Turkey as a Regional Energy Hub

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ABSTRACT

Turkey has so many factors operating in favor of it becoming one of the world's great energy hubs – and yet there are so many reasons why it may completely fail to fulfill such a goal. The country's inherent geography – its classic position as a crossroads between east and west, between north and south – makes it natural to become a giant center for trading in oil, gas and petrochemicals. But its attitude – the accumulation of its foreign policy, its approach to energy transit and to internal energy development, and its own uncertainty as to its place in the world in general and its involvement in Europe in particular – tells quite a different story. The future of Turkey as a gas trading hub lies very much in Turkey's own hands. For such a hub to emerge will require Turkey to opt for domestic market liberalization over statism (étatism).

Turkey seems confused as to just what it means to be a hub – let alone the challenges it faces in becoming one. Quite clearly, Turkey already is a major physical hub, in the sense that a host of major oil and gas pipelines already transit the country, with gas supplies further augmented by liquefied natural gas (LNG) regasifaction facilities. But other countries also share this characteristic, so does that make them transit hubtral europes?

For example, the president of Bulgaria, interviewed in connection with the recent Oil and Gas Conference in Baku, declared that Bulgaria sees itself as "the gas hub of Eastern and Central Europe."[1] He has some justification in saying this. Bulgaria receives gas from Russia and transits it to Turkey. In addition, within the next two years or so it is also expected to have interconnectors with both Greece and Romania. Indeed, there is even a Turkish company that has discussed with the Bulgarian authorities the concept of constructing a short inter-

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connector between storage facilities in Turkish Thrace and southern Bulgaria.

Moreover, there is also the prospect of Nabucco to consider. For while Nabucco is commonly viewed as a vehicle for transporting gas from Azerbaijan, northern Iraq and, potentially, other sources in the Middle East to destinations in and beyond Central and Eastern Europe, it, too, is also intended to function as an interconnector.

Greece, too, envisages itself to be a potential gas hub. And it has its own reasons. There is the Interconnector between Turkey, Greece and Italy (ITGI) which not only would carry Azerbaijani gas to Southern European markets but which, in extremis, could carry North African gas to Balkans if, for whatever reason, there were ever to be a repetition of the crises of January 2006 and January 2009. It should be noted that the developers of the Poseidon project – the link in the interconnector system between Greece and Italy – are also involved in developing the 170-km Interconnector Greece-Bulgaria (IGB).

Moreover, Greece can add to this its role in other transit routes, notably the Trans-Adriatic Pipeline (TAP) and the West Balkans Pipeline, the latter being particularly favored by the World Bank. In addition, as noted by Harry Sachinis, the chairman of the Greek regulatory authority, DEPA, in Baku on June 3, 2010, it can also use its regasification terminals to bring liquefied gas into the equation. The flexibility to be gained through the use of regional interconnectors is the reason why Greece, as well as Bulgaria, considers it can serve as a transit route to carry Azerbaijani gas all the way to the existing European gas hub at Baumgarten.

Beyond Bulgaria and Greece, other countries may well consider that they, too, have prospects of becoming transportation hubs. Italy, for example, already receives gas from Algeria and Libya and transits some of this northward to Switzerland and Austria. The developers of both the ITGI and TAP projects say that their pipelines are not simply intended for single customers but can supply a variety of customers, including some in Switzerland, and thus contribute to a further opening up of the Italian market, not least by raising the prospect of onward deliveries to France.

So where does this leave Turkey? Turkey is blessed with the supreme geographical position. In oil, it lies astride the both the giant Baku-Tbilisi-Ceyhan (BTC) pipeline and the major tanker route through the Bosphorus and is pushing to develop its own Bosphorus bypass, the Samsun-Ceyhan (in reality Unye-Ceyhan)

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pipeline. In gas, Turkey has the current or prospective ability to import gas from all directions: from the east, Iran; from the northeast, Azerbaijan; from the north, Russia; from the west, LNG from Algeria (and elsewhere). And, once the final leg gets built in 2011 or 2012, from the south via the Arab Gas Pipeline coming up from Syria to southern Turkey, which serves current Egyptian exports and is envisaged as an export system for future exports from the giant Akkas gas field in eastern Iraq.

Then there is the real promise of northern Iraq, where major oil and gas resources, along with export lines to Turkey, are being developed. Formal proposals for a gas pipeline to connect the new fields at Chamchamal and Khor Mor with southern Turkey have already been lodged with the Turkish regulatory authorities. The line was originally intended to be operational in 2012, but Turkish sources say that a connection from the existing 180-km line within northern Iraq to the Turkish grid is not possible before 2014.

All this makes Turkey a phenomenal crossroads, but does it make it a hub? There are two main issues to consider. Firstly, what is a hub, and secondly, what makes a hub? To begin with, is a hub simply a place where various transit routes meet, or is it a place for actual trade, a genuine market place?

One view is that of President Giorgi Parvenov of Bulgaria. Bulgaria, he argued recently, "is the gas distribution hub of the Southeastern European region, supporting the transit of Russian natural gas to the neighboring countries and thus guaranteeing the security of gas supplies in the region."[2]

Parvenov continued: "As projects of the Southern Gas Corridor are implemented, Bulgaria is to become the gas hub of Eastern and Central Europe. And with the construction of both the Bourgas-Alexandroupolis and Bourgas-Vlore oil pipelines, or of either one of these, Bulgaria is to position itself as a major transit centre of Russian and Caspian oil towards the European and world markets."[3]

What's important about Parvenov's comments is the emphasis on transit. The Bulgarian president clearly considers that being a hub is essentially the same as being a crossroads for transit. That is a very common view and, if a hub is defined simply in these terms, then clearly several countries in the region can either consider themselves already to be hubs, or legitimately harbor ambitions to become hubs over the next few years.

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Turkey certainly meets the criterion of being a crossroads. It has more potential sources for input than Baumgarten, the Austrian hub widely seen as the exemplar in this field, though perhaps rather fewer potential avenues for output. In some cases – notably ITGI, Nabucco, and the Arab Gas Pipeline – the connections are specifically designed as interconnectors, so that while they might normally function in one direction they could, either in extremis or as circumstances change, be used to reverse a previous flow. This would prove extremely important in a regional context, either in the event of any repeat of the Russian gas cutoffs of January 2006 and January 2009, or to cope with various fluctuations in the supply of Iranian gas to Turkey itself. In the long run, it would mean that the Arab Gas Pipeline might start by bringing Egyptian gas north into Turkey but later switch to carrying Azerbaijani gas south to Syria.

But Turkey has greater ambitions. It now wants to be a trading hub, a place where energy is bought and sold. This is an issue that primarily relates to gas. But it is worth noting that in oil Turkey is already transforming its role from being simply a place where some of the world's great pipelines meet. Ceyhan, the terminus for lines from both Iraq and Azerbaijan, is already becoming a price formation center. Indeed Ceyhan may yet succeed in developing an "Anatolian Blend" – in which potential crude supplies from Russia, Kazakhstan and Iran are added to those from Azerbaijan and Iraq – as a regional 'benchmark' crude, a blend used as the regional pricing standard against which other crudes emerging onto Mediterranean markets are measured.

It should be noted that Turkey fully understands that, in oil, it is already largely operating in an open, international market environment in which if it wishes to increase its earnings from the purchase and sale of crude, it has to do so by adding value to the product, in the form of refined products or petrochemicals, rather than simply attempting to purchase oil at one price and then re-sell it with a guaranteed markup. This is why it is actively pursuing the development of both refining and petrochemical facilities at Ceyhan and even, as a much longer-term option, of LNG liquefaction facilities. Such developments would certainly help transform Ceyhan into a key trading hub.

Gas

Yet there remains a distinct focus on becoming a gas hub, especially in regard to seeing Turkey in general – and Ankara in particular – become a place where

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a spot market can emerge in gas. This is a noble ambition. A true hub is indeed a trading hub; an arena in which, ideally, multiple suppliers meet multiple customers in an open, transparent marketplace.

"A hub offers the possibility to do financial trading on one side and physical trading on the other; this includes storage, LNG, and pipelines," argued one Turkish corporate analyst, Kivanc Zaimler of the Sabanci Group's Enerjisa, recently. "A hub offers competition in supply, it offers consumers a better idea of the market, it becomes a possible balancing point for both storage and transportation," he added.[4]

But how are trading hubs created? Obviously, they need pipelines. But they need much more than pipelines. Above all, hubs require market liberalization. As far back as April 2001, when Law 4646 on the gas market was adopted, market liberalization has been an official goal. But as one Turkish energy lawyer, Arzu Ongur Ergan, has pointed out, the reality of gas market liberalization has so far fallen somewhat short of the objective.[5]

The Law's goal is to ensure the provision of good quality gas at a stable basis and at competitive prices. However, Ergan has argued, to achieve this various conditions are required. These essentially comprise creation of a competitive and liberalized market that is both environmentally and financially sound and that is also transparent, sustainable and subject to independent supervision and control. The Law specifically provides for free entry into the market by private entities, the abolition of the state-owned Botas's monopoly in natural gas provision, protec-

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tion of end-users by virtue of competitive prices, limits to markets shares and a free consumer structure and liberalization of distribution grids.

However, nine years on, and Botas still controls around 80% to 90% of the market, with no clear timeframe in sight for this to end. Instead there is doubt. Is Botas to be the purchaser of Azerbaijani gas or the Turkish partner in gas contract renewals with Russia or Algeria? The lack of clarity may prove an indication that the ice is melting, that Turkey may indeed be on the verge of liberalization. But the lack of publicly stated commitments in this regard indicates that much greater transparency is still required.

The issues of transparency and the Botas monopoly are bound up with another crucial issue: price setting. One gas producer told Platts in Baku recently: "Turkey is a hub, in that it is a place through which a lot of oil and gas transits. But if they are trying to buy at one price and sell at another – forget it."[6] In other words, for Botas to use its powers as an importing monopoly to buy gas and then to resell at a guaranteed markup is, to producers such as Azerbaijan, simply unthinkable. However, should the Turkish gas market evolve into an open market, in which suppliers were free to strike their own deals with consumers, then, indeed, Turkey would become a true hub.

The problem confronting Turkey is that for years the issue of Turkey as a hub has been dominated by perceptions that the Turkish authorities in general, and Botas in particular, viewed Turkey's role as a gas hub in terms of harnessing its geographical position to extract one specific advantage from suppliers: the right to purchase their gas at one price and then re-sell it for substantially more.

Turkey may be coming out of this phase. It may be beginning to understand just how detrimental to its own position was the widespread presumption that Botas should, in effect, be able to secure 15% of gas imports from Azerbaijan on preferential terms that it would then be free to resell at market prices. In practice, Turkish energy sources stress, the 15% formula does not constitute official policy, and that although it was mentioned in a clause in the inter-governmental agreement that established the ITGI, it is not present in the agreement worked out in April, May and June of 2010, under which Turkey will both purchase gas from the second stage of the Shah Deniz gas project (SD-2) gas for its own use and to transit that gas to customers beyond Turkey.

What other elements indicate that Turkey may be changing its attitude? Firstly, there is Turkey's application to join the European Union, together with the government's renewed interest in the Energy Community Treaty, membership of which would extend the EU's gas – and electricity – acquis to Turkey itself. Under these circumstances, Turkey's internal energy market would be steadily liberalized, thus creating the conditions for open, transparent trading that are essential for the emergence of Turkey as a genuine trading hub. "By applying for EU membership, Turkey has to be ready to apply EU legislation," noted Ergan, in a specific reference to gas market liberalization.[7]

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Secondly, not least as a result of the recent gas negotiations with Azerbaijan, the Turkish Ministry of Energy is now expected to tackle one of the toughest issues of all: implementation of the long-planned liberalization of the Turkish gas market and the end of the Botas monopoly. In particular, Turkish sources say, Law 4646 is expected to be amended to create both a more liberalized gas market and improved conditions for transit. But how should market liberalization be defined? To Zaimler, "liberalization means a market with many players, with free pricing and gas-to-gas competition."[8] The industry analyst added: "The market can be changed by changing the business model of the incumbent, Botas, with Botas [made] responsible for external supply and leaving the internal market free for different players"; in effect, the model set by Italy. This, argued Zaimler, might take about five to 10 years to achieve. He also argued that gas companies in the domestic market have to have greater independence from the gas supplier.

Other changes will also be required. There will have to be real competition to bring gas to the hub or there will have to be real competition to take gas from it. Ideally, there will have to be competition in both input and offtake.

There will also have to be much greater liquidity concerning both the movement and availability of supply volumes. There will have to be both spare capacity in the system, and a knowledge of just how much spare capacity there is at any given moment in order to maximize flexibilities in the system so that gas supplies and deliveries can either be adjusted or balanced, depending on market conditions. In the case of Turkey, one industry analyst observed: "You need to know pipeline capacities. You need to know what is the true state of idle capacity" in the Botas system. At this stage, it is hard to say just what is – or will be – the idle capacity in the key element of the Botas system, the line from Erzurum to Ankara. Turkish sources state that this information has already been made available both to Azerbaijani gas producers and to developers of the key transit projects, such as Nabucco and TAP. However, it was a source from within those transit companies that was most concerned about a lack of sufficient capacity in the Turkish system to handle transit requirements, and the cost required to upgrade the Botas system to carry the necessary volumes – and thus enable Turkey to function as a hub.

The Role of Azerbaijan

The role of the Azerbaijani negotiations in promoting liberalization cannot be under-estimated. These are not only determining the future pattern of the majority of Azerbaijani gas exports but also the shape of the Turkish gas market itself. There is still a need for caution, since the agreement signed in Istanbul on June 7 made it clear that substantial further discussions were required before a full agreement was to be reached in detail.

But it does look as if real progress has already been made on three particularly complex – but vital – issues that had to be resolved – with Turkish sources saying that all three points were settled in the June 7 agreement. The three issues were:

1. The pricing mechanism for Azerbaijani gas sales to Turkey itself.
2. The question of transit to Greece.
3. The question of Azerbaijani suppliers having direct access to customers in Turkey.

Resolution of these issues was essential for Azerbaijan and the companies developing the giant Shah Deniz gas field to set in motion the complex process of formally approving – which they term "sanctioning" – the €20 billion second stage development of the field (SD-2), intended to raise production to around 25 bcm/y (billions of cubic meters per year) by adding 16 bcm/y of new capacity between 2016 and 2018. Azerbaijani officials said that they are now prepared to move ahead with this project, specifically stating in early June 2010 that they envisaged first gas being produced in 2016, with exports for Turkey itself starting in 2017.

The first issue is an essentially bilateral issue and only impacts on the hub debate if any of these sales are to be priced at a discount. This is not considered at all likely. Whatever specific pricing terms are eventually reached, no doubt as the result of very hard bargaining indeed, they will be commercial.

The second issue appears to have been settled in principle on the basis that the Turkish-Greek border will be the pricing point for Azerbaijani gas sales into the EU.

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The third issue remains open. Azerbaijan would like to secure direct access to prospective customers in Turkey and the developers of Turkey's new generation of gas-fired power plants would also like to be able to negotiate directly with suppliers for gas inputs. So far, the Turkish authorities have agreed that Azerbaijan will be allowed to supply Petkim, the Turkish petrochemicals company in which the State Oil Company of Azerbaijan, Socar, holds a controlling stake, with 1.2 bcm/y from SD-2. The question of whether Azerbaijani suppliers will be able to have direct access to the power generators remains open, although it does not look likely that such access will be secured until there is a much greater liberalization of the Turkish market. This does indeed constitute a particularly tough issue for the Turkish authorities to address since, if Turkey were to open up its market to gas supplied by Azerbaijan, it would come under immense pressure from Russia to do the same for its massive gas imports from Gazprom.

The future of Turkey as a gas trading hub lies very much in Turkey's own hands. For such a hub to emerge will require Turkey to opt for domestic market liberalization over statism (étatism), not an easy issue in view of the role that statist policies have played since Ataturk declared the Turkish Republic in 1923. Moreover, until it becomes clear that Turkey is moving irrevocably to liberalize its internal market, Azerbaijan for one – and possibly other producers as well – will remain concerned that Turkey might be seeking to control energy trade, rather than to facilitate it. Various issues, including the intertwined Armenia and Karabakh issue but primarily the long drawn out negotiations on gas transit, have ensured that Baku remains wary of relying too much on Ankara. In 2008, Socar officials were saying that failure to reach agreement with Turkey had caused already caused a two-year delay in sanctioning SD-2. It's not unreasonable to postulate that since SD-2 now looks to be coming in at least three years later than its original planned start-up date – or with 2017 signifying a four year delay – that Azerbaijani concerns over Turkey will have been intensified.

That's basically the reason that Azerbaijan has focused so much on two alternative projects, one marginal, and the other costly. The marginal project is the supply of 1 or 2 bcm/y of gas to Bulgaria in the form of compressed natural gas (CNG) to be shipped across the Black Sea. The costly project is the delivery of some 7-20 bcm/y of gas to Romania is the form of LNG. Both the compression facilities and the liquefaction plant would be located on Georgia's Black Sea coast.

Such projects essentially constitute a "Turkey-plus" policy. They reflect Azerbaijani concerns that Turkey poses problems as well as solutions.

For Turkey to prove itself to Azerbaijan, it has to prove that its aim in becoming an energy hub is to create an open, competitive and transparent market place. If that's what happens, then it will not only be Azerbaijan, but all producers feeding into Turkey and all consumers taking output from Turkey, as well as a plethora of customers within Turkey itself, that will stand to benefit.

Whether Turkey will opt for such a course remains unclear. Speaking in Antalya last year (August 20, 2009) in the wake of signing a series of energy memoranda with Russia, Yıldız, the Turkish energy minister, declared: "Turkey's deal with Nabucco, Russia, talks with Azerbaijan over gas and energy agreements with Qatar have opened up a new phase. Arab natural gas is an integral part of Turkey's energy policy. Turkey already understands its power. The entire world has seen that there is no choice without Turkey."

That is the language of control, if not of statism. It is not the language of markets; it is not the language associated with developing policies that would create transparent trading hubs.

Turkey's actions in the last year have started to change perceptions concerning Turkish attitudes. But if Turkey is truly to develop as an energy-trading hub, and not simply to function as an energy crossroads, Ankara will have to demonstrate once again that actions speak louder than words.

Endnotes

1. *Caspian Energy*, (June 2010), produced to coincide with the Caspian Oil & Gas Conference in Baku, June 2-3, 2010. Interview with Bulgarian President Giorgi Parvenov.

2. Parvenov, *Caspian energy*, ibid.

3. Parvenov, *Caspian energy*, ibid.

4. Zaimler, Adadress to SEE Oil & Gas 2010 Conference, Istanbul, June 25, 2010.

5. Ergan, of Ongur Ergan Law & Consulting, Ankara. Address to SEE Oil & Gas 2010 Conference, Istanbul, June 25, 2010.

6. Interview with a leading official from a gas producing company in Azerbaijan, conducted by the author in Baku, June 3, 2010.

7. Ergan, Address to SEE Oil & Gas 2010 Conference.

8. Zaimler, Address to SEE Oil & Gas 2010 Conference.