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Realization of Turkey's Energy Aspirations

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List of Acronyms

AKP	Justice and Development Party (Adalet ve Kalkınma Partisi)
bcm	billion cubic meters
BOTAŞ	Petroleum Pipeline Corporation
bpd	barrels each day
BTC	Baku-Tbilisi-Ceyhan
cm	cubic meters
EMRA	Energy Market Regulatory Authority
EPİAS	Energy Markets Operating Company
EU	European Union
FTA	Free Trade Agreement
IEA	International Energy Agency
ITG	Interconnector Turkey-Greece
ITGI	Interconnector Turkey-Greece-Italy
KRG	Kurdistan Regional Government
LNG	liquefied natural gas
MENR	Ministry of Energy and Natural Resources
MFA	Ministry of Foreign Affairs
mmBTU	per million British Thermal Units
mtoe	million tonnes of oil equivalent
MW	megawatts
NGML	Natural Gas Market Law
SCP	South Caucasus Pipeline
SGC	Southern Gas Corridor
SOCAR	State Oil Company of Azerbaijan
TAP	Trans-Adriatic Pipeline
TANAP	Trans-Anatolian Gas Pipeline
tcf	trillion cubic feet
tcm	trillion cubic meters
TPAO	Turkish Petroleum
TTIP	Transatlantic Trade and Investment Partnership
U.K.	United Kingdom
/y	each year

Realization of Turkey's Energy Aspirations

Pipe Dreams or Real Projects?

GARETH WINROW

hile writing this paper, local elections were held in Turkey and Russia annexed Crimea.¹ The upheavals in Turkey following corruption allegations against leading officials in the ruling Justice and Development Party (Adalet ve Kalkınma Partisi-AKP), including Prime Minister Recep Tayyip Erdoğan himself, has led to an overhaul of the Turkish judiciary. The deepening polarization of society between supporters of the AKP and its opponents threaten to destabilize Turkey. Russian action against Ukraine forced the U.S. and the European Union (EU) to reconsider their ties with Moscow. These developments may have repercussions for Turkey's energy policy. Investment is crucial to meet Turkey's growing energy needs. In line with opposition groups within Turkey, foreign investors may be alarmed at the graft claims levelled against politicians and businessmen. However, the changing geopolitical situation might work to Turkey's advantage in the medium term as more gas from non-Russian sources may be transported across Turkish territory.

The aims of Turkey's energy policy are threefold. The priority is to satisfy the energy demand of a growing economy. Turkish officials also seek to make Turkey an important energy transit state and a significant energy hub. Energy policy is closely interlinked with domestic politics and foreign policy concerns. Endowed with little oil or gas, Turkey must remain on good terms with its energy-rich neighbors, while mounting energy imports have contributed to a high current account deficit. The Turkish Ministry of Foreign Affairs (MFA) is involved in decisionmaking in important energy projects together with the Turkish Ministry of Energy and Natural Resources (MENR). Energy policy and foreign policy interests occasionally clash and when crucial energy supply needs are at stake, the MFA has little room to maneuver. Largely because of its dependence on gas imports from Russia, Turkey did not condemn the Russian invasion of Georgia in 2008. Following Russia's initial moves in Crimea, Turkish Foreign Minister Ahmet Davutoğlu stressed the role of diplomacy rather than sanctions.² However, Turkey refused to recognize the Russian annexation of Crimea.

The focus of this paper is on gas, which will remain a key component in Turkey's energy mix. Gas will be a significant bridging fuel while efforts are made to use other forms of energy such as renewables and nuclear power. EU policymakers have been pushing for the development of a Southern Gas Corridor (SGC) to deliver gas from the Caspian and Gulf regions to Europe. The latest crisis between Kyiv and Moscow has provided an added incentive for the swift realization and possible expansion of the SGC, which is supported by Ankara. Meanwhile, with the liberalization of the Turkish gas market, politicians and entrepreneurs are pushing to make Turkey a leading commercial hub for the trading of gas.

After examining the importance of gas for the Turkish economy, this paper will focus on the

suppliers of piped natural gas and liquefied natural gas (LNG) to the Turkish market. The prospects for Turkey becoming a gas-transit state and a gas-trading hub are discussed. Turkey's energy aspirations with particular reference to gas are considered within the context of U.S. strategic interests and Turkish-U.S. relations. Finally, an assessment of Turkey's energy policy with specific attention to gas is given noting changing circumstances within Turkey and its immediate neighborhood.

TURKEY'S ENERGY NEEDS

he Turkish economy grew 4.3 percent in 2013.³ Growth had averaged 9 percent in 2010 and 2011 but had fallen to 2 percent in 2012 with monetary tightening and contracting domestic demand. A growing economy requires increased energy imports. Turkey purchases approximately 75 percent of its energy, and the net energy import bill has historically accounted for over two-thirds of the country's current account deficit.⁴ In 2013, this deficit totalled over \$65 billion USD, amounting to 8 percent of gross domestic product.⁵ The Turkish economy entered a period of uncertainty in 2014 with political conflict resulting in the lira plummeting against the dollar. The decision of the U.S. Federal Reserve to taper its monetary stimulus threatens to reduce vital capital inflows to Turkey. The energy import bill will not be helped by a falling lira. According to the International Monetary Fund, the Turkish economy will grow only 2.3 percent in 2014 and 3.1 percent in 2015.6 The projected energy figures given below assume that growth in the Turkish economy will pick up in the longer term.

In 2012, Turkey consumed over 119 million tonnes of oil equivalent (mtoe) (Table 1), and this volume

is expected to rise to over 218 mtoe by 2023.⁷ To meet its electricity needs, Turkey had an installed capacity of almost 62,000 megawatts (MW) as of October 2013, and by 2023 there are plans to have 110,000 MW installed capacity.⁸ Annual investments of \$12 billion USD will be required until 2023 to meet Turkey's overall energy needs.⁹ In 2013, foreign investment in the energy sector amounted to \$2.5 billion USD, which was an increase of 24.7 percent on the previous year.¹⁰

With regard to energy consumption, in 2012 gas was the most important fuel accounting for 41.7 mtoe (Table 1). Turkish officials aim to reduce the energy import bill by using more local resources such as hydropower, other renewable forms of energy and also coal, while embarking on a nuclear power program. In the 2023 Vision of the AKP government, gas, coal, and renewables would each generate 30 percent of Turkey's electricity, with the remaining 10 percent provided by nuclear power. Currently, gas accounts for over 40 percent of Turkey's electricity generation. By 2023, the share of gas used in overall energy consumption is projected to fall from over one-third to 23 percent. The share of coal would rise to 37 percent from about 26 percent in 2012.11 Actual gas import volumes would still increase as the Turkish economy continued to expand.

	1992	% of total	2002	% of total	2012	% of total
Oil	23.5	44.8	30.5	41.7	31.5	26.4
Gas	4.1	7.8	15.6	21.3	41.7	35
Coal	19	36.2	19.3	26.4	31.3	26.3
Nuclear	-	-	-	-	-	-
Hydroelectricity	6	11.4	7.6	10.4	13.1	11
Other Renewables	n/a	-	0.1	0.1	1.6	1.3
Primary Energy	52.5	100	73.1	100	119.2	100

Table 1: Fuel Consumption in Turkey (in millions of tonnes of oil equivalent and percentage terms)

Source: BP Statistical Review of World Energy, various years. *Note:* Numbers are rounded off.

Because of its importance for the transportation sector, oil will remain a key component of the Turkish economy. In 2012, domestic production of less than 45,000 barrels each day (bpd) covered only 6.7 percent of Turkey's total oil consumption.¹² Delays in constructing two nuclear power plants indicate that Turkey is unlikely to generate much electricity from nuclear energy by 2023. The first plant, to be built by the Russian firm Rosatom at Akkuyu on the Mediterranean coast, has not received a construction license due to the late submission of an environmental impact assessment report. The Turkish government has also failed to find a company qualified to examine if the proposed design of the nuclear reactor meets safety requirements.¹³ A second plant, to be constructed by a Japanese-French consortium near Sinop on the Black Sea coast, is not expected to have all units operational until 2028.14

About 30 percent of electricity in Turkey is generated from renewables, and to maintain this level in 2023 the full utilization of hydropower and wind, solar, and geothermal installed capacities of 20,000 MW, 3000 MW, and 600 MW respectively will need to be utilized.15 In February 2014, Turkey's Energy Minister Taner Yıldız noted that over the next 49 years up to \$5.5 billion USD in gas imports will be saved annually as the result of having built renewable energy plants over the last 10 years.¹⁶ However, Turkey may struggle to expand its renewable energy sector. Higher feed-in tariffs may be required for a longer period to encourage investment. A streamlining of the bureaucracy is needed for the swifter allocation of permits and the electricity infrastructure must be improved. By 2023, coal is expected to replace gas as the main fuel in Turkey's total primary energy supply. The AKP government has increased investment to exploit lignite (brown coal) reserves. There are plans

to boost lignite production through privatization, the rehabilitation of old fields, regional development aid, and tax breaks. Turkey imports most of its hard coal, with Russia, Colombia, and the U.S. serving as key suppliers. This "dash for coal" may encounter problems. The lignite produced in Turkey is of a poor quality with little heat content and is highly polluting. Carbon emissions levels will rise appreciably and this would create difficulties in the longer term if progress is made in Turkey's EU accession process.

Gas will hence remain a key fuel. Gas consumption in Turkey increased tenfold in the period 1992-2012 (Table 2). Turkey produced only 0.63 billion cubic meters (bcm) of gas in 2012.17 Estimates vary for Turkey's projected gas consumption in 2020, with the International Energy Agency (IEA) and the Turkish state-owned Petroleum Pipeline Corporation (BOTAŞ) forecasting 59 bcm and 70 bcm respectively.¹⁸ In 2012, 48 percent of gas was used in power generation, 22 percent in industry, and 20 percent by households. More gas will be used by households as the gas grid is expanded.¹⁹ With delays in the nuclear power program, more gas may be utilized for electricity generation. The liberalization of the Turkish gas market could encourage further gas imports. Turkey's Energy Market Regulatory Authority (EMRA) announced in January 2014 that Turkey would consume 46.5 bcm in 2014. This would be 0.5 bcm less than in 2013.²⁰ At the time there were concerns that increasing political instability could lead to a slowdown in investments in the energy sector.

Exploration for gas in the Black Sea has been carried out by Turkish companies and energy majors with disappointing results. According to preliminary estimates from the U.S. Energy Information Administration, the Dadas formation in south-eastern Turkey could have 3.7 trillion cubic meters (tcm) of unconventional shale gas in place, of which over 480 bcm may be technically recoverable. The Hamitabat formation in Thrace could have 960 bcm of shale gas in place with about 170 bcm technically recoverable.²¹ In October 2013, Shell drilled the first exploration well in the Dadas formation. The prospects for a shale gas revolution in Turkey appear exaggerated. The total technically recoverable reserves of about 650 bcm would provide enough gas to meet Turkey's needs for 14 years at 2012 gas consumption levels.

Table 2: Gas Consumption (in billion cubic meters)

	1992	1995	2002	2005	2012
Turkey	4.5	6.8	17.4	26.9	46.3
Germany	63	74.4	82.6	86.2	75.2
United Kingdom	56.4	70.5	95.1	95	78.3

Source: BP Statistical Review of World Energy, various years.

The United Kingdom (U.K.) and Germany are the biggest consumers of gas in Europe. As Turkey's energy needs expand, the gap between Turkey and

these states regarding gas consumption will continue to narrow (Table 2). Unlike Turkey, the U.K. has been a major producer of oil and natural gas but North Sea production has declined and the British economy has become more dependent on LNG imports. Similar to Turkey, the U.K. is interested in shale gas development and is aiming to develop its renewable energy sector (while also replacing its older generation nuclear power stations with new plants) but cheaper coal imports from the U.S. and elsewhere have resulted in coal overtaking gas as the main source of electricity. As in the case of Turkey, Germany is not a major gas producer. Having suspended interest in shale gas owing to environmental concerns, and with no receiving terminals for LNG, Germany will remain dependent on natural gas imports while the nuclear power industry is phased out and the renewable energy sector is expanded. Russia accounts for over one-third of Germany's gas imports. Germany is also becoming increasingly dependent on cheap coal imports from various suppliers, including the U.S., and this is leading to an unwelcome rise in carbon emissions.

TURKEY AS A GAS CONSUMER

urkey will remain a major importer of piped natural gas and LNG for the foreseeable future. Policymakers in Ankara seek to procure gas from various suppliers under favorable conditions and at a reasonable cost, but dependence on Russian natural gas will continue in spite of geopolitical concerns. Apart from the economic recession in 2009, gas deliveries have risen and Russia accounted for 58 percent of imports in 2012 (Table 3).22 Mindful of this dependence, Ankara will not want to jeopardize ties with Moscow over Ukraine. In 2008, PM Erdoğan had noted that relations with the Kremlin could not deteriorate following the Russian invasion of Georgia because then the lights would go out.23 Gazprom has been a reliable supplier of gas upping volumes on the Blue Stream pipeline across the Black Sea when the Russia-Ukraine crisis over gas pricing issues in 2009 hindered Russian gas supplies to Turkey via the Western Line extending through Ukraine, Romania, and Bulgaria.

There have been disagreements between Turkey and Russia and other gas suppliers over pricing and take-or-pay obligations. According to press reports, in 2013 BOTAŞ paid \$490 USD for 1,000 cubic meters (cm) of gas from Iran, and \$425 USD

and \$335 USD for equivalent volumes from Russia and Azerbaijan.²⁴ Take-or-pay obligations require the purchaser to take a minimum quantity of gas and if this quantity is not taken, it still must be paid for. Inadequate gas storage, infrastructural problems and at times reduced gas demand has meant that since 2007, BOTAŞ has struggled to meet its take-or-pay obligations for piped gas from Iran, Russia and Azerbaijan. BOTAŞ paid Gazprom \$2.5 billion USD in take-or-pay obligations in 2011.25 Turkey has a gas storage capacity of just over 2 bcm. This storage capacity of around 5 percent of total gas consumption is one of the lowest in Europe.²⁶ Officials in Ankara are addressing this problem by expanding and developing new underground facilities which could increase storage capacity to over 5 bcm by 2019.27

Turkey has imported Russian gas since 1988 through the Western Line and since 2003 via Blue Stream. Contracts were concluded in 1986 (for 25 years) and in 1998 (for 23 years) to carry up to 14 bcm each year (/y) via the Western Line. The Blue Stream contract was signed in December 1997 to transport a maximum of 16 bcm/y over a 25-year period. With the liberalization of the Turkish gas market, private companies (Turkish and non-Turkish) have taken over part of these import contracts concluded by BOTAŞ. By 2009,

	2005	2008	2009	2010	2011	2012
Russia	17.524	23.159	19.473	17.576	25.406	26.491
Iran	4.248	4.113	5.252	7.765	8.190	8.215
Azerbaijan	0	4.580	4.960	4.521	3.806	3.354
Algeria	3.786	4.148	4.487	3.906	4.156	4.076
Nigeria	1.013	1.017	0.903	1.189	1.248	1.322
Spot LNG	0	0.333	0.781	3.079	1.069	2.464
Total	26.571	37.350	35.856	38.036	43.874	45.922

Table 3: Turkey - Gas Imports by Source Country (in billion cubic meters)

Source: T.C. Enerji Piyasası Düzenleme Kurumu, 2012 Yılı Doğalgaz Piyasası Sektör Raporu (2013) 23

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half of the gas contracted by the 1998 agreement (ie. 4 bcm/y) had been transferred to private firms. In 2012, the whole of the gas volume originally contracted in 1986 (i.e. 6 bcm/y) had been transferred to private companies. These businesses have accepted the BOTAŞ take-or-pay obligations, but have negotiated lower prices with Gazprom. As of March 2014, BOTAŞ was paying \$425 USD for 1,000 cm of Russian gas while the private companies were paying \$305 to \$310 USD.²⁸ Some of these private wholesalers, eager to continue to receive gas at a discount price, have gone into partnership with Gazprom.

In December 2011, Ankara gave permission for the construction of the South Stream pipeline project across Turkey's exclusive economic zone in the Black Sea. South Stream would enable 63 bcm/y of Russian gas to be transported to Europe while bypassing Ukraine. In return, Turkey received gas price discounts, more flexibility in payments concerning take-or-pay obligations, and extensions of the 1997 and 1998 gas agreements to 2025. The 1986 gas agreement which had been due to expire at the end of 2011 was extended to 2021.²⁹ Turkey is thus committed to continue to import considerable volumes of gas from Russia.

Iranian natural gas entered the Turkish market in 2001 following the completion of the Tabriz-Erzurum pipeline and in line with the 1996 agreement for the delivery of up to 10 bcm/y over a 25-year period. Ankara has complained about the quality of this gas, its high price, onerous take-or-pay obligations, and Tehran's practice of limiting deliveries in winter as priority was given to meet the needs of Iranian consumers. Arguing that the gas prices charged by the Iranians are higher than those on the international market, Ankara has taken Tehran to the International Court of Arbitration.³⁰

The recent so-called gas for gold trade between Turkey and Iran, which temporarily enabled Tehran to sidestep U.S. restrictions over payments for Iranian gas in U.S. dollars or euros, attracted negative publicity over allegations that the head of the Turkish bank handling this trade was involved in corruption.³¹ Trade between Turkey and Azerbaijan has been less problematic. In line with an agreement signed in 2001 for the sale of 6.6 bcm/y over a 15-year period, Turkey received gas from the first phase of production at the Shah Deniz gas field in the Caspian Sea in 2007. Another 15year agreement signed in October 2011 will enable Turkey in 2018 to begin importing 6 bcm/y from the second phase of production at Shah Deniz. The inauguration of two gas compressor stations in Erzincan province in August 2013 will boost capacity in Turkey's transmission network and ease bottlenecks in the pipeline system in eastern Turkey. This will enable Turkey to import more Azerbaijani and Iranian gas within the terms of the contracts and allow Ankara to avoid making payments for unused gas.32

Turkey has negotiated long-term contracts to import LNG from Algeria and Nigeria. The agreement signed in 1988 to purchase 4.4 bcm/y of Algerian LNG was renewed for a further ten years in 2013.33 The 22-year agreement to import 1.2 bcm/y of Nigerian LNG has been effective since 1999 and in some years Turkey procured more than the contracted volume. Ankara has purchased LNG on the spot market from Algeria and from sources such as Egypt, Norway, Qatar, and Yemen to meet gas shortfalls in winter months. Turkey has two LNG receiving terminals at Marmara Ereğlisi and at Aliağa near Izmir with annual handling capacities of 8.2 bcm and 6 bcm. More LNG spot cargoes could be handled by these facilities and there is speculation that two new terminals could be constructed.

Turkey could diversify its import portfolio by receiving piped natural gas from Iraqi Kurdistan, Israel, and Turkmenistan. In November 2013, the AKP government finalized a gas sales agreement with the Kurdistan Regional Government (KRG) to import 4 bcm in 2017 and 10 bcm by 2020 with an option to increase the volume to 20 bcm/y. Gas will come from fields being developed in northern Iraq by the Anglo-Turkish firm Genel Energy.³⁴ BOTAŞ reportedly has commenced constructing a pipeline to Mardin which will eventually be extended to the Turkish-Iraqi border at Silopi.35 Continuing disputes between Erbil and Baghdad over whether the KRG has the right to develop its oil and gas fields and export hydrocarbons without the permission of the central Iraqi government could result in delays and Turkey not receiving gas from Iraqi Kurdistan in 2017. The KRG was interested in exporting LNG through the construction of a gas liquefaction plant at the Turkish Mediterranean port of Ceyhan but this appears to have been put on the backburner.

Much attention has focused on the prospects for the export of Israeli gas from the Leviathan field in the eastern Mediterranean. In March 2014, two Turkish companies, Zorlu Group and Turcas Holding, participated in a tender for the possible laying of a 7 to 10 bcm/y capacity pipeline across the eastern Mediterranean connecting Leviathan with the Turkish mainland.³⁶ This pipeline would cross the Cypriot exclusive economic zone to avoid Syrian waters. With the encouragement of the U.S., in February 2014 the Greek and Turkish Cypriots re-commenced talks over the future of Cyprus. In early April 2014, it appeared that Turkey and Israel were about to normalize relations.

A deal was evidently in the making on compensation payments for the families of the victims of the deadly Israeli commando raid in May 2010 on the Turkish vessel the Mavi Marmara, which had attempted to break the naval blockade on Gaza. In these circumstances, hopes were raised about the possibility of a gas pipeline from Leviathan to Turkey. However, given the deep-rooted nature of the Cypriot dispute it will not be easy to conclude a deal. The Israelis may opt to export gas from Leviathan to Asia using LNG tankers. Woodside Petroleum, an Australian company with LNG expertise, has negotiated a preliminary deal with companies working at Leviathan. At the time of writing, this deal was not finalized because of disagreements over tax issues.37 The Israeli authorities regard gas as a strategic good. Jerusalem, therefore, may be unwilling to commit large volumes of gas to Turkey given the problems between Israel and Turkey in recent years.

In May 1999, BOTAŞ concluded a 30-year deal to purchase 16 bcm/y from Turkmenistan. A framework agreement signed in 1998 included provisions for the delivery of 14 bcm/y of Turkmen gas to Europe via Turkey.³⁸ These agreements have not been realized because of the lack of a pipeline connection. Considerable gas imports from other sources are unlikely in the near future. The possibility of importing gas from Egypt collapsed after the conflict in Syria prevented work on the extension of the Arab Gas Pipeline. In spite of various memoranda of understanding, Baghdad will oppose the export of gas to Turkey from fields directly under its control because of the priority given to meet the needs of domestic consumers.

TURKEY AS A GAS TRANSIT STATE

rergy transit—i.e, the flow of hydrocarbons Lacross the territory of a state to ensure that energy is delivered from a supplier country to a consumer country—is not adequately covered by international treaties. Russia blocked negotiations on a Draft Transit Protocol within the framework of the Energy Charter Treaty which had aimed to ensure that tariffs charged by transit states should be objective, reasonable, transparent and non-discriminatory. The energy *acquis* of the EU does not fill this gap in spite of its references to non-discrimination and third party access. This has led to commentators differentiating between so-called "good" and "bad" energy transit states. A "good" energy transit state should not disrupt energy flows, charge exorbitant transit fees, tap into pipelines, and demand oil and gas at a discount and then re-export these hydrocarbons for a higher price.³⁹ One may add that political stability, the rule of law, and a developed infrastructure, are also prerequisites for a "good" energy transit state.

Considerable volumes of oil are transported across Turkey on the Baku-Tbilisi-Ceyhan (BTC) and Kirkuk-Ceyhan pipeline networks. Small amounts of Azerbaijani gas transit Turkish territory to be re-exported to Greece via the Interconnector Turkey-Greece (ITG). Operational since November 2007, this 7-11 bcm/y capacity pipeline, intended to connect with the proposed Interconnector Turkey-Greece-Italy (ITGI), has been transporting up to 0.75 bcm/y to Greece in line with the 15-year export contract signed by the Greek state-owned company DEPA and BOTAŞ in December 2003.⁴⁰

The latest Russia-Ukraine crisis has opened up new opportunities for Turkey to promote itself as a key transit state to transport gas from the Caspian and the Middle East to EU member states. In 2013, Gazprom exported over 167 bcm to Europe of which 130 bcm was delivered to EU member states. One half of exports to Europe transited Ukraine.⁴¹ In November 2010 the European Commission had noted that the envisioned SGC could provide as much as 45 bcm to 90 bcm to EU member states by 2020.42 This ambitious target will not be met, but the Russian annexation of Crimea has forced the EU to look for alternative sources of gas. According to the IEA, annual gas demand in the EU is projected to increase from 526 bcm to 622 bcm by 2030.43 Reacting to developments in Crimea, Brussels froze negotiations with Moscow on South Stream. The head of ENI, the Italian company with a 20-percent stake in the project, has expressed serious doubts that South Stream will be built.44 EU member states will continue to import Russian gas along other routes via the Baltic Sea and via Belarus and Poland, even if Gazprom terminates deliveries through Ukraine. Nevertheless, it would make political and commercial sense for the EU to promote the expansion of the SGC.

Doubts were raised over Turkey's role as a "good" energy transit state concerning the proposed Nabucco pipeline when Turkish negotiators were accused of demanding high transit fees and for seeking 15 percent of gas to be transported along the line at a discount price. An intergovernmental agreement on the planned 31 bcm/y Nabucco pipeline to carry gas from Turkey's eastern border to Austria was only signed in July 2009 after the Turkish MFA had intervened. In return, Turkey was promised 60 percent of all taxes collected for transporting the gas and the European Commission pledged to meet Turkey's energy needs in any future crisis.⁴⁵

The Nabucco project was later shelved, but the initial phase of the SGC is taking shape. Gas will be transported from the second phase of production at Azerbaijan's Shah Deniz field to Turkey and Europe. The capacity of the South Caucasus Pipeline (SCP) (Baku-Erzurum pipeline) will be expanded from 8 bcm/y to 25 bcm/y and will be hooked up to the Trans-Anatolian Gas Pipeline (TANAP) which will run across Turkey. At the Turkish border, TAN-AP will connect with the 10 bcm/y to 20 bcm/y capacity Trans-Adriatic Pipeline (TAP) to deliver gas to Italy via Greece, Albania, and across the Adriatic Sea. Initially, 16 bcm/y will run through the corridor with 6 bcm/y allocated to Turkey. If the timetable is met, the first gas will reach Turkey by late 2018 and southern Europe by 2019. The capacity of TANAP may be increased to 23 bcm in 2023, 31 bcm by 2026, and ultimately 60 bcm/y by adding pipeline strings.⁴⁶ Turkish Petroleum (TPAO) has a 9-percent stake in the company operating the SCP and in the international consortium developing Shah Deniz. BOTAŞ is hoping to raise its share in TANAP from 20 percent to 30 percent and Turkish officials want to acquire a stake in the TAP project. According to the terms of the intergovernmental agreement concluded between Turkey and Azerbaijan for TANAP in June 2012, the line will be regulated by Turkish law and the relationship between the shareholders in TANAP will be governed by Swiss law. The shareholders in TANAP will set the transit fees on a non-discriminatory basis for the Shah Deniz consortium and will set different tariffs for other companies which may use the pipeline.⁴⁷ The State Oil Company of Azerbaijan (SOCAR) holds an 80-percent stake in TANAP. SOCAR has offered to divest a part of its shares to BP, Statoil, and Total-three other members of the Shah Deniz consortium-but only BP has expressed an interest and could take up to a 29-percent stake.

SOCAR will maintain a majority stake in TANAP to ensure that gas from other Azerbaijani fields being developed in the Caspian Sea will access the SGC. Azerbaijan could enhance its strategic importance and secure commercial benefits if gas from other offshore Caspian fields is transported to Europe. Given the capacity constraints in the SGC in its initial phase, there will be no spare capacity for the possible transportation of gas from Iraqi Kurdistan and the eastern Mediterranean to Europe via Turkey. The European Commission and Ankara have been lobbying for the construction of a Trans-Caspian Gas Pipeline to carry gas from Turkmenistan to Turkey and EU member states, but talks between Baku and Ashgabat over transport, transit, and infrastructure issues have made little headway. The AKP government is reportedly supporting plans drawn up by the Turkish company Turang Transit to carry 35 bcm/y of gas from Iran to Germany via Turkey. A new network would be laid across Turkey. The cabinet has expropriated land along the proposed pipeline route and Turang Transit has evidently received certification for exemption from VAT and customs duties.48 There are, however, serious doubts over this project given its scale, costs and political sensitivity.

With its control over TANAP, Azerbaijan appears to be calling the shots over the initial running of the SGC. Ankara will benefit from transportation revenues, but Turkey as a transit state will have little say over which gas from what sources enters TANAP. This may impact on Turkey's energy security. While the Iraqi Kurds will want to export their gas to the Turkish market, Turkmen gas is unlikely to find an outlet to Turkey, and the Israelis will have less incentive to channel their gas to Turkey if there is no immediate prospect of sending volumes to Europe via Turkish territory. The transit of energy across a state's territory does not automatically give that state political clout within its neighborhood. Energy producers may hold the upper hand, especially if they acquire a majority ownership of the transit pipeline networks in the transit state.

TURKEY AS AN ENERGY HUB

For Turkey to become a genuine commercial hub where suppliers and consumers trade in an open, transparent, and well-regulated competitive market, the necessary physical infrastructure must be in place. An extensive system of pipelines, together with refineries, receiving terminals and storage units is essential to avoid bottlenecks. The current limitations of the Turkish gas pipeline network and Turkey's inadequate gas storage capacity have already been noted. Other issues need to be addressed including regulatory measures, the unbundling of BOTAŞ and the setting of cost-based pricing mechanisms. These will necessitate further revisions to the Natural Gas Market Law (NGML) adopted in 2001.

According to the Electricity Market Law adopted in March 2013, an Energy Markets Operating Company, EPİAŞ, will be established to operate spot trading in the power market and eventually run a spot natural gas market. Borsa Istanbul will operate a market to handle trade in standardized gas contracts. The aim is to establish swiftly a balancing and settlement system for the trading of gas.⁴⁹ However, these ambitious plans have encountered difficulties and delays appear inevitable given the unstable environment in Turkey. The original intention was to have EPİAŞ up and running for the spot trading of electricity before the end of 2013, but there have been disagreements over the shareholding structure of the company.

According to a draft amendment of the NGML, by January 1, 2015 BOTAŞ should have been unbundled into three separate legal entities dealing with transmission, storage, and trade.⁵⁰ An independent Transmission System Operator is seen as essential to operate the gas transmission network.⁵¹ BOTAŞ will also need to transfer more contracted gas volumes to private companies to boost competition and provide cheaper gas imports. The NGML stated that BOTAŞ should have offloaded gas from its import contracts until its market share decreased to 20 percent of annual consumption by 2009.

The issue of cross-subsidies must be tackled before a cost-based pricing system required for a gas trading hub can be in place. Through a complicated arrangement in which different prices are charged by BOTAŞ to various customers, the state-owned entity pays a high price for imported gas which is sold at subsidized prices to households with the government then forced to reimburse BOTAŞ. According to Energy Minister Yıldız, in 2013 BOTAŞ absorbed losses of around \$2 billion USD and with rising energy costs and the falling lira, holding down energy prices could cost the government \$7 billion USD in 2014.52 The market is distorted further as private companies purchasing Russian gas, at a price cheaper than what BOTAS pays, have to sell this gas at regulated prices in which the tariffs set by BOTAŞ have been taken as a benchmark. With the fall in the lira, these companies have suffered as they purchase gas at a USD-denominated import price and are forced to sell this gas on the domestic market at a capped wholesale price in lira.53 Ideally, a fully liberalized gas market and a properly functioning commercial energy hub would have prices reflecting supply and demand.

Turkey will not become a commercial gas trading hub in the near future. A properly functioning legal and regulatory framework should be in place with mechanisms to resolve contract disputes. Transparency is essential. A stable political and economic climate both domestically and in the neighborhood around Turkey is necessary. Arguably, these are also important conditions for a "good" energy transit state. The controversial overhaul of the judicial system, corruption allegations, and reports of government interference in tenders, have raised serious questions about the effectiveness of the rule of law in Turkey. Mehmet Şimşek, Turkey's finance minister, has admitted that much needs to be done to repair Turkey's tarnished image concerning the rule of law.⁵⁴

IMPLICATIONS FOR THE U.S. AND TURKEY

ith the crisis over Ukraine, Barack Obama's administration is under pressure to expedite the export of U.S. LNG to Europe to offset the continent's gas dependence on Russia. In December 2012, Energy Minister Yıldız had spoken of Turkey purchasing 6 bcm of LNG from the U.S. within three or four years.55 LNG imports from the U.S. could be a useful supplementary source of energy for Turkey, but not within the timeframe specified by the minister. Speculation that considerable volumes of U.S. LNG will enter the European market rapidly and enable EU member states to curtail their imports of Russian natural gas is misplaced. Sizeable amounts of U.S. LNG will be channelled to Asia given the increasing demand for LNG there.⁵⁶ EU member states will need to look for alternative sources of gas and focus on expanding the SGC.

In contrast to the enthusiasm of the Clinton administration for the BTC oil pipeline, the White House had offered initially only lukewarm support for the SGC. The State Department did not appoint a new Special Envoy for Eurasian Energy.⁵⁷ No U.S. energy majors are members of the various international consortia developing the first phase of the SGC, although American firms will undertake construction work on these projects. The cooling of relations between Washington and Moscow has forced U.S. policymakers to give more active backing for the SGC. This was evident in the Joint Statement released at the end of the EU-U.S. Energy Council in Brussels in April 2014.⁵⁸

Concerning possible gas deliveries to Turkey and Europe from northern Iraq, the Obama administration has opposed exports without the approval of Baghdad. This is in spite of the exploration activities of ExxonMobil in northern Iraq and the energy major's links with the Turkish Energy Company which was established to carry out exploration work in Iraqi Kurdistan.⁵⁹ Given the initial capacity constraints of TANAP, northern Iraqi gas will not flow along the SGC for the foreseeable future. However, official U.S. policy may shift in the wake of the Crimean crisis and Washington may facilitate a deal between Baghdad and Erbil to allow gas exports from Iraqi Kurdistan. Significantly, the tentative agreement struck in March 2014 between the KRG and Baghdad to allow the transportation to Turkey of 100,000 bpd of oil from Iraqi Kurdistan along the Kirkuk-Ceyhan pipeline was made possible through the mediation of U.S. Vice President Ioe Biden.60

The talks between policymakers in Washington and Brussels for a Transatlantic Trade and Investment Partnership (TTIP) would remove trade restrictions and would facilitate the export of US LNG. EU member states have pushed for a chapter to be included in the pact which would lay out commitments for U.S. LNG exports.⁶¹ President Obama's visit to Brussels in March 2014 in the immediate aftermath of the Russian annexation of Crimea may give added momentum to the negotiations over TTIP. As a non-EU member which has a Customs Union agreement with the EU, Turkey would lose out economically if TTIP is consummated. More American goods would likely enter the Turkish market. The AKP government has sought without success to launch negotiations with the U.S. on a separate free trade deal.⁶² Visiting Ankara in March 2014, Harold McGraw, Obama's adviser and head of the International Chamber of Commerce, impressed upon his hosts the need for Turkey to redouble its efforts to accede to the EU rather than seek a separate free trade agreement

with the U.S..63 As a state without a free trade agreement (non-FTA) it will be more difficult for Turkey to secure access to LNG. Currently, for U.S. LNG to be exported to non-FTA states the approval of the Department of Energy and the Federal Energy Regulatory Commission is required. As of March 2014 only the initial phases of the Sabine Pass LNG project in Louisiana had obtained full regulatory approval and had commenced construction. In an attempt to expand the list of states that would get automatic approval for U.S. LNG exports beyond FTA countries, in January 2013 the Expedited LNG for American Allies Act was introduced to the Senate. Events in Crimea may speed up the passage of this Act or similar legislation through both houses of Congress from which Turkey would obviously benefit.

The export of U.S. LNG to Europe will not reduce the importance of the SGC. Most of the initial volumes of U.S. LNG which may be exported once regulatory approval is completed are committed to markets in Asia where the price for LNG (\$20 USD per million British Thermal Units [mmBTU]) has been higher than in Europe (\$10 USD per mmB-TU). Before the latest crisis over Ukraine, it was argued that U.S. LNG would struggle to enter

markets in Europe as piped Russian gas at about \$10 USD per mmBTU would be cheaper for the Europeans because of the costs of liquefaction, transport and regasification of U.S. LNG.⁶⁴ Given the new geopolitical situation, commercial considerations may need to be balanced with strategic interests, and some LNG which might otherwise have been despatched to Asia may find its way to Europe. On the other hand, Gazprom may make its exports more attractive to the Europeans by reducing prices and indexing less of its gas sales to the price of oil. Gas exports to Europe accounted for 39 percent of Gazprom's revenues in 2013.65 Russia has failed to negotiate terms to export gas to China because of disagreements over pricing. Even if a deal is concluded with Beijing, given the scale of its exports to Europe Gazprom will continue to remain dependent on the European market for much of its revenues. Rather than importing LNG, in the immediate future Europe will purchase cheap American coal. This coal is made affordable by the shale gas revolution in the U.S.. The "strategic value" of Turkey as a gas transit state will, therefore, not diminish as a result of U.S. LNG being available for export. Russia will continue to deliver gas to EU member states while efforts will be made to expand the SGC.

CONCLUSION

erdoğan will not use victory in the local elections to resort to more wide-sweeping confrontational policies. Plans to make Turkey a commercial energy hub may be put on hold, and Turkey's credentials as a "good" transit state may be questioned, if a heightened state of conflict persists in the country. Shortly before the elections, G.E. Energy Financial Services announced that it was selling its 50 percent stake in Gama Enerji to its Turkish partner. General Electric is one of the largest investors in the Turkish power sector.⁶⁶ Officials in Ankara will not want other foreign investors to follow the example of General Electric. Turkey's energy needs will increase and more gas will be imported given its continued importance in Turkey's energy mix. Dependence on Russia will remain in spite of geopolitical concerns and attempts to diversify Turkey's gas suppliers. Piped gas from Iraqi Kurdistan may enter the Turkish market while the prospects for the delivery of gas from the eastern Mediterranean and Turkmenistan in the short term at least look less promising. However, Kurdish rebels would probably renew attacks on pipelines in eastern and southeastern Turkey if talks between the AKP government and Kurdish politicians collapse.

Tensions over Ukraine may lead to the collapse of the South Stream project. If South Stream is not realized, Ankara would lose a means of leverage over Moscow with regard to gas pricing and takeor-pay obligations given that the pipeline would extend across Turkey's exclusive economic zone in the Black Sea. The increased likelihood of an enlarged SGC in the absence of South Stream, however, would allow Turkey to benefit from transit revenues and enable Turkish officials to stress Turkey's importance for the transit of non-Russian gas volumes.

As the EU seeks to reduce its gas dependence on Russia, and given that U.S. LNG exports will have a limited impact, the capacity of TANAP will likely expand, new pipelines could be built across Turkey and additional connections made to link Turkey with Europe. Plans to deliver gas to eastern Europe, which is greatly dependent on Russian gas, may be reactivated. A version of the Nabucco-West project-a scaled down and shortened Nabucco-may be resurrected. The ITGI could be revived given that the ITG is operating far below its capacity. Brussels and Ankara may finally work out terms with Baku and Ashgabat to enable Turkmen gas to reach markets in Europe via Turkey if the capacity of TANAP is quickly expanded. Funding, though, would be needed for the construction of a Trans-Caspian Gas Pipeline. Furthermore, if relations between Washington and Tehran improve, substantial volumes of Iranian gas feeding the European market may even be contemplated. Ankara's continued interest in the plans of Turang Transit could be viewed within this context.

The full use of current and planned pipelines and the construction of new networks would give Ankara more influence over what gas is delivered to Turkey and transported across its territory, thereby giving added value to Turkey's role as a gas transit state. The Russian annexation of Crimea is a watershed moment, and concerns in Washington and Brussels that EU member states should not remain too dependent on gas delivered by Gazprom could result in what may have remained as pipe dreams becoming concrete realities for Turkey.

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