

# BAKU DIALOGUES

POLICY PERSPECTIVES ON THE SILK ROAD REGION

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# How the Caspian Can Help Solve Europe's Gas Woes

## A Close Look at the Trans Caspian Connector Project

*John M. Roberts*

The plentiful natural gas reserves in and around the Caspian constitute an obvious medium- to long-term source of supply for Europe. What may be more surprising is that they also constitute the only source of sustained pipeline gas delivery that can improve Europe's gas balance within months or even weeks.

There are four elements that define the issue. The first is Europe's requirement for gas. The second is the availability of gas for immediate or early input into the equation. The third is the question of the capacity

of available infrastructure to carry the gas to market. Finally, there is the question of whether there is the political support to implement such measures.

The short answer to these questions constitutes the first section of this essay.

### *Four Elements*

Europe wants to replace—within a single year—around 100 bcma of gas supply from Russia by importing gas from a variety of

alternative sources, by substituting other fuels, and by introducing energy efficiency measures. But so far, at least, its policies only appear to account for around three-quarters of this projected 100 bcma supply shift, while it still lacks a program to demonstrate how this reduced level might be achieved.

The principal focus of EU efforts to secure alternative gas supplies is naturally on liquefied natural gas (LNG) since LNG production is continuing to soar, with output expected to increase by around 33 bcm in 2022 following a 36 bcm rise in 2021. But this is basically a one-off enhancement, since much of this year's increase stems from delays to projects scheduled for completion last year or that have suffered from technical and maintenance issues. The problem is that in 2023 and 2024 very little new LNG production is due to

come on-line. So, the Caspian has the potential to play a unique role in the provision of gas by pipeline, since Turkmenistan has available

capacity that can be harnessed in ways that would rapidly improve Europe's overall gas balance.

Caspian gas can reach Türkiye, and thus have a positive impact on European gas markets beyond Türkiye, in three ways. Only two of these definitely possess spare capacity and can therefore carry increased volumes of gas without requiring upgrades while the potential of the other to carry a little bit more is currently being assessed. The first is through the

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original 42-inch South Caucasus Pipeline (SCP), which runs from the Azerbaijani gas terminal at Sangachal to the Georgian border with Türkiye, where it connects to the Turkish grid operated by Türkiye's state gas company, Botas. This line currently has around 3 to 4 bcma of spare capacity.

The second is through the expansion of this system, known as SCP-X. But the 48-inch SCP-X line is earmarked for the delivery

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of gas from the second phase of Azerbaijan's giant Shah Deniz project, and, with production from the field's West South flank due to start in mid-2022, should be ramping up steadily towards its full 16 bcma baseplate capacity during the second half of 2022. However, because pipeline capacities are not precise, *in extremis* SCP-X might be able to carry a little bit more. This year, the operators of the Southern Gas Corridor have already managed both to raise—and utilize—export capacity through the existing SGC system by around 1 bcm/y so that actual flows to the EU are currently running at a rate of 12 bcm/y.

The third is the existing Iran-Türkiye line, which has a nominal 10 bcma capacity, the equivalent of 28 mcm/d. However, this 48-inch line has rarely operated at full capacity and in the opening months of 2022 was carrying less than 14 mcm/d. On the assumption that flows of Iranian gas are not likely to be stepped up until the onset of winter 2022, this should mean that roughly half the line, equivalent to 5 bcma, is currently available for Turkmen gas to be delivered either directly or indirectly to Türkiye.

In sum, around 9-10 bcma of additional Caspian gas can be carried to Türkiye via existing pipelines.

The political support of five countries—Turkmenistan, Iran, Azerbaijan, Georgia, and Türkiye—is required to ensure delivery of 9-10 bcma of additional Caspian gas to Türkiye in the quickest time possible. Azerbaijan and Georgia have repeatedly stated their willingness to act as reliable transit countries for oil and gas produced elsewhere. Iran has demonstrated its willingness to provide de facto transit facilities for Turkmen gas in that it is already part of a swap agreement with Turkmenistan and Azerbaijan that ensures a flow of around 1-2 bcma of gas to Azerbaijan. Türkiye views itself as a natural gas hub and would be likely to welcome increased flows of Caspian gas to offset its reliance on gas from Russia.

The key issue concerns Turkmenistan, which has yet to give a clear signal that it is prepared to work with prospective partners and transit countries to open up a significant export route to the West.

### *Europe's Gas Problem*

Europe's determination to replace so much of its Russian gas supply, and the need for rapid action, constitute an opportunity for Caspian gas to play a significant role in helping to ease the European Union's immediate supply problem

and thus to create the opportunity for increased deliveries thereafter. But the issue also has to be seen in a much broader context.

The European Union—and, indeed, much of the rest of the world—is currently having to grapple with two very different energy crises. One is the ongoing issue of climate change and the need to end reliance on fossil fuels in order to avoid catastrophic consequences from global warming. The other is the need to replace reliance on Russian oil and gas in the wake of Vladimir Putin's invasion of Ukraine and the latest demonstrations by Moscow that it is clearly willing to use gas as a weapon whenever it so chooses.

All this makes Russia an unreliable energy partner for the EU and various other countries. While the issue of Russian reliability was questioned before in some circles, the dangers posed by reliance on Russian gas are now at the heart of the EU's planning for energy security. Three reasons are now given. One, the invasion and outright destruction wrought on a major transit country, Ukraine; another is the stopping of export deliveries to EU member states like Poland and Bulgaria; while a third, muttered rather than spoken out loud, is the concern that it is not sensible to have a partner that not only makes

war on its neighbors but even threatens to use nuclear weapons.

The EU's determination to terminate its dependence on Russian energy supplies was stated on 8 March 2022, when the European Commission, the EU's executive arm, published the outline of its REPowerEU plan, which, *inter alia*, declared that “phasing out our dependence on fossil fuels from Russia can be done well before 2030.” In an accompanying statement, EU Commission President Ursula von der Leyen stated: “We must become independent from Russian oil, coal, and gas. We simply cannot rely on a supplier who explicitly threatens us.”

Although oil has been the prime focus of attention in recent weeks, as the EU has sought to develop a policy of ensuring the complete termination of all Russian oil imports, the major problem—in pure energy terms—concerns gas. The bottom line is that oil is a fungible commodity that can be transported in a variety of ways and via a host of intermediaries. So long as oil is available from alternative sources, it can be delivered by pipeline, marine tanker, rail, or road to final users or, of course, by a combination of such facilities. Even in the case of Hungary, which has made the most pressing

pleas for exemption from the EU’s intended boycott of Russian oil, ways can be found to deliver alternative supplies to the Hungarian market.

But gas is different. It requires more complex infrastructure to produce, transport and deliver, while a total cut-off of gas has more serious consequences for urban communities and industry than a total cut-off of oil. If there is no oil, machines can be switched off and cars and trucks parked until fuel oil, gasoline, and diesel are again available. With gas, every appliance dependent on continuous availability of gas needs to be checked before a gas supply network can be re-started, and that can take many, many months.

This is a key reason why EU energy officials are worried about their gas storage levels. The EU came out of last winter with levels substantially lower than the previous five years, not least because Russia’s Gazprom filled up much less of its own EU facilities than usual. Since then, with

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the LNG market easing slightly and LNG flowing into Europe, by mid-May 2022 storage levels were above the level of mid-May 2021 (39 percent full vs 33 percent full), although they were still far below the levels seen in mid-May 2020, when they were 67 percent full. The relatively low current levels ensure

that storage will remain a key focus for both the market and anxious politicians worried about the impact of potential supply shortages on their constituents at a time when summer stockbuilding is required to cope with increased demands in the winter.

The EU’s immediate gas problem is simply that Russia is its largest single supplier. In 2021, when EU consumption amounted to 379.9 bcm, the EU imported no less than 145 bcm of gas from Russia. In practice, although the figures remain imprecise, the EU Commission is currently planning to replace around 100 bcm of Russian gas this year. This is not an exact figure—and still less a target that will likely be

attained—but it does demonstrate the direction of the Commission’s gas strategy.

The figure itself is imprecise because it derives from a package of climate change-related reforms in July 2021 that aim to reduce EU emissions by 55 percent in 2030 and which, in its “Fit for 55” proposals, postulated a 30 percent reduction in fossil fields by 2030 and, specifically, the removal of at least 155 bcm of gas use by then, to which an EU statement added that nearly two-thirds of this effort could be accomplished in a single year.

That single year is now here. And while there was no specific assertion in the 2021 statement that the gas cutback would be confined to Russia, there can be few who doubt that the conflict over Ukraine has almost certainly ensured that the entirety of the EU’s projected 100 bcm cutback will be at Russia’s expense.

But is this realistic? There are two main issues to consider. The first is Europe’s overall gas balance; the second is the differential level of suffering between countries

in Europe, a differential that essentially reflects the gulf between those countries for which LNG already plays a substantial role in their imports and those for which it does not.

### *The Overall Balance*

The EU’s intention to cut gas imports by 100 bcma within a year is certainly ambitious. But just how this might be achieved remains unclear. First, there is the question of how much gas can be substituted by other energy sources—such as renewables, nuclear, and even coal—and also by energy saving. The EU seems to think that this can replace around 35-40 bcma of gas consumption, although both the precise targets and the means to accomplish this have yet to be published.

Secondly, around 30 bcma of new LNG capacity is expected to come online by the end of this year, as a result of projects initiated years before the Russian invasion of Ukraine.

Thirdly, around 9-10 bcma of new pipeline gas from the Caspian could

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be made available to improve Europe's overall gas balance.

All this accounts for around three-quarters of the 100 bcma target; how the remaining quarter might be achieved remains far from clear. Moreover, while the rapid substitution of so much Russian gas would go a long way to help meet EU climate targets, it would not be sufficient to counter the real potential bombshell: what happens if Russia itself decides to halt all its supplies to the EU in response to EU military, financial, and political support for Ukraine?

### *The Challenge and Opportunity for Caspian Gas*

Then there is the fact that some countries, notably Spain and Italy (and, outside the EU, the UK) are already operating substantial LNG import terminals while Germany has only just started an emergency program to institute such facilities. Italian LNG import terminals are well connected to the rest of Europe, and, indeed, Greece also

has the potential to play a significant role in using its terminals to help balance regional gas supplies in the Balkans. But the pipelines connecting Spain to France have only limited capacity—and France could well prove to be an unexpectedly hard hit by any EU gas shortages, as its current reliance on nuclear power is threatened by corrosion in its reactors' pipes, which is substantially reducing their effectiveness.

The sheer constraints that the EU faces in ensuring it can both eliminate as much Russian gas from its system as possible and that it can ensure equitable deliveries of gas throughout the union puts a premium on whatever sources of pipeline gas can also be utilized to improve Europe's gas balance.

This is where the Caspian can play a crucial role.

As of mid-2022, there is only one country with sustainable surplus production capacity—and only one country with which it needs to cooperate if its gas is truly to have a positive impact on both the short- and long-term gas balance in Europe.

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*There is only one country with sustainable surplus production capacity: Turkmenistan, and the necessary partner is Azerbaijan.*

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The producer is Turkmenistan, and the necessary partner is Azerbaijan.

There are other countries, notably Norway, that can probably provide some short-term increase in pipeline flows by adjusting seasonal output, but this is not the same as a real month-on-month, year-on-year increase in output.

### *Three Proposals*

Turkmenistan has the ability to ease Europe's gas balance in three ways. All three result in increased gas flows to Türkiye. Two of them can do so without the need for additional infrastructure whilst the third requires construction of a 78-km line to connect an offshore platform in Turkmen waters with one in Azerbaijani waters, a project which could be accomplished within months of securing a final investment decision.

All three options are predicated on the concept that if the gas can reach Türkiye, then LNG going into Türkiye can be freed up for competitive sale to the rest of Europe, where there is a comfortable surplus of LNG regasification capacity.

Between them, the three options could deliver around 9-10 bcm of

pipeline gas to Türkiye. In 2020, Türkiye imported 15 billion cubic meters (bcm) of LNG, followed by 14 bcm in 2021; the latter represented 24 percent of its gas demand on the year. Replacing some of that with pipeline gas from the Caspian and freeing up the displaced LNG for EU markets to bid on would offer immediate supply.

Expanding the existing Turkmenistan-Iran-Azerbaijan gas swap constitutes the *first way* in which Caspian producers can improve Europe's gas balance. On 3 January 2022, Turkmenistan began delivering gas to northeastern Iran, apparently at a rate equivalent to around 4.0 to 4.5 bcma, with Iranian oil minister Jawad Owji saying two days later that the swap arrangement with Azerbaijan in northwestern Iran had also started. In practice, however, it appears that the amount of gas Iran is actually supplying Azerbaijan remains limited to the equivalent of 1 to 2 bcma.

At first sight, expansion of this swaps arrangement would seem to be the simplest way for Turkmen gas to ease Europe's energy balance, with any extra gas arriving in Azerbaijan either going to Türkiye directly or, alternatively, freeing up Azerbaijani gas for export to Türkiye. But there is one very

uncertain factor in all this: the state of the Iranian section of the Iran-Azerbaijan pipeline system. The pipeline was originally built some 50 years ago in the Soviet era and although it was designed to carry around 10 bcma, there is now a distinct possibility that old age and limited maintenance may well mean that its current capacity is no more than around 3 bcma.

The *second way* Turkmenistan can ease Europe's gas balance is by means of a putative Turkmenistan-Iran-Türkiye swap. Turkmenistan used to supply around 7-8 bcma to Iran, but halted deliveries to Iran on 1 January 2017 in pursuit of its claim that the Iranians owed it \$1.8 billion for previous deliveries. There have been indications that both sides wish to resolve this dispute and resume gas sales, so it is reasonable to presume that Turkmenistan is in a position to produce—and export—significant additional volumes of gas to Iran, or through Iran to Türkiye. Pipeline capacities for delivery to Iran and via the internal gas network in northern Iran appear to be more than adequate for the export of around 5 bcma of Turkmen gas to Türkiye, either directly or in the form of swaps. It is also worth noting that when the first 'Iranian' gas reached Türkiye via the newly-constructed Iran-Türkiye pipeline in December

2001, Turkish chemical analysts found that it actually consisted of Turkmen molecules.

Both of these projects are quite feasible and essentially require political rather than commercial support. They require the active support of Iran and that, in turn, raises questions concerning the willingness of the parties involved as well as those like the European Union, which stands to benefit from such swaps, to countenance the involvement of Iran. There is no guarantee that implementing such swaps will not get caught up in the far more complex negotiations concerning the question of Iran's nuclear aspirations and the future of the Joint Comprehensive Plan of Action (JCPOA).

The *third way* is the direct supply of Turkmen gas to Azerbaijan by means of a small-scale 78-km connector pipeline between a production platform in Turkmenistan's Magtymguly field and gas-gathering facilities in Azerbaijan's Azeri-Chirag-Guneshli oilfield complex.

This is the focus of a project with which the author is personally engaged and, indeed, much of the rest of this essay will largely deal with this project. However, the concepts of a Trans Caspian Connector and

of the expansion or initiation of swap arrangements should not be considered as part of an either/or choice. Rather, it should be assessed in the context of their potential contribution to a both/and solution to the question of how best to utilize Turkmen gas to improve Europe's current energy balance.

### *The Trans Caspian Connector Project*

This project is being developed by an American company, Trans Caspian Resources—and the core idea behind this project is very simple. Malaysia's Petronas Carigali is currently producing about 5 bcma at its Magtymguly field off Turkmenistan's Caspian coast. This gas is then transported onshore to Kiyanly, where some of it is used as feedstock for Turkmenistan's petrochemical industry, notably a \$3.4 bn polymer plant and the nearby Garabogaz urea plant, but where much of it is simply flared.

This means that at a time when the European Union is looking both to augment gas supplies and to reduce fossil fuel emissions, the Trans Caspian Connector project would actually serve both objectives. In addition, the project is equally aligned with the Turkmen Government's focus on reducing

flaring, venting, and leaking, which currently account for the equivalent of around 7.1 bcm of wasted gas a year. Turkmenistan's new president, Serdar Berdimuhamedov, stressed environmental issues when he addressed the COP26 Climate Change conference in Glasgow in November 2021 in his previous role as Deputy Chairman of the Cabinet of Ministers of Turkmenistan and announced that "Turkmenistan plans to achieve zero growth in greenhouse gas emissions by 2030." He added: "Turkmenistan at the national level pays special attention to reducing methane emissions, and in this regard welcomes the new initiative Global Methane Commitment, adopted within the framework of this high Forum."

Gas from Magtymguly can easily be transported westwards, where it would be able to tap into commercial markets and contribute to Europe's gas balance either directly, by shipment through the original SCP, or indirectly by supplying gas to the Azerbaijani domestic market while Azerbaijan's own gas is freed up for delivery to Türkiye. Azerbaijani sources have said that such a line could be operational within four to six months of it being approved, and that the cost would be likely be in the \$300-\$500 million range. Some of the gas would likely remain in Azerbaijan, since spare capacity in

the SCP is limited to a maximum of 4 bcma while the ability of the SCP-X to carry anything extra has yet to be established.

Technically, laying the line should pose few problems. Magtymguly is closer to Azeri-Chirag-Deepwater Gunashli (ACG) oilfield than it is to the Turkmen coast, and plenty of pipelines have already been laid in the area., though not across any putative boundary lines separating Turkmenistan’s operational areas from those of Azerbaijan.

Two studies, both financed by the U.S. Government, have demonstrated that pipelines for delivery of large volumes of natural gas and oil across the Caspian Sea from Turkmenistan and Kazakhstan to Azerbaijan are technically feasible. One was conducted in 1999, at a time when PSG International (a joint venture of Bechtel and GE Capital Structured Finance Group) and the Anglo-Dutch Shell Group were seeking to develop a full-scale 30 bcma

Trans-Caspian Gas Pipeline (TCGP). The second was published in 2011, and though primarily concerned with the development of a pipeline to carry Kazakh oil to Azerbaijan, it is relevant to the current issue since it concluded that the best route would pass through Turkmen waters before entering Azerbaijani waters in the general vicinity of the proposed Trans Caspian Connector.

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In addition, Azerbaijan’s state gas company, SOCAR, from around 2015 onwards, undertook sustained efforts for several years to secure a supply of Turkmen gas to ameliorate gas shortages in its domestic market, since output from its giant Shah Deniz gas project is almost entirely committed to exports. While these failed to secure direct pipeline deliveries, there was never any suggestion that this was because of technical problems in actually laying the line. Ultimately, of course, they helped to deliver the November 2021 Turkmenistan-Iran-Azerbaijan swap agreement.

One issue, however, that still has to be addressed is the question of the optimum connection to Azerbaijani facilities. BP operates both the ACG oilfield complex and the giant Shah Deniz gas field. Both have extensive gas gathering facilities. A connection to ACG, rather than Shah Deniz, is logical, for two reasons. Firstly, the route is shorter, around 78 km as opposed to 112 km; secondly, since ACG is currently operating at roughly half its originally planned one million barrel-a-day production capacity for oil, there should be spare capacity in the pipes used to gather associated gas from the fields. But how much spare capacity there is has yet to be determined.

Various supply factors also need to be borne in mind. The Turkmen industries at Kiyarly would still need gas supplies, but there are other fields producing gas in the region and, indeed, in 2015 Turkmenistan commissioned its 30 bcma capacity East-West pipeline linking the natural gas network at Shatlyk in eastern Turkmenistan to the Belek compressor station near the Caspian coast. Moreover, Petronas

has said previously that it would not find it difficult to ramp up production at Magtymguly if the markets justified such action. Although Petronas originally signed a 25-year production sharing contract for Magtymguly in 1996, this was subsequently extended with Malaysia’s Prime Minister Mahathir Mohamad, saying at the end of a visit to Ashgabat on 28 October 2019 that President Gurbanguly Berdimukhammedov had mentioned the possibility of a 10-year extension to 2038.

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The key advantage that Turkmenistan possesses is that it is able immediately to provide gas for both the swaps and for the Trans Caspian Connector project, not least because it is currently developing the supergiant Galkynysh field—the world’s largest onshore reservoir with audited reserves of at least 14.2 tcm and possibly as high as 21.2 tcm. It is also in a position to take advantage of concluding the necessary agreements to initiate such projects to demonstrate its ability to be a reliable partner for Europe when it comes to longer-term deliveries.

In general, the issue of how Europe will cope with its long-term supply problem is beyond this paper, not least because so much depends on how much emphasis the EU will place on the need to reduce reliance on fossil fuels as quickly as possible in order to tackle the very real threat of global heating. But if there should be a need for Europe to import more gas in a longer-term framework, then it is important to note that the Caspian constitutes an obvious source for such supplies. The reason is simple: the development of the \$40 bn Southern Gas Corridor was largely predicated on the concept that its initial phase for the delivery of around 6 bcma to Türkiye and 10 bcma to European destinations beyond Türkiye would be followed by a second phase that would double the volumes for delivery to and beyond Türkiye.

This would be a multi-billion-dollar program because, while it will not require much new actual pipe, it will need expensive compressors to increase the volumes that can be transported through the existing pipes.

Moreover, the timeframe for such an expansion is not clear. Some industry sources suggest it could take as long as four years while others think that political pressures might considerably

speed up the process. Before the Ukraine war, the assumption was that commercial considerations would determine SGC expansion, not least because the methodology for expanding the SGC is geared to a series of market tests designed to demonstrate whether there actually is a direct requirement for carriage through the SGC of a magnitude sufficient to justify the necessary increase in compression—either to the maximum projected throughput of 32 bcma to Türkiye and 20 bcma onwards to Italy, or for some intermediate volumes.

But there is now real political pressure being put on the SGC partners to see both how fast the system could be expanded and what extra sources of gas could be harnessed to justify such an expansion. Turkish sources say that the presidents of Türkiye and Azerbaijan have already discussed the possible expansion of SCP-X and TANAP based on an increase in Azerbaijani deliveries, with follow up talks conducted by their energy ministers. But Azerbaijan has only a limited ability to ramp up production in the near term (more on this below) and Türkiye may have already asked Azerbaijan to consider how Turkmen gas might be brought into the picture. The Turkish sources add that Türkiye,

Azerbaijan, and Turkmenistan are all looking at the need to assess how the SCP-X and TANAP could be expanded in order to carry around 5-8 bcma of Turkmen gas in addition to whatever additional gas Azerbaijan itself could contribute. The Turkish side is also assessing whether increased gas flows from the Caspian might utilize the existing BOTAS system in Türkiye, since the main East-West trunkline currently has more than 10 bcma of spare capacity.

The significance of such discussions is that they are focusing on what is practical in the near-term. They implicitly acknowledge the impracticality of focusing on the long-standing concept of a massive 30 bcma Trans Caspian Gas Pipeline, since this would not only cost around \$5 billion to build, but (based in the costs incurred in constructing the SGC) would also require more than \$20 billion in additional pipeline infrastructure to carry the gas onwards from Azerbaijan to European markets.

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At present, Azerbaijan is responsible for all the current gas input into the first phase of the SGC. But it could well take the best part of a decade for Azerbaijan to increase its gas production to a level where it could provide a further 16 bcma to fill an expanded SGC. This is the opening for direct input of Turkmen gas into the SGC. Moreover, the delivery of 5 bcma of gas through the Trans Caspian Connector would serve as proof-of-concept that gas can be delivered from one side of the Caspian to the other, thus paving the way for an expansion of the Trans Caspian Connector.

Such an expansion, which Trans Caspian Resources considers could result in flows of between 10 and 12 bcma in around 18 months, would obviously require full coordination between the Turkmen authorities and both Azerbaijan and the SGC. But the SGC is designed for expansion, so any increase in Turkmen throughput can both be coordinated with SGC expansion and help justify such expansion.



The SGC partners actively favor expansion, since this improves the system's commerciality, but face problems with regard to additional input beyond the final ramping up of Shah Deniz Phase 2 output forthcoming in summer 2022.

### *Azerbaijan's Place in the Caspian/Europe Equation*

Azerbaijan is currently the sole provider of Caspian gas to Europe, and it has significant gas reserves of its own, so it might seem surprising that the focus in this paper is more on its role as a partner to Turkmenistan rather than as a supplier in its own right. Essentially, that is because it will take time to bring many of Azerbaijan's gas projects to fruition whereas Turkmenistan already possesses what is, in effect, stranded production capacity.

Right now, what Azerbaijan offers is reliable transit—as it has demonstrated in handling millions of barrels of Turkmen and Kazakh crude through the Baku-Tbilisi-Ceyhan pipeline over the

last 16 years—coupled with proven leadership in developing a project that is not only proving crucial to European energy security but is also one of the world's biggest energy infrastructure projects, namely the Southern Gas Corridor.

So, the key role for Azerbaijan in the immediate future is to provide the glue that sticks this entire project together and thus enables Turkmenistan to play a significant role in rebalancing European gas imports. Put bluntly, without Azerbaijani assistance—notably in partnering with Turkmenistan in terms of both arranging for trans-Caspian deliveries and developing the appropriate commercial framework for such deliveries—there can be no lasting Turkmen contribution to European energy security.

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Azerbaijan does have additional gas that it can supply in the relatively near-term. President Ilham Aliyev told the author on 29 April 2022 that the Absheron field, currently being developed by France's Total, would come online this year.

But initial production is slated to be just 1.5 bcma and it looks like it will be a few years before a second phase of development yields an anticipated 5 bcma.

There are several other ongoing projects, notably at the Karabagh, Umid, Babek, and Shafaq-Asiman fields. At Karabagh, Norway's Equinor is expected to start production in 2025, with targeted output of 1.5 bcma. But progress at Umid (intended to produce 1.5 bcma) and Babek (intended to produce 3-5 bcm) has been slow and it is not clear when they will enter full production. As for the biggest of these fields, Shafaq-Asiman, three exploration wells have been drilled and expectations are that it will eventually produce around 8 bcma. However, the operator, BP, is still evaluating the discovery of the field's substantial but deep gas/condensate reservoir, and production still looks to be some years away.

As they enter production these fields will enable Azerbaijan to contribute to any expansion of the Southern Gas Corridor. But they cannot help resolve the EU's immediate problems, while Azerbaijan's own domestic gas requirements mean they will not be sufficient to fill an expanded SGC on their own. For that to happen, Azerbaijan will have to

see the development of such major reservoirs as the deep level of gas under the ACG oilfield complex or a further production phase at the giant Shah Deniz gas field.

Thus, while Azerbaijan can clearly play a major role in the long-term expansion of the SGC and supplies to the European Union, and while it is contributing directly to resolve the problems faced by one EU country in particular, Bulgaria, its main role right now is to partner with Turkmenistan to enable Caspian gas to maximize its contribution to Europe's gas imbalance.

### *Some Simple Bottom Lines*

One key point should be stressed: while SGC expansion continues to constitute a key element in any longer-term strategy to reduce EU reliance on Russian gas, it does not solve the immediate problem. For Europe, Azerbaijan, and Turkmenistan there are some very clear bottom lines.

For Europe, non-Russian pipeline gas is an integral part of the solution, and the only readily-available source of such gas is the Caspian basin. The EU Commission needs to give a clear green light that it will fast-track both political and regulatory authorization for measures that

would enable Caspian producers to improve the EU’s gas balance, both immediately and in the longer term.

For Azerbaijan, it needs to partner with Turkmenistan to introduce a new source into the regional supply equation and lay the groundwork for a longer-term consolidation of its own role as a highly reliable gas supplier to Europe.

For Turkmenistan, there is an opportunity now to help the European Union overcome its immediate

supply shortage problems. That could—perhaps should—lead on to the prospect of more substantial exports to the West, including direct sales to the EU. However, the converse is also true. Failure to take action immediately—failure to send a clear signal that it is ready to play its part in developing a Trans Caspian Connector—makes it almost impossible to conceive that any subsequent project to develop major Turkmen gas exports to the West will secure the necessary corporate or state backing. **BD**

### Azerbaijan’s Gas Deliveries to Bulgaria

One related question that needs to be addressed is Azerbaijan’s acceleration of gas deliveries to Bulgaria. On 27 April 2022, the same day that Russia announced it was terminating gas deliveries to Bulgaria, Prime Minister Kiril Petkov said his country was looking to the opening of the Inter Connector Greece Bulgaria (IGB) to alleviate gas shortages.

“IGB’s entry into service will become an actuality at the end of June, and Azerbaijani gas will be running through it starting in September. This will mean lower prices and greater energy independence for our country,” Petkov said. The IGB will enable Bulgaria to receive Azerbaijani gas from the Southern Gas Corridor, to which an interconnector is already connected, and also gas from the new Greek LNG receiving terminal at Revithoussa.

The pipeline will initially operate at around one bcma, although it is designed to carry 3 bcma. Azerbaijan is expected to supply the initial 28 mcm/day (the equivalent of 1 bcma) via the SCP-X line to Türkiye and its counterparts in the SGC, the TANAP line across Türkiye, and the TAP line in Greece.

What is not clear is whether BP’s statement that it is looking at prospective ways of optimizing the existing system to increase capacity by around 1 bcma specifically relates to the need to carry this Azerbaijani gas to Bulgaria or whether that volume has already been factored in to SGC operations, and that what is now envisaged is an ability to carry an extra single bcma over and above previously planned deliveries to Türkiye, Greece, and Italy and the imminent new delivery to Bulgaria.



### Continuing to support our communities



#### Build Your Future project

Over 300 students from disadvantaged families including 5 people with disabilities have received support in preparation for university admission and social integration

90% of the students have been admitted to higher educational institutions



#### Sweet Gold project

530 small household businesses established in our pipeline communities

110,000 nectar trees planted for bee-breeding

73 tons of honey extracted by beneficiaries in 2018-2020, with total sales of over \$500,000

