to the Greek-Turkish border. The lead developer is the State Oil Company of the Azerbaijan Republic (SOCAR).

d. TAP (867 kilometers). This will be a pipeline with a 10 bcm per annum capacity (expandable to 20 bcm) that will run from the Greek-Turkish border, through Albania and then under the Adriatic Sea to Italy. In Greece, the line will mostly run alongside the natural gas transmission system owned by the National Natural Gas System Operator, SA (DEFSA). TAP officials
Fluxys is a Belgian-based, European gas infrastructure company. In July 2013 it accepted a 13% ownership in the Swiss-based holding company TAP AG, making it partners with internationally renowned oil and gas majors Statoil, E.On, BP, Total and SOCAR. These companies are prepared to sell to Fluxys additional shares in the pipeline, which would bring Fluxys ownership to 16%.

It is Fluxys’ intention to double its size in Europe, and Fluxys believes that TAP will be the key infrastructure project to make Caspian gas available to Europe. Fluxys partners the Italian pipeline company Snam, SPA, in a reverse flow project, designed to bring gas from Southern to Northern Europe. Fluxys’ investment plan includes the expansion of the Snam grid, to allow Caspian gas to enter the heart of Europe. Through other grids such as Transitgas, TENP and the Belgian grid, Caspian gas could reach the major European gas markets of Germany, France and the United Kingdom.

Much of the legal work to create TAP has been completed. There are separate bilateral host country agreements between Greece and TAP, and between Albania and TAP. These are private law contracts to protect the pipeline that, once ratified, will form part of the law of the respective host states. In addition, there is an intergovernmental agreement binding Italy, Greece and Albania to support TAP. Finally, there are advanced pricing agreements between Switzerland (home of TAP AG) and the host states, to avoid double taxation on revenues. These legal documents mitigate political risks in the host states, and provide comfort to potential investors and financiers, by demonstrating a clear political commitment by the parties to support the TAP project.

Through the construction of TAP, the pipeline should contribute to the growth of local economies along the route. TAP can help sustain this growth in Greece, through an intended Operation and Maintenance agreement with Desfa. In addition, since there are political agreements with Greece and Albania that will allow for exit points in those two countries, TAP could act as a potential catalyst for the gasification of the entire Balkan region. While the current and projected levels of natural gas consumption in these countries are small, the forecasted growth rates are strong.
Should Turkmenistan and/or Iran agree to use the Southern Gas Corridor to sell to Europe, it would increase the security of supply immeasurably. Iran has an estimated 33.6 trillion cubic meters of proven reserves, and Turkmenistan has 25.1 trillion cubic meters. Iran has the largest proven reserves in the world, and Turkmenistan is number four.

There is also the possibility that the future East-Med gas pipeline could deliver natural gas from the new Eastern Mediterranean fields to TAP in Greece. There are a number of factors that make this prospect highly theoretical, however. The fields are claimed by Cyprus, Israel and Lebanon, and all would have difficulties exporting the gas. Israel has two fields, Leviathan and Tamar, with estimated reserves of 476 bcm and 250 bcm, respectively. Cyprus has the Aphrodite field, with an estimated 140 bcm. Lebanon has not done any exploration, to date; but seismic surveys estimate reserves of about 700 bcm.

a. Israel has not yet made the political decision to export. If such a decision were forthcoming, the question of how and where would have to be decided. An LNG terminal would be costly, leaving a pipeline the more economical option. If the pipe went to Turkey, it would have to cross the national waters of Lebanon and Syria—a politically charged option. If the pipe went to Cyprus, the Republic of Cyprus wants to construct an LNG terminal to service its own market, ending its dependence on imported fuels. Cyprus would not want the cost of an export line.

b. If Cyprus were to develop the gas with the Israeli input, it has not discovered a sufficient quantity of gas to make the LNG terminal profitable. Further, the Turkish Republic of Northern Cyprus also claims the Cypriot gas fields, muddying the title for the gas.

c. Lebanon’s title to any potential gas finds is also disputed, since there is a question as to the location of the maritime barrier between Israel and Lebanon.

Construction of the East Med Pipeline, which would travel from the gas fields to Greece via the island of Crete, is estimated to cost at least USD 20 billion. Given the current creditworthiness of these two countries, the East Med Pipeline remains theoretical, at best.
Part II

Europe
Chapter III

EU Perspectives on the Southern Energy Corridor

By

Christian Burgsmueller

European Energy Sources: The Four Baskets

As the European economy grows, it will meet its energy needs through four different strategies, or baskets: conservation, renewables, domestic production, and imports.

The first basket, conservation, looks at energy from the demand side. Simply put, Europeans can use less energy if they want to.

The second basket, renewables, includes such unconventional sources of energy as wind, solar and geothermal. While all of these techniques show great promise, there is considerable doubt concerning Europe’s ability to rely on renewable sources to meet its needs.

The third basket, domestic production, holds the home-grown production of European fossil fuels. A possible way to increase domestic production is through the use of shale gas. One should not hold one’s breath waiting for this, however, since the EU is still evaluating the environmental impact of fracking. This is the drilling process formally known as hydraulic fracturing, in which large quantities of water, sand and chemicals are injected under high pressure to break the tight rock formations. On the other hand, one should not rule out fracking as a future possibility, as most countries in the EU have not made a definitive decision yet.

The fourth basket, imports, is the bringing of fossil fuels into the EU from countries outside the Union. To maximize its energy security, Europe needs a strategy of diversifying its sources of energy. The EU believes one should not keep all its eggs in one basket, lest it breaks. Some possible diversified sources of energy include Norway and Canada. These are friendly neighbors, and dealing with these countries raise no geopolitical issues. It is no secret that the EU approached the United States, expressing an interest in US crude oil exports. This discussion was expanded to include LNG exports. If a free trade agreement is concluded between the EU and the US, energy will be part of the deal and North America will be part of EU’s diversification strategy.

The United States also exports coal to Europe, but the increase in American exports does not necessarily mean the EU is consuming more coal. Much of the American coal displaces Australian coal, which is more expensive. A European reduction in coal consumption requires an increase in the price of carbon within the Emissions Trading System. If carbon emission certificates cost 20 euros per ton or more within the system, it would act as a real incentive for energy companies to invest in green technology.
Russia will remain part of the European energy equation for a long time to come. Russian gas is an integral part of the EU energy mix. While the EU is interested in reducing Russian imports, one must remain realistic about the numbers. One issue that may mediate European consumption of Russian gas is price, which varies proportionally with one’s dependence. The more Europe needs Russian gas, the more Russia can charge Europe for that commodity.

There are other areas from which Europe can import energy: namely, from Africa and from the Caspian region. European imports from Africa are expected to grow in the future, and imports from the Caspian can increase if the Southern Energy Corridor (SEC) is constructed.

To keep control over Eurasian energy, Russia may bring pressure on the SEC. It has proposed South Stream, a pipeline bringing Russian natural gas to Europe. Russia sees South Stream as a direct competitor to the SEC. It is still uncertain, however, as to whether South Stream is designed as a spoiler, or whether it is a pipeline that will actually be constructed and will send energy to Europe.

Russia has made its peace with the idea Azerbaijan will export natural gas via the SEC. After all, it is already exporting crude oil via the Baku-Tbils-Ceyhan pipeline instead of using the Russian pipeline system. Russia appears to differentiate between Azerbaijan’s use of an alternative pipeline, however, and Turkmenistan. It might well take steps to interfere with Turkmenistan’s efforts to use the SEC.
Shale Gas

There is a lot of optimism in Europe about its energy future, because of the probability that shale gas can be a new energy source. In general, however, this optimism should be tempered because of the controversy surrounding the hydraulic fracturing, or “fracking”, technique that is used to recover the gas. The environmental debate is less at the European level, more at the local level. How shale gas will shape up in Europe is anybody’s guess at this point very early in in the exploration phase, but it could play some, likely modest part in a European strategy to diversify energy sources.

We might be in for some surprises. Romania and Ukraine appear to have large reserves of shale gas, and the UK and Poland may produce some quantities as well. Russia is also aiming to exploit its own unconventional resources, such as tight oil and shale gas. Even though Russia has no qualms about this as a future source of Russian energy, and it dismisses the threat of European shale gas to demand for its product, in private the Russians are nervous about it. As a result, they have launched a public relations campaign in Romania, and in Brussels, to discredit shale gas as environmentally dangerous. Russia is trying to undermine and exploit shale gas simultaneously.

The Southern Gas Corridor

In the Southern Gas Corridor, Azerbaijan will achieve something that Russia has wanted in Ukraine for many years: almost total control over the pipeline route in the main transit state, Turkey. Azerbaijan is allowing third party investors to join in the construction of the Trans Anatolian Pipeline (TANAP), but they will maintain majority control.

Alternative Sources

At present, all the natural gas destined for the Southern Gas Corridor will come from Azerbaijan. Other countries could use the pipeline, as well, but there are a number of issues surrounding any of the potential alternative sources. Turkmenistan is directly across the Caspian from Azerbaijan, and has sufficient reserves to supply Europe, China and possibly East Asia simultaneously. But Turkmenistan is currently only exporting gas to China in a pipeline that the Chinese built in less than two years. If Turkmenistan decided to ship its gas though the Southern Energy Corridor, the product would have to traverse the Caspian. Other countries, such as Russia and Iran, have raised legal issues to prevent this from happening. Specifically, the question is whether the Caspian is truly a sea, or if it is a lake. If the
Caspian is a sea (as the name implies), then each country controls the waters on its border. Azerbaijan and Turkmenistan would be free to make a bilateral deal, and construct the Trans Caspian Pipeline (TCP) under their territorial waters. This would connect the gas fields of Turkmenistan with the Southern Gas Corridor. If, however, the Caspian is a lake (a body of water without egress) then the waters are owned by all the countries that border the lake, including Russia and Iran who are opposed to the construction of the TCP.

A second potential source of gas for the corridor is Iraq. From an infrastructure perspective, it would be relatively easy to construct a pipeline from Northern Iraq to Turkey. Iraqi gas could then be injected into the Trans Anatolian Pipeline (TANAP), an integral part of the corridor. If pipeline construction commenced immediately, natural gas could start flowing to Turkey as early as 2016 or 2017.

Iraq has a number of problems, however. The country has a number of political problems, and is on the verge of disintegrating. One of the issues under debate is who owns the oil and gas and has the right to set export policy. In Northern Iraq, do the natural resources belong to the Iraqi people as a whole, in which case development should be by the Arab-controlled central government? Or, do the resources belong to the region in which they are located, in which case development should be by the Kurdish-controlled local government?

Aside from the political bickering, Iraq has never fully recovered from events of 2003 and their aftermath. There are still frequent blackouts throughout the country. Since the energy is needed domestically, how can one allocate the quantity to be exported?

A third potential source of natural gas is in the Eastern Mediterranean, in fields beneath the sea between Israel and Cyprus. There are estimates as to how much gas is in Israeli waters, but it is unclear how much is in Cypriot waters. Developing this gas raises a number of political issues, including who owns which particular drilling parcel, and pipeline routes though waters controlled by countries that do not cooperate with one another. As an example, the Turkish Republic of Northern Cyprus would oppose Cypriot gas exploration—or the shipping of gas to Turkey which would be needed to place it in the Southern Gas Corridor—until the Cyprus conflict were resolved. There are also a number of competing ideas for shipping the gas: Israeli gas to a proposed LNG plant in Cyprus; a pipeline from the Israeli offshore fields to Turkey through Cypriot EEZ, a pipeline through Cyprus to Greece; a pipeline to currently idle LNG terminals in Egypt, floating LNG terminal(s) and compressed natural gas on ships (an untested technology), none of which come without significant political and/or commercial drawbacks.

A fourth potential source is Iran, which hold enormous reserves of natural gas. Because of the stressed political ties that Iran has with much of the world, as well as the effect of American sanctions on potential purchasers of Iranian gas, this is only possibility if the nuclear dispute is resolved. Even if that happens, there are domestic constraints to Iran’s ability to export the gas. Iran would have to reform its regulatory and investment system to open its oil and gas sector to private investment.

South Stream
There are a number of conflicting opinions on the objective of South Stream, Gazprom’s proposal to construct a parallel pipeline to export Russian natural gas to Europe. Is South Stream being built as competition to the Southern Gas Corridor, or is it a project designed to circumvent transit countries, such as Ukraine? The downside to South Stream, for Europe, is that it increases European dependence on Russia for its energy supplies.

If the Russians proceed with construction of South Stream, they may end up doing the European Union a great favor, provided that the EU stands firm on its requirements to comply with its Third Energy Package that promotes competition and stipulates that pipeline owners have to allow third parties to access capacity. Southstream could then become a major pipeline to the Balkans, 50% of the capacity of which will be available to non-Russian suppliers such as the countries of the Caspian.
Part Three

The Neighbors
Regional Energy Review

In the past decade, Europe has looked to the Caspian region as a source for oil. Through the Baku-Tbilisi-Ceyhan oil pipeline, by the end of 2013 Azerbaijan distributed around 1,835 million barrels of crude oil to world markets. Now, Europe is beginning to consider the Caspian as a source of natural gas.

The world holds 187.1 trillion cubic meters (tcm) of proved gas reserves, over 45% of which are held by countries surrounding the Caspian Sea. These countries are Russia (44.8 tcm, 23.9% of the world total), Iran (29.6 tcm, 15.8%), Turkmenistan (8 tcm, 4.3%), Kazakhstan (1.8 tcm, 1%) and Azerbaijan (1.3 tcm, 0.7%). Other countries with major proved gas reserves, not on the Caspian but close enough to influence regional energy decisions, include Qatar (25.3 tcm, 13.5%) and Uzbekistan (1.6 tcm, .8%).

Gas exports from the Caspian travel primarily either West through the Gazprom pipeline system, or East through Chinese-financed pipelines from Central Asia. Currently, the only non-Russian natural gas pipeline to the West is the South Caucasus Pipeline, traveling from Baku, Azerbaijan; through Tbilisi, Georgia; and ending Georgian Turkish border with further connection to Erzurum, Turkey. This pipeline has a 42 inch diameter, making it capable of carrying 8 billion cubic meters (bcm) per annum through its 691 kilometer length. The pipeline has been operational since late 2006, transporting gas to Azerbaijan and Georgia, and Shah Deniz Stage 1 gas has been flowing to Turkey through the pipeline since July 2007.

In 2000, Europe obtained its energy primarily from oil (41%), followed by gas (23%), nuclear and coal (15% each), Hydro (2%) and all other renewables (4%). In the future, it is estimated that European reliance on natural gas will expand greatly, almost equaling oil. By 2030, the energy mix is predicted to be oil (37%), gas (34%), coal (10%), nuclear (8%), hydro (2%) and other renewables (9%). The Caspian gas does not currently extend to the European Union (EU), which could use it.
Traditionally, Europe primarily imports natural gas from Russia, Norway and Algeria. In 2013, Europe (including Turkey) imported 181 bcm from Russia, around 30% of Europe’s total import. Norway provided 28%, and Algeria 13%. Europe is not a major destination for liquid natural gas (LNG). The EU’s degasification terminals were only being used at 20-25% of capacity. LNG from the Middle East and Africa has gone mainly to South East Asia, because it can command higher prices there. Russian and Norwegian gas reaches Europe via pipeline; Algerian gas is a mixture of both pipeline gas and LNG. Russia has three routes to the EU: transiting Ukraine, transiting Belarus, and direct access under the Baltic Sea through Nord Stream. A fourth route, South Stream, is under development.

There are a number of new pipeline routes being discussed: the expansion of the South Caucasus Pipeline, the Trans Anatolian Pipeline (TANAP) which will stretch the length of Turkey, and the Trans Adriatic Pipeline (TAP) that will run from TANAP to Italy. All are designed to bring Caspian gas to Europe and, collectively, are referred to as the Southern Energy Corridor or the Southern Gas Corridor (The Southern Corridor). There were two other projects discussed in the near past: the Azerbaijan-Georgia-Romania Interconnector (AGRI), and White Stream, a Georgia to Romania.

There are additional sources of natural gas that could reach Europe, with investment in the appropriate infrastructure. The first is Northern Iraq. This gas could connect with TANAP and then transported to Europe either via TAP or via construction of Turkey-Bulgaria interconnector. Recent gas discoveries in the East Mediterranean cannot be underestimated. This gas could reach Europe either by pipeline through Turkey, or as LNG. Possibility of transportation of small volumes of Turkmen gas to Europe after completion of the Southern Corridor shall not be excluded. Finally, Europe would welcome LNG deliveries from the United States.

The Southern Corridor

---

The Southern Corridor consists of several natural gas pipelines strong together to deliver gas from the Shah Deniz 2 gas field in Azerbaijan to Europe. It consists of an expansion of the pre-existing South Caucasus Pipeline (Baku to Georgian-Turkish border), TANAP (Eastern Turkish border with Georgia to the Western Turkish border with Greece), and TAP (Turkish Greek border to Italy).

TANAP is a planned pipeline with a projected capacity of 16 billion cubic meters per annum (bcma). Of that amount, 6 bcm will be offloaded at Bursa, on the eastern side of the Sea of Marmara. The remaining 10 bcm will be delivered to the Turkish-Greek border. This pipeline can be expanded to a capacity of up to 31 bcm, and there is the possibility of constructing a spur to Turkey’s third largest city, Izmir.

TAP will connect to TANAP at the Greek city of Kipoi, will transit both Greece and Albania, pass under the Adriatic Sea, and come ashore in Southern Italy. It will have a capacity of 10 bcma, with the possibility of expanding it to 20 bcma. The estimates are that the first flow of natural gas will pass through TAP in 2019. TAP’s owners are the State Oil Company of the Azerbaijan Republic (SOCAR-20%), British BP (20%), Norway’s Statoil (20%), Belgium’s Fluxys (16%), France’s Total (10%), Germany’s E.ON (9%) and Switzerland’s Axpo (5%).

The Shah Deniz Consortium chose TAP as the western end of the corridor after considering the alternative pipeline proposal, Nabucco-West. TAP won the competition because its cost of construction was significantly less, the planned route was shorter, and the overall cost of construction was only two-
thirds that of its rival. Specifically, the cost of constructing TAP is projected to be $3.85 per 100 kilometer (km), while Nabucco-West estimated its cost at $4.35 per 100 km. TAP will be 520 km in length, while Nabucco-West was expected to be 1300 km. The overall cost of construction for TAP is estimated to be $5.64 billion (4.4 billion Euros) while Nabucco-West anticipated costs of $8.47 billion (6.6 billion Euros).10

The European Commission issued a press release celebrating the anticipated Final Investment Decision on the Southern Corridor. “The European Commission welcomed today’s final investment decision on extracting gas from the Shah Deniz 2 gas field in Azerbaijan. With this long awaited decision, it is confirmed that Europe will get 10 bcm per year starting from the end of 2019.” EU Commission President Jose Manuel Barroso added to the statement. “Today’s decision by the Shah Deniz II Consortium is a strategic door opener for stronger European energy security. Building on the Joint Declaration signed with President Aliyev in January 2011, this important step will give the EU direct access to gas from the Caspian basin. This is a major milestone for the diversification of our energy supplies, to the benefit of European consumers and businesses.” EU Energy Commission Guenther Oettinger added, “This decision to open the Southern Gas Corridor is a real breakthrough. Through its further enlargement, the corridor will have the potential to meet up to 20 percent of the EU’s gas needs in the long term.”11

The first stage of the Southern Corridor is already underway, making it possible to begin planning for its enlargement. Commission Oettinger believes this enlargement is a necessity, “10 bcm is a good start, but...if 10 bcm is all that there is, I will not fly to Baku and seek controversy with Russia for that.” If the pipeline were expanded, the additional gas could come from Azerbaijani reserves in addition to those in the Shah Deniz field. It would take some time to develop these reserves, however.

A Trans-Caspian Pipeline is a proposed submarine pipeline that should connect Eastern (Turkmenistan) and Western (Azerbaijan) shores of the Caspian Sea. But the current geopolitical situation around the Caspian region and potential negative reaction from Russia deferred the realisation of that pipeline. However, another pipeline, East West Pipeline is under construction. It should carry natural gas from gas fields in eastern Turkmenistan to the coast of Caspian Sea across the southern part of the country. From there, gas could be transported to Russia or, when constructed, through the Trans-Caspian Pipeline to Azerbaijan and further to Europe.

Iraqi gas is caught in the tug of war between the central government in Baghdad, and the Kurdish Regional Government (KRG). Assuming that the Iraqi constitutional controversy will be resolved and the KRG gain control over its resources, the government of Turkey has signed a gas sales agreement with the KRG in 2013. Under the terms of the agreement, Turkey will purchase 4 bcma of natural gas

---


beginning in 2017. This quantity will be expanded to 10 bcma by 2020 and then to 20 bcma thereafter. Apparently, 10 bcma is scheduled for Turkish domestic power generation, leaving the possibility open that, in the final expansion stage, 10 bcma per year could be available for export through TANAP. Iran is also a promising source, but there is no confidence in the pace of development in that country’s gas export industry.

Gas from the new fields in the Eastern Mediterranean could be developed in a timely manner, but the operators of these fields could chose the option of shipping the gas as LNG instead of by pipeline. (The question of where to ship the LNG is another question.) The fields are mired in controversy, as they are located under the sea in an area whose national boundaries have not been delimited. Currently, only Israel is actively exploring off its coast. It is also too early to judge how much gas is under the fields, or how much will be approved for export. There are good prospects for discoveries, but estimates based on seismic surveys are not the same as quantities confirmed by drilling. It is possible that 15-20 bcma could become available to the world market by 2020, if the Leviathan field is approved for export. If this gas was augmented by reserves in the Aphrodite field, then there would be sufficient gas available in the 2020s to justify the costs of LNG conversion. The gas would be pricy: at least $400 per 1000 cubic meters.

The ultimate objective of the Southern Corridor is to bring up to 90-100 bcma of new gas volumes to Europe from the Caspian Region, the Eastern Mediterranean Basin and the Middle East. Accomplishing this goal will improve the security of supply in southern Europe by diversifying the source of natural gas for those countries who were put most at risk in 2006 and 2009 when Gazprom interrupted the supply of natural gas through Ukraine. It will also reduce the risk of transit for the gas,
by creating a new, physical bridge between the sources and the customers to import gas to Europe. It will also increase wholesale competition among suppliers. By bringing new gas volumes to new gas hubs, the project will foster liquidity and competition in the wholesale markets.

There is a price to be paid for building the corridor. The government of Azerbaijan has already committed to invest $13-$15 billion to Shah Deniz 2 and the Southern Corridor projects. However, there are no strong guarantees that the country will get sufficient return on its investment. In addition, Azerbaijan is subjected to a number of security threats because of its geopolitical priorities and support of the Southern Corridor. At the first level is the possibility of terrorist attacks on the pipeline itself. As an example, in October 2012, Armenian army had military exercises practicing the scenario of attacking Azerbaijan's oil facilities in case of a war. In particular, the simulation modeled several strikes on oil and gas infrastructures, energy carriers that would affect the economy. Unfortunately, the terror attacks are not the only potential threat to the critical energy infrastructure in Azerbaijan: At the second level, because the Southern Corridor is helping the European Union reduce its energy supply dependency on Russia, the latter could contribute to escalation and inflation of the conflict between Azerbaijan and Armenia. Finally, at the third level, Russia could fuel a separatist movement with cross border minority in northern Azerbaijan. Since Azerbaijan has to deal with these threats, the question becomes whether the United States and/or the European Union has developed any strategies to address/mitigate above security threats and to assist Azerbaijan with its defense. The West needs to differentiate Azerbaijan and its role in supporting western interests from other partner countries, and needs to treat Azerbaijani defense differently. A mechanism is needed that is stronger than the North Atlantic Treaty’s Article IV (consultations), but not as strong as Article V (an attack upon one is considered an attack upon all.)

The Future

To reach this goal the Southern Corridor could be potentially developed in four phases. Phase one, current projects, includes the developments of the Shah Deniz 1 and Shah Deniz 2 fields in the Caspian Sea. These two projects, combined, will have a peak production of approximately 25 bcma in 2020, and it is projected these fields will produce declining amounts until 2046. Phase two consists of future Azerbaijan projects, such as the production of non-associated gas from Absheron Stage 1, deep exploration fields around Shah Deniz, and the discovery of other natural gas fields within Azerbaijani territory. Phase 3 could consist of regional projects, integrating the KRG and Turkmenistan. Phase 4 would integrate other regional gas currently being explored; such as from Jordan, Lebanon and Iraq. Should Iranian product become available to the world market, this could also be included in phase 4. Even without Iranian product, however, fields that could feed into the Southern Corridor could achieve a maximum production of 75 bcma in 2035, and would still be producing approximately 30 bcma in 2050.

---

Why a Southern Gas Corridor

The planning for a Southern Gas Corridor is the result of a mix of events with a number of mid-to long term trends. The most important of these events has been the threat to the security of natural gas supply to Europe. The most famous interruptions are the Ukrainian crises in 2006 and 2009, when Gazprom interrupted the flow of natural gas over alleged pricing disputes. In 2010 it reduced supplies to Belarus; in 2013 it threatened to cancel deliveries to Moldova if that country signed a free-trade agreement with the European Union.

In February 2012, in the midst of a cold snap, Gazprom diverted gas supplies from nine European countries to the domestic, Russian market. Gazprom was firm that it was honoring all of its contractual obligations, but it demonstrated that Russia would not play the role of supplier of last resort.\(^1\)

Threats to the gas supply are not unique to Russian-supplied gas, however. In February 2011, Libya suspended the flow of gas through Greenstream (connecting Libya to Italy under the Mediterranean Sea), and deliveries did not resume until December 2011. Greenstream was closed several times in 2013, after two attacks on the Mellitah gas plant, a takeover of a gas terminal by its employees, and by protesters opposed to the state of lawlessness in the country.

Also in 2013, Islamic militants attacked and seized the Amenas natural gas plant in Algeria, taking a number of hostages. The goal of the takeover, which the terrorists failed to achieve, was “to orchestrate a spectacular fireball that could have killed everyone in the vicinity.”\(^2\) Thirty eight civilians and 29 militants were killed before the Algerian army liberated the plant. Statoil, the lead firm in the joint venture that operated the plant, removed all its employees and they did not return for 11 months.

European Gas Trends

In the mid-to-long trend, Europe will be increasing its consumption of natural gas while decreasing its production. Dutch and British reserves are depleting rapidly. As a result, by 2035 it is estimated that total European Union (EU) output will only amount to 100 billion cubic meters (bcm) per year—a decline of 40 bcm from current rates. At the same time, consumption in 2035 will peak at 554


bcm, an increase of 50-60 bcm. The result will be an increase in imports of approximately 100 bcm per year from non EU countries. The EU’s dependency on natural gas imports will rise from the current rate of 66% to 80/82% of total consumption by 2035.

Currently, the EU imports 35% of its natural gas from Norway, 34% from Russia, 14% from Algeria, and 10% from Qatar. Together, these four states provide the EU with 93% of its total gas imports, and represent 65% of the EU’s gas consumption. While the Russian share is not overwhelming, some European countries are heavily dependent on Moscow for its energy. Russia provides 100% of the natural gas imported by Bulgaria, Estonia, Latvia, Lithuania and Slovakia; 89% by Poland; 85.5% by Hungary; and 73% by the Czech Republic.

Corridor Rationale

The European Commission (EC), in looking at these events and trends, determined that the EU needs to diversify further its sources of gas, and the transit routes bringing the gas to Europe. There were two main options on the EC’s table: increase the capacity to import Liquefied Natural Gas (LNG); or. bring in pipeline gas from the Caspian, Central Asia and the Middle East. The EC wanted to go further, however, and introduce a new business model to break the vertical integration of the gas sector. The goal was to increase competition, and reduce prices.

The EC established five main criteria for whatever business model they adopted. First, the EU would have to develop multiple sources of natural gas. Second, the markets to which the gas would be delivered should be member states that are highly dependent on Russia. Third, upstream producers would have to be prohibited from being stakeholders in the downstream distribution system. Fourth, the transportation system bringing the gas needed enough capacity that it would make a strategic difference in the supply. Fifth, whatever system was established, it should be regulated by EU laws and regulations.

The community decided in 2003 to support the Nabucco pipeline project, because it responded to all the parameters they had set. Nabucco planned to have multiple sources for its natural gas: the Caspian, Central Asia and the Middle East. Its destination markets were the Eastern Balkans and Central Asia, the very areas that were 73 to 100% dependent on Russian imports. The stakeholders in the pipeline would be downstream distributors: the Turkish Pipeline Company (BOTAS), Bulgargaz, the Hungarian Oil and Gas Public Limited Company (MOL), Austria’s OMV Aktiengesellschaft (OMV), Germany’s Rheinisch-Westfälisches Elektrizitätswerk Aktiengesellschaft (RWE), and Romania’s Transgaz S.A. The pipeline capacity was planned to be 31 bcm (approximately 5% of the EU’s consumption). As a European company, Nabucco would be governed by European laws.

Following the 2009 Gazprom shutoff of gas transiting the Ukraine, the EC established a new strategic objective: a corridor that could supply 10-20% of the EU’s gas demand by 2020. The pipeline would be expected to carry approximately 45-90 bcm each year. Nabucco only had one confirmed source for the pipeline: the Republic of Azerbaijan whose Shah Deniz II field was projected to produce 16 bcm by 2018. Of this amount, however, 6 bcm was pledged to Turkey, leaving 10 bcm for European export. Without other countries agreeing to supply Nabucco, it would not be commercially viable.
There were alternative pipeline routes being proposed by other companies: the Trans Adriatic Pipeline (TAP), British Petroleum (BP)’s South East Europe Pipeline (SEEP), and Nabucco-West which was only proposed after the Nabucco partners recognized the original Nabucco pipeline could not work. All of the alternatives, however, required that the gas first transit the Caucasus, and Turkey.

To accomplish this, on 26 December 2011 the republics of Azerbaijan and Turkey signed a memorandum of understanding to construct the Trans-Anatolia Gas Pipeline (TANAP). This project would be built from Georgia to Bulgaria, across Turkish territory, with an initial capacity of 16 bcm. As previously promised, 6 bcm was guaranteed for Turkish domestic consumption, leaving 10 bcm for European export. TANAP marked the final death of the original Nabucco, because it would replace its Turkish route with a pipeline built to handle the quantity available. A major difference from the original Nabucco, however, was that a non-European company, the State Oil Corporation of the Azerbaijan, Republic (SOCAR) took the lead in the new consortium, guaranteeing Azerbaijan’s strategic interests both upstream and midstream.

Companies in the Shah Deniz II consortium reviewed the various alternative pipeline routes for European delivery. Finally, on 28 June 2013, they announced the selection of TAP as its European partner. TAP is owned by a number of energy superpowers: BP (20%), SOCAR (20%), Statoil (20%), Fluxys (16%), Total (10%), E.ON (9%) and Axpo (5%). The pipelines received their confirmed supply on 19 September 2013, when the Shah Deniz II consortium concluded a 25 year sales agreement. The group agreed to sell 10 bcm per year to a number of European companies. The consortium then announced its final investment decision on 17 December 2013. The group agreed to invest approximately $20 billion in the Southern Gas Corridor, including the cost of expanding the South Caucasus Pipeline between Azerbaijan and Georgia.

The nature of the corridor is quite different from what the EC first envisaged in 2003. The source of natural gas is no longer multi-sourced, but single-sourced: Azerbaijan. The destination market is not the Russian dependent East and Central European members, but Italy. The pipeline stakeholders are SOCAR and the partners in the Shah Deniz II consortium, upstream producers. The pipeline capacity in 10 bcm, approximately 2% of the EU’s consumption. The regulatory framework is only partially EU law, as TANAP is outside of Europe’s jurisdiction.
The Ukraine crisis is fundamentally a security crisis that should be dealt with by security tools. However, the US and European response has treated the crisis as an energy one, and focused on policy responses from the energy realm. The US and Europe have focused on addressing this security challenge with energy policies, due to two main factors: one, limited tools in its security tool box and also limited commitment to use security tools vis-à-vis Moscow. Second, Ukraine serves as the main transit state of Russian gas to Europe. Russia supplies a little over a third of Europe’s gas consumption, and half of the Russian supplies transit Ukraine. Over the last decade, Europe has taken a number of steps to reduce the amount of its own dependence on the Ukrainian bottleneck, such as building the Nord Stream pipeline between Russia and Germany.

However, let’s recall that Russia has not impeded any gas flows to Ukraine or Europe at this stage and that in fact the Russian minister of Energy has met with his Ukrainian counterpart and the EU DG for Energy to avert a crisis and have planned additional meetings. The focus of their –payment disagreement is over nonpayment for gas they have received. Moscow is demanding to be paid for further supplies of gas but has not threatened to stop these supplies if payments are made.

The crisis has served as a wakeup call for Europe of the need to improve its security of supply of natural gas, in order to prevent European states from being vulnerable to coercion from Russia. This new European approach has created both advantages and challenges for the Southern Corridor Project.

On the plus side, the crisis has illustrated the importance of the Southern Gas Corridor and the need for diversification of Europe’s gas sources, the importance of interconnectors between different gas
markets, and the special need to focus on diversification and price fundamentals in specific markets that are highly dependent on Russia, versus looking at Europe’s overall supply situation.

On the negative side, by presenting the project as the “alternative to Russian gas”, Europe and the US are encouraging Russia to amplify its attempts to undermine the project. The crisis has also revealed that some Eastern European states that are actually members of the EU and NATO, are not fully committed to policies that would reduce their dependence and that of their neighbors on Russian energy supplies.

Let’s start on the plus side:

The Ukraine crisis has clearly illustrated to Europe and the US the importance of reduction of dependence on Russian natural gas supplies and thus put the SGC in the lime light. The project brings the first new volumes of natural gas to Europe in decades, versus most other infrastructure projects that have simply rerouted existing supplies. While the supply volumes are not huge when you look at Europe’s overall consumption, the project reaches markets that are particularly dependent on single or few suppliers and thus the prices are especially high, such as in Southern Europe. Once this “superhighway” will be built, spurs to additional markets, such as the Balkans and Central Europe can easily be built and new suppliers, such as Iraq or Israel, will be able to use this infrastructure to get their gas to markets in Europe.

The project is being built with double the capacity that is needed for its current supply contracts and to be scalable of up to 60 BCMa.

Despite the lively political debate in the US on the question of acceleration of US LNG exports to Europe in light of the crisis, most of these supplies even if they were available to Europe would not be contracted, due to the large price differentiation between LNG and pipeline gas. Only other pipeline gas can be a real alternative to Russian gas or coal consumption in most markets in Europe.
The Southern Corridor will be the catalyst for interconnectors in Southern Europe. For a number of years, the EU has spoken about the importance of interconnectors, but in southern Europe it has not happened until this project has triggered the building of the interconnectors.

On the negative side, it is logical that Russia will increase its efforts to undermine the stability and expansion of the Southern Gas Corridor, in light of the crisis with Ukraine. Obviously Russia has no interest in Europe reducing its consumption of Russian supplies nor reducing its dependence on Moscow. However, due to the crisis and the sanctions on Russia, Moscow has an even lower incentive to “behave” according to the European rules and will most likely use sophisticated means to undermine the SCG. Options include, attempts to reignite the Nagorno—Karabakh conflict, destabilization of Georgia, financial support for politicians and political movements and in the countries that the project transits that will actively oppose the project. Already, in Eastern Europe, EU and NATO member states are playing a double game in efforts to reduce dependency on Russia. While ministers are speaking with Europeans and Americans about its importance, at the same time, they are advancing the South Stream project through their countries and not making firm commitments to the SCG. Even Turkey, a lynch pin of the SCG, had offered Russia to build the South Stream project through its territory parallel to the route of the SGC. Bulgaria’s leadership, for instance, is speaking in two voices concerning the orientation of its energy policies. Bulgaria’s Prime Minister Plamen Oresharski was present at the Final investment Decision (FID) signing ceremony in Baku on Dec. 17th and declared full support for Bulgaria joining the project. Bulgaria’s gas company Bulgargaz also signed in Sept 2013 a contract with the Shah Deniz Consortium for supply of a BCM annually of gas through the Southern Corridor project. At the same time, other ministers, including Bulgaria’s Minister of Energy, Dragomir Stoynev, stated support for the building of South Stream and opposition to the EU policy moves to suspend the development of South Stream. Stoynev has termed South Stream as “Strategic” for Bulgaria. The EU Energy
Commissioner Oettinger also warned Bulgaria against attempts to pass legislation in its parliament that would define South Stream as an inconnector and not a pipeline in order to declare it exempt from EU Third Energy Package stipulations. Similar duality can be seen in the positions of Hungary and Slovakia.

In summary, for Europe and the US to take advantage of the important contribution of the SCGC to improve European energy security, it must continue to nurture the project politically and on the security level. One, is to invigorate efforts to resolve the NK conflict and to improve stability in Georgia. Next is to make sure that its allies in Eastern Europe fully understand the alliance commitment when it comes to deals with Russia. Last, to monitor and attempt to foil attempts of Russian financed political movements and politicians to undermine the project.
Europe’s need to diversify its sources of natural gas has been highlighted by the possibility of the disruption of Russian natural gas deliveries through Ukraine. While transit gas has not yet been interrupted in 2014, Russia ceased delivery of all gas to that country on May 12, 2014, except gas for which Ukraine has prepaid. Gazprom CEO Alexei Miller provided the rationale:

“We had to introduce the prepayment system today due to the contentious position of the Ukrainian government...Ukraine’s current debt to Gazprom is approximately $4.5 billion and they have not paid for another 11.5 billion cubic meters of delivered gas. We requested that Ukraine pay its debt...” The Russians offered to accept a partial payment, and to allow Kiev to use a payment plan for the balance. When Kiev refused, the prepayment system was implemented.15

Ukraine, more than any other post-Soviet country, needs to work on its energy independence and to diversify its sources of natural gas. Deprived of its Russian source, the country could face a harsh winter. One route of diversification for Europe is the construction of the Southern Gas Corridor, consisting of the proposed Trans Anatolian Pipeline and the Trans Adriatic pipeline.

Russia, however, is equally dependent on Ukraine as its main transportation route to deliver gas to European customers. Just as Ukraine is trying to diversity its sources from Russia, Russia is doing everything possible to diversity its transportation routes away from Ukraine. Diversification for Russia means the construction of Nord Stream and South Stream, as well as pipelines to China.

When the Southern Energy Corridor is completed, it will have the ability to supply up to 20% of Europe’s demand for gas, if gas from Turkmenistan also is delivered by this pipeline. This can be accomplished by expanding the sources of natural gas: in addition to Azerbaijan’s Shah Deniz II field, gas from Turkmenistan and Iran would be included (assuming that international sanctions against that country are lifted.) In order for this capability to be reached, however, it will take approximately $60 billion in capital investment and a half-decade to construct it.

Russia has disagreements with Azerbaijan over common maritime borders and the future of Nagorno-Karabakh. However, Russia has avoided openly critical comments about Azerbaijan producing natural gas, however, or Turkey acting as a transit county. This would indicate that Russia may have come to terms with Azerbaijan’s role as a Western provider, as it happened before in the case of the

---

BTC pipeline. However, Russia might not be so agreeable in terms of other post-Soviet states (e.g. Turkmenistan) providing natural gas to the Southern Corridor.

In fact, Russia has used its political influence to prevent Turkmenistan from taking the necessary steps to sell to the West. These political barriers, as well as infrastructure issues, have kept Turkmenistan’s large volume of gas reserves transported via the Russian pipelines. Consequently, Turkmenistan has begun selling its product to China and India, where there is a large demand.

The natural gas from Iraq that could easily reach the corridor would come from the Kurdish-controlled north of the country. Kurdish deliveries may be delayed by internal disagreement between the Kurds and Baghdad over ownership of the gas, and who has the right to sell it. In the meantime, Russia is trying to gain access to Iraqi energy. As for Iranian gas, Russia is not as concerned because Tehran, similar to Turkmenistan, is leaning toward the Asian/Indian market.

As a result of all these factors, Russia is confident it can maintain its dominant position on the European energy market.
Part Four

Turkey
Chapter Nine
Let’s Talk Turkey: Domestic Agenda, Regional Ambitions

by
Orhan Taner

Turkey’s Domestic Agenda

Turkey held local elections in March 2014. The ruling Justice and Development Party (AK – Adelet ve Kurtulus) captured 43.13% of the popular vote. This was down from AK Party’s high of 49.8% in the 2011 general elections, but was within range of the percentage of votes cast for many years. In the 2007 general elections, AK received 46.6% of the vote; in the 2009 local elections, 38.39%.

With the exception of the 2009 local elections, the secular opposition, consisting of the Republican People’s Party (CHP—Cumhuriyet Halk Partisi) and the National People’s Party (MHP—Melliyet Halk Partisi), combined did not receive enough votes to displace the AK party.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AKP</td>
<td>43.13%</td>
<td>49.80%</td>
<td>38.39%</td>
<td>46.60%</td>
</tr>
<tr>
<td>CHP</td>
<td>26.45%</td>
<td>26%</td>
<td>23.08%</td>
<td>20.90%</td>
</tr>
<tr>
<td>MHP</td>
<td>17.76%</td>
<td>13%</td>
<td>15.97%</td>
<td>14.30%</td>
</tr>
<tr>
<td>BDP</td>
<td>4.18%</td>
<td>N/A</td>
<td>5.7%</td>
<td>3.84%</td>
</tr>
<tr>
<td>DTP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The AK party has been in power since 2002, and has survived multiple scandals. It’s domestic agenda consists of getting its leader, Prime Minister Tayyip Recep Erdogan, elected President in August 2014 and winning a majority of Parliamentary seats in the June 2015 general elections. (Editor’s note: Erdogan was elected President on August 10, 2014 with 52% of the votes cast. It was the first time a president of the Turkish Republic was elected by popular vote.)

Key Turkish Facts and Figures

Turkey is a country on the move. According to the International Monetary Fund, in 2013 its gross domestic product (GDP) was $789 billion, making Turkey the 17th largest national economy in the
world. Its current account deficit was $65.4 billion, representing 7.9% of GDP. This means that, as a percentage of GDP, Turkey had the 59th largest account deficit in the world.

A growing economy requires energy to fuel it. In 2012, Turkey was the 21st largest consumer of energy in the world: 119.2 million tons of oil equivalent. Turkey’s primary energy consumption has increased by 39% over 2002. Energy imports in 2013 totaled $55.9 billion, approximately 22.2% of the country’s total imports. Energy made up 56% of Turkey’s total trade deficit, and 85% of the current account deficit.

The growth in energy consumption is expected to continue into the future. Turkey has a population of more than 76 million people and, according to the Turkish Statistical Institute, this number is expected to rise to over 86 million by 2030. Therefore, total primary energy consumption will likely continue to grow at a compound annual growth rate of around 4.5% from 2015 to 2030, rising to over 237 million tons of oil equivalent in 2030.

The Significance of Natural Gas

Turkey made the decision twenty years ago to replace the relatively dirty soft coal with the cleaner burning natural gas as a main source of fuel. Unfortunately, it has virtually no domestic natural gas production, importing 99% of its gas through pipelines and LNG terminals. Fifty eight percent of all natural gas imports in 2012 came from Russia, followed by Iran (18%), Algeria (9%), Azerbaijan (7%), Qatar (3%), and several other countries.

Today, natural gas is the primary source of electricity generation for the country, rising from 37% in 2000 to 43.6% in 2012. During this period, demand for natural gas increased significantly, from
14.6 billion cubic meters (bcm) in 2000 to approximately 45.3 bcm in 2012. Demand for electricity is expected to rise 7.5% through 2020, so the demand for natural gas will continue to rise as well.

There will be some changes in the future providers of natural gas to Turkey. Russia will remain the largest gas supplier for the foreseeable future, but Azerbaijani exports are expected to increase when the Trans Anatolia Pipeline is constructed. Iran could play a much larger role, if there is a successful resolution to nuclear negotiations and there is a US-Iran rapprochement. Iran also has a say as to Western access to Turkmen gas, which could pass through Iran instead of (or in addition to) through northern pipelines. Iraq has 3.6 trillion cubic meters of natural gas, and could be expected to provide 10 bcm per year to Turkey by 2020. Once questions over transportation routes is resolved, Turkmenistan could also provide Turkey with gas from its estimated 17.5 trillion cubic meters of reserves. The Eastern Mediterranean could also create new supplies for Turkey and the region. Finally, there is liquefied natural gas (LNG) which accounted for 16% of Turkey’s natural gas supply in 2012. The principle suppliers of this LNG are Algeria, Nigeria and Qatar.

In addition to importing natural gas for its own consumption, Turkey has potential as a natural gas hub. Gas from multiple sources could accumulate in Turkey for onward shipping to Europe. Recent developments in Ukraine have sped up the process of Turkey becoming a hub, as the Southern Gas Corridor begins providing gas to Europe. Turkey is geographically poised at the crossroads of Central Asia, the energy-rich Middle East, and the energy-hungry Europe. Acting as a hub would make Turkey a strategic player, and the provision of natural gas to downstream markets becomes a bargaining chip Turkey can use to achieve its other foreign policy goals. As an example, Turkey could demand membership in the European Union in return for gas in its pipelines.

Becoming a hub also has domestic, financial benefits. It would allow Turkey to obtain gas more cheaply for its domestic consumption, while it collected transit revenues for the product going to Europe.
Turkey’s energy situation can be summed up with a simple equation: Rapid growth + limited resources = import dependence.

Despite Turkey’s rapid growth over the past decade, it has very limited domestic sources of energy. As a result, Turkey imports 56% of its gas from Russia and 18% from Iran (it also imports close to a third of its crude oil from Iran). Of the two, Russia is the more important partner since Iran has proven unreliable in the past. As a result, Turkey will never become a strategically anti-Russian force. Its energy appetite deprives the country of the flexibility to take such a stand.

Energy is also an important part of Turkey’s foreign policy. The main issues Turkey faces are the need to diversify its energy sources, to guarantee the security of deliveries, and to find more energy for the growing economy. It supports both the EU’s Southern Energy Corridor and the Russian rival South Stream pipeline, and does not view the two projects as mutually exclusive. Turkey wants to accept energy, such as natural gas, from everywhere. This raises a question for Turkey, since it tries to align its policies with those of the European Community. Since Europe has declared that South Stream does not meet its regulations, how can Turkey allow South Stream to transit its economic zone in the Black Sea?

Russia’s strategy, meanwhile, is to maintain leverage over Turkey by continuing to provide it with oil, natural gas, and now nuclear energy too. Indeed, groundwork to build a Russian nuclear power plant is pretty far along. The site has been selected.

Such cooperation with Russia sends a message to Europe that Turkey has other options. It has recently become a dialogue partner for the Shanghai Cooperation Organization. This organization has its own problems, however. The two major members, Russia and China, view the benefits and role of the SCO differently. China uses it largely to facilitate access to Central Asia, while Russia tries to use it to advance its geopolitical interests. One must ask if Russia and the SCO represent a viable option: the organization so far does nothing concrete. Chinese ideas for creating an SCO free trade area and development bank have not gotten traction in Moscow.

Turkey also is trying to develop itself as an energy hub. Turkey is not an energy exporter, though its geographic location places it along important transit routes for oil and gas flowing from Russia, the Caspian, and the Middle East, to Europe. Turkey is good at translating its strategic location into geopolitical leverage. There are a number of energy providers who have agreed to provide Turkey with additional gas that Turkey can re-export. The TANAP project is one example. Expansion of the Southern Gas Corridor, especially its linkage to Turkmenistan, would open up additional opportunities. Turkey is also trying to position itself as a hub for the distribution of newly discovered gas in the Eastern
Mediterranean, but will first have to address fraught political relationships with Israel and the Republic of Cyprus, in whose waters most of this gas is located.
About the Panelists

Bakhtiyar Aslanbayli – Mr. Bakhtiyar Aslanbayli is a lecturer of the Baku State University. His main areas of expertise are security, energy politics, and the fiscal aspects of energy projects. He has spoken at numerous institutions, universities, think tanks, and international conferences. Mr. Aslanbayli is the author of one book and more than 50 articles and commentaries. In 2001, he was the winner of the scientific completion on oil and gas research conducted by the Ministry of Education and the National Academy of Sciences of Azerbaijan. He holds a B.A. and M.A. in international relations from Baku State University, and is currently a Ph.D. researcher at the Azerbaijan National Academy of Sciences.

Christian Burgsmueller—Dr. Christian Burgsmueller is a career EU diplomat with the European External Action Service (EEAS). Since 2010, he has been serving as Counselor at the EU delegation to the United States, in Washington, DC, where he heads the Energy, Transport and Environment section. Dr. Burgsmueller studied law in Freiburg im Breisgau, Geneva; and he holds a Ph.D. in constitutional law from the University of Cologne. He has been a visiting lecturer on EU and German politics as Sciences Po Paris and the University of Sao Paulo.

Avinoam Idan—Dr. Avinoam Idan is a senior visiting fellow with the Central Asia-Caucasus Institute and the Silk Road Studies Program Joint Center, based in Washington, DC. Dr. Idan is a political geographer, with a regional focus on the Caucasus, Central Asia and Russia. Dr. Idan holds a Ph.D. from the University of Haifa. Prior to his academic work, he served for over 30 years in positions in Israel’s government, including the Prime Minister’s office and in the Israeli embassy in Moscow. Dr. Idan was involved in the establishment of diplomatic relations between Israel and the states of the Caucasus and Central Asia, and in the opening of Israeli embassies in the region.

David Koranyi—Mr. David Koranyi is the acting director of the Dinu Patriciu Eurasia Center of the Atlantic Council. He has been a non-resident fellow at the Johns Hopkins University SAIS Center for Transatlantic Relations since 2010. Mr. Koranyi served as Undersecretary of State and Chief Foreign Policy and National Security Advisor to the Prime Minister of the Republic of Hungary, Gordon Bajani, in 2009-2010. Mr. Koranyi pursued undergraduate studies in political economy and business administration and obtained a master’s degree in international relations and economics, with a major in foreign affairs from the Corvinus University of Budapest.

Magsud Mammadov—Mr. Magsud Mammadov is the external relations manager for the Trans Anatolian Natural Gas Pipeline (TANAP) project. Previously, he served in Dubai, UAE as deputy director for the Middle East, State Oil Company of the Azerbaijan Republic (SOCAR); and as an expert on crude oil and oil products export marketing, in SOCAR’s marketing and operations department. Prior to his joining SOCAR, Mr. Mammadov held a variety of positions including research assistant at the International Center for Religion and Diplomacy; analyst for North American and Latin affairs, Azerbaijan Ministry of Foreign Affairs. Mr. Mammadov’s
educational background includes an MA in international relations from the Paul H. Nitze School of Advanced International Studies (SAIS), the Johns Hopkins University; and, a Bachelor of Arts from Texas State University.

Jeffrey Mankoff—Dr. Jeffrey Mankoff is Deputy Director and fellow with the CSIS Russia and Eurasia Program. He is the author of Russian Foreign Policy: The Return of Great Power Politics (Rowan & Littlefield, 2009) and a frequent commentator on international security, Russian foreign policy, regional security in the Caucasus and Central Asia, ethnic conflict, and energy security. Dr. Mankoff has held academic fellowships at Harvard, Yale and Moscow State Universities. He holds dual B.A.s in international studies and Russian from the University of Oklahoma, and an M.A., M.Phil., and Ph.D. in diplomatic history from Yale.

Nicolo Sartori—Mr. Nicolo Sartori is currently a researcher in the Security and Defense department at the Istituto Affari Internazionali in Rome, where he works on the evolution of technologies in the public safety and security domain, and on the potential convergences between the security and defense industrial sectors in Europe. Mr. Sartori is a Ph.D. student at the department of Politics and International Relations at the University of Kent, with a doctoral thesis on the concept of energy security in the international theory debate. He holds a B.A. in international and diplomatic studies from the School of Roberto Ruffilli in Forli, and an M.A. in international relations from the University of Bologna.

Kate Svyatets—Dr. Kate Svyatets is a lecturer at the University of Southern California, teaching environmental economics, law and policy. She has a Ph.D. (2013) from USC in politics and international relations, specializing in Russia and post-Soviet countries, energy security, and foreign policy, primarily focusing on U.S.-Russia and U.S.-Azerbaijan relations. Dr. Svyatets is a board member of the Young Professionals in Energy in Los Angeles.

Orhan Taner—Mr. Orhan Taner is the director of the Atlantic Council’s Energy and Economic Summit, and the council’s Istanbul office. Prior to joining the Atlantic Council, Taner served as CEO and vice chairman of a Turkish conglomerate, with companies operating in the technology, finance, social media and real estate sectors. Mr. Taner graduated with honors from Hamilton College in Clinton, New York, where he majored in economics and mathematics. He received his graduate degree in administration, planning and social policy from Harvard University’s Graduate School of Education.

Rudy Van Beurden—Mr. Rudy Van Beurden is currently the communication manager at Fluxys, S.A., responsible for internal and external communications. He is also the managing director of Huberator, an affiliate company of Fluxys Europe, providing hub services to the Belgian market (Zeebrugge Beach and ZTP). Additionally, he is the non-executive director of GMSL, a Cambridge (UK) based affiliate company of Fluxys, providing services to the gas and power industry. Since 2005, Mr. Van Beurden has served as a member of the EASEE-gas executive committee for the transporters segment.