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IRAN'S ENERGY INTERESTS IN THE CASPIAN: THE WINDOW OF LOST OPPORTUNITIES[1]

For 15 years now Iranian experts have been outlining Tehran's grand designs for engagement with republics in Central Asia and the South Caucasus, building plans for joint energy and transport projects, and proposing integration strategies. But being realists, they also took into account the factors that could stymie those plans, giving rise to the pragmatism of the Iranian policy towards the newly independent states. This pragmatism is based on careful analysis of all policy factors, opportunities and limitations. It links Iran's interests in Central Asia and the South Caucasus to domestic economic and social policy goals – including development of the northern and eastern parts of the country, and modernization of its energy and transit industries. Iran is still pursuing this pragmatic course, but in recent years this policy has been facing serious difficulties. Its interests in the Caspian region have become hostage to other domestic and international developments. The wars in neighboring Afghanistan and Iraq have shifted the geopolitical situation, the pressure of American and international sanctions has increased, and Iran's own ideologically-driven regime is stubbornly keeping the country in an international isolation. Meanwhile, other nations of the Caspian region have already set their policy goals, and the role Iran has been assigned in their plans is fairly limited.

Right now, every Caspian nation shares the common interest of drawing Iran into a system of economic, political, cultural and other ties in Central Asia and in the Caucasus. They would like to see the country become part of a system of interdependencies in the region, which cannot function properly without Iran.

Tehran is no longer striving to become the lead player on the world's energy arena. But it is still interested in increasing its share of the market for oil and gas production and transit, which necessitates a more active role in the Caspian. Other interests include winning a share of the European market for Iranian gas, and turning Iran into a regional energy transit node; securing a role for itself in building and operating a united regional electricity grid in the Middle East; and channeling the dividends of international activity into resolving the structural problems of the Iranian energy sector.

ANY RESULT IS A GOOD ONE

Like any other Caspian nation, Iran is interested in developing the region's oil and gas reserves. But unlike the four other Caspian states, Iran has not actually made too many practical steps in this direction. One of its key policy goals here, pursued by the reformist and conservative administrations alike, is *saving face*, especially on the domestic front. But even that is not the whole story. Unlike the other Caspian nations, Iran does not stand to lose anything it may have had before the collapse of the former Soviet Union, whatever the outcome of the division of the Caspian Sea – simply because it has never had any serious oil or gas exploration program in this region in the first place.

The struggle to secure access to the resources of the Caspian is not nearly as crucial for Iran as it is for its Caspian neighbors. For Azerbaijan, it is a matter of life and death because the region's oil and gas account for some 40–50 percent of the country's revenue.[2] For Turkmenistan and Kazakhstan, it is a key pillar of their economies. But Iran's economy in its current shape does not depend on Caspian oil and gas. Any Caspian revenue would be nice to have, but it's far from being the top of the agenda. Western estimates suggest that Iran's sector of the Caspian holds only a tiny fraction of the country's total energy wealth – less than 0.1 percent. Even the most optimistic estimates put the share of the Caspian in Iran's total oil reserves at just 10 percent. The figure for Azerbaijan is 100 percent, and for Turkmenistan 83 percent.[3]

Geography and geology have cast Iran a poor lot in terms of its Caspian energy prospects. It owns only a tiny sector of the southern Caspian, and even that is a deep-water area, where no workable reserves of oil or gas have been found so far. Its neighbors are in a very different situation. In addition to the large oil and gas fields already found in their sectors of the sea, they also have the financial might of the big multinationals lining up to invest serious sums of money, and the backing of the West, as well as Russia's flexible position. Iran, on the other hand, can count only on its own fairly limited financial resources.

All that doesn't mean, however, that Iran has no real interest in the energy wealth of the Caspian. Ever since the issue of dividing the sea/lake's mineral wealth and drawing up its new legal status was put on the agenda, Iran, together with Russia, has been advocating joint use of the sea and its resources (condominium). It has been proposing to set up international bodies and companies to develop Caspian oil and gas fields. The other three nations were against this approach. Turkmenistan (whose position has been the least consistent) and Kazakhstan want the Caspian to be divided according to the international Law of the Sea, which would give each nation its own territorial waters and exclusive economic zones. And Azerbaijan has simply designated the Caspian Sea as a lake in its constitution. It has claimed its own national sector of the Caspian and declared it part of its sovereign territory.[4]

Russia has had to make concessions to its closest neighbors – it is now advocating the idea of dividing the seabed between the Caspian nations.[5] In 1998–2003, Russia, Kazakhstan and Azerbaijan divided the northern part of the Caspian according to the principle of "separate seabed sectors, shared water."[6] The seabed was divided along the median line (a line equidistant from the territorial borders of the three states). A Russian-Kazakh agreement of 1998 introduced the term "modified median line," which "includes areas that are not equidistant from the basis lines and are defined taking into account islands and geological structures, as well as special circumstances and expenditure on geological exploration"[7] – that is, a line that deviates from the median line and is subject to a separate agreement between the parties involved.[8] The three nations had thereby set the principle of dividing the seabed and the sea's mineral wealth. The idea of a modified median line leaves a lot of room for negotiation and compromise.[9]

Tehran has not formally recognized the *Northern Agreements*, stressing that "any change of the legal regime that governs the use of the mineral resources of the Caspian requires an agreement of all five Caspian nations."[10] It did however change its initial stance, and now advocates an equal five-way split of the Caspian seabed – 20 percent to each side. That sets Iran on a collision course with Azerbaijan and Turkmenistan, the two nations Tehran would do well to turn into allies if it wants to defend its interests in the Caspian.

Azerbaijan and Turkmenistan argue that the Iranian sector should be limited to the territory south of the Astara (Iran)-Gasan-Kuli (Turkmenistan) line,[11] which these two countries consider to have been the *de-facto* border between the former Soviet Union and Iran.[12] That would leave Iran an 11-percent share of the seabed. If the principle of the median line is applied, the lines dividing the Azeri, Iranian and Turkmen sectors converge farther north, leaving Iran a 13.8-percent share.[13] But Tehran wants the whole 20 percent. So what is the practical difference between 11, 13.8 and 20 percent? Compared to the first figure, the second is not much better for Iran – it gives it only a little more territory for oil and gas exploration. But the step-up from 13.8 to 20 percent means that three oil fields – Alov, Araz and Sharg – fall into the Iranian sector.

In July 2001, Iran demonstrated that it is prepared to take decisive action to defend its claim to the three oil fields, and prevent any unilateral action by Azerbaijan. In 1998, Baku signed a pro-

duction sharing agreement with several oil multinationals to begin the exploration of Araz, Alov and Sharg. Azerbaijan's state-owned *GNKAR* oil company retained a 40-percent share in the venture. The operator, *BP*, received a 15 percent stake, as did Norway's *Statoil* and America's *Exxon Mobil*. Turkey's *TPAO* got 10 percent, and Canada's *Alberta Energy* 5 percent.[14] The three oil fields are estimated to hold 6.6 billion barrels (900 million tons) of oil[15] between them. *GNKAR* and *BP* soon began joint exploration of the area, which continued until 2001.[16] Preliminary results suggested that the oil deposits there are not lying too deep, and there is a very good chance of finding commercially viable reserves.[17] But in July 2001, Iranian coast-guard ships staged a show of force and drove the Azeri exploration vessels out of the area.[18] *BP* immediately put all work in the area on hold as hasn't resumed it ever since, saying it will not continue until all the coastal states reach an agreement on demarcation – though exploration continues outside the disputed zone.[19]

All this means that the exploration of one of the most promising oil fields of the Caspian has been kept on hold for the past eight years. The seabed of the southern part of the Caspian has not yet been divided. Negotiations are proceeding, albeit slowly, and Iran is still standing its ground. It cites the Soviet-Iranian agreements of 1921 and 1940,[20] which did not define the sea border between the two countries. Tehran is therefore refusing to consider the Astara-Gasan-Kuli line as an official or informal border. Differences also remain between Azerbaijan and Turkmenistan, and negotiators have so far failed to find a formula for the division of the southern Caspian. But there has been a degree of rapprochement between Baku and Ashgabat following Saparmurat Niyazov's death. The new Turkmen president, Gurbanguly Berdimuhamedow, visited Baku in May 2008, and in November 2008 Azeri leader Ilham Aliev travelled to Ashgabat for a trilateral meeting with his Turkmen and Turkish counterparts. Azerbaijan and Turkmenistan are trying to hammer out an agreement on the median line in the Caspian, and once that is sorted they can proceed to the issue of the disputed oil fields. They are also discussing the possibility of pooling their oil exploration efforts and using joint transport infrastructure for their sea-shelf oil fields.[21] Azerbaijan is aspiring to become the regional transit node and the main route for energy streams from the eastern part of the Caspian, including Turkmenistan's gas fields, into Europe. These and other common interests could lead to a definitive agreement between Azerbaijan and Turkmenistan on dividing the Caspian oil and gas fields.

If that happens, Iran could be left on the sidelines of the talks and face a consolidated position of Azerbaijan and Turkmenistan – and quite possibly a united front of all four post-Soviet nations in the region. But Iran is also hoping to become a regional transit route. For this and other reasons it would like to remain on good terms with Azerbaijan and Turkmenistan, which for their part also want to avoid confrontation.

Iran has lately been softening its position at the negotiations, although it was as far back as 2003 that the Russian side said any talk of an equal five-way split is pointless.[22] Tehran has indicated that for the sake of reaching an agreement it is ready to abandon the *red lines* it was previously defending. Speaking in December 2007, Iranian Foreign Minister Manouchehr Mottaki dismissed the radical idea that Iran should get 50 percent of the Caspian. The idea was based on the notion that since the former Soviet Union and Iran had joint custody of the Caspian Sea, half of this *common property* must now go to Iran, while the other parties can divide the remaining half between them as they see fit. Mottaki said the claim was unrealistic, and the Iranian share of the sea had never exceeded 11.3 percent. He added that the legal regime of the Caspian Sea was on the agenda of Iran, Turkmenistan and Azerbaijan talks, and that it would be determined in a fair manner and based on exploitation of the sea's resources.[23] The minister's apparent message to the Iranian public was that any agreement should be viewed as a positive outcome for Iran, if not an outright victory, because the country had never controlled much of the Caspian anyway.

One possible strategy to overcome the differences over the division of the south of the Caspian and guarantee Iranian presence there would be for Iran to secure a share in oil and gas exploration projects outside its claimed sector. Access to the resources of the Caspian does not just translate into having a national sector of the seabed, which may yet turn out to have little or no workable deposits. No less important is attracting foreign investment and participating in production sharing agreements. Iran itself does not have a lot of money to invest, and what little it does have is

channeled mostly into the oil and gas fields in the south of the country – but Tehran has also demonstrated interest in some Caspian projects, such as the second stage of the Shakh Deniz gas field. A subsidiary of the *National Iranian Oil Company (NIOC)* now owns a 10-percent stake in the project's first stage. The Iranian deputy oil minister, Hossain Shirazi, said in January 2009 that Iran intends to invest a further $1.7 billion into the second stage of the project.[24] But so far, that is the only precedent of Iran participating in the development of the Caspian's mineral resources.

However, in addition to the Caspian Sea shelf, Iran has shown interest in dry-land projects as well, such as the gas fields of Turkmenistan. On January 4, 2009, Iranian Oil Minister Gholam Hussein-Nozari announced the signing of a contract with Ashgabat to develop a gas field there with a projected annual output of 10 billion cubic meters. The announcement did not specify which particular field it was.[25] Iran's involvement in projects in Turkmenistan proper, as well as possible transit of Turkmen gas via the Iranian territory could speed up the progress of the Caspian Sea shelf talks between the two countries.

Nevertheless, Iran has a fairly limited set of instruments in the Caspian. Another attempt to use force, like in 2001, could create more problems for Tehran than it solves. The Caspian nations have also committed themselves to not using force against each other in a declaration signed during the second Caspian summit hosted by Iranian President Mahmoud Ahmadinejad in Tehran on October 16, 2007.[26]

As part of its strategy to strengthen its position at the talks and demonstrate its presence in the Caspian, Iran is hoping to launch its own energy exploration program in the south of the sea, especially in areas that are disputed with Azerbaijan. Until the borders of the national sectors are agreed, a country that makes an oil or gas discovery somewhere in the Caspian will have a serious argument at the talks in favor of pushing the border line in the desired direction, even if the discovery is outside its national sector of the sea. For example, under the terms of the Russian-Kazakh agreement, 50 percent of the cost of exploration will be reimbursed in such an event, and the disputed oil and gas blocks will be divided 50–50.[27] Iran wants to copy its neighbors' strategy – stake its claim to the oil and gas fields it finds, and then talk. But unlike the rest of the Caspian nations, Iran has not actually launched this program yet.

Until the late 1990s, Iran did not have any serious exploration program in the Caspian. The *Khazar Exploration and Production Company (KEPCO*), a regional subsidiary of *NIOC*, was set up in 1998 to explore for oil and gas in Iran's northern provinces and the southern Caspian. The company reports that in December 1998-November 2001 it carried out a large oil and gas exploration program in cooperation with foreign companies in the southern part of the Caspian Sea, all the way north to Apsheron peninsula, and found 46 potential sites for *NIOC* to explore further.[28] In 2003, Iran published a report claiming that "the findings of seismic exploration by *Royal Dutch Shell* in the *de-facto* Iranian part of the Caspian Sea suggest the presence of at least 10 billion barrels of oil there."[29] It is not completely clear what is meant by "the *de facto* Iranian part", but that claimed sector is probably larger than 11, 14 or even 20 percent of the Caspian. Since then, Iran's estimates of its oil reserves in the Caspian Sea have become even more upbeat. A 2007 report based on the findings of the Iranian parliament's research institute cited the figure of 15 billion barrels,[30] and in 2008, the first deputy head of *NIOC*, Mohammad Javad Asemipour spoke about 32 billion barrels "in the southern part of the Caspian."[31]

Estimates by Russian and Western experts are far less optimistic. S. Zhiznin cites a 1997 U.S. Department of State report saying that if the Caspian is divided into sectors using non-modified median line, Iran will have no proven oil reserves in its sector at all, while the undiscovered reserves there could reach 1,632 million tons (about 12 billion barrels).[32] America's Energy Information Agency (EIA) estimates proven oil reserves in the Iranian sector of the Caspian at 100 million barrels, and potential reserves at 15 billion. These estimates do not vary too much, putting the figure of potential oil reserves in the Iranian sector of the Caspian at about 10 percent of the country's total oil wealth (thought to be 138.4 billion barrels[33]).

Clarifying the actual size of the oil reserves in the southern Caspian requires deep-sea exploration, but Iran lacks the expertise and technology needed for such a program. *NIOC* is therefore trying to sign exploration agreements with foreign companies. It has set up a subsidiary called *North Drilling Company*, which owns two oil platforms in the Caspian built by Iran's

SADRA company at a shipyard not far from the Iranian Caspian port of Neka. The first platform, a jack-up drilling rig called *Iran Khazar*, was built in 1996 by *SADRA* with the help of Finland's *Rauma-Repola.*[34] The rig can work at water depths of up to 91 meters, with the maximum drilling depth of 7,620 meters.[35] But these specifications are not enough for the southern Caspian, so in 2001 Iran ordered the construction of the second rig, *Iran Alborz*, built by *SADRA* in cooperation with Sweden's *GVA Consultants*. The rig, designed for drilling in the southwestern part of the Caspian, can work at water depths of up to 1,000 meters.[36] It was expected to be complete within 32 months, i.e. by 2004,[37] but the date was pushed back first until 2006 and then until 2008. In June 2008, the Iranian oil minister said that launching *Iran Alborz* had become a national priority.[38] But in September it turned out that *SADRA* had not finished the construction of two auxiliary ships need to service the platform, and Iran was thinking about buying two tug boats to tow the rig. Later reports said the rig would be launched on February 10, 2009, the 30th anniversary of the Islamic revolution.

China's Oilfield Services Ltd (*COSL*) will be the operator of the rig – a three-year contract to that effect was signed in 2006. The Chinese company offered the best financial terms, and politically both countries are interested in developing cooperation in the region.

Negotiations have been under way since 2008 with *Petrobras*[39] about the Brazilian oil giant's participation in oil and gas exploration in the Caspian. As of late spring 2009, Iranian companies have yet to begin full-scale exploration in the southern Caspian, although they say exploration plans have already been finalized. The collapse of the oil prices in late 2008-early 2009 will obviously force the world oil producers, including *NIOC*, to trim their investment programs, which will further delay the beginning of full-scale exploration in the Caspian.

The bottom line is, Iran has not yet made a start on exploring the oil and gas wealth of the Caspian Sea. As time goes by, Tehran will find it even more difficult to extract concessions from its neighbors, three of which have already divided the northern part of the sea between them. The Iranian leadership is well aware of this, and it is showing interest in cooperation with the other players. Its main objective is to secure Iran's participation in oil and gas production.

WESTERN CORRIDOR

Iran has three main objectives in Central Asia and South Caucasus energy transit. The most important one in terms of the ambition, as well as political and economic significance, is turning Iran into a regional energy transit hub. The shortest and the most economical route for bringing oil and gas from the former Soviet republics in the Caspian region to the world markets is via Iran. The Iranian authorities and experts have been banging on about it for two decades. The second objective is to develop new routes for Iran's own energy exports and conquer new energy markets. The third is to secure reliable oil, gas and electricity supplies to keep in business the refineries in northern Iran, bring gas to remote Iranian provinces and keep the country well supplied with electricity all year round. All three objectives are interdependent, and must be viewed as a whole.

Iran's geography makes new energy transit routes a more realistic and promising pursuit than oil and gas exploration in the Caspian. Over the past 15 years Iran has managed to secure oil and gas supplies from Kazakhstan and Turkmenistan for the needs of its northern provinces, and to start selling its own gas to the Caucasus. But it has failed to become an important energy corridor, or a transit route for the Caspian and Central Asian energy flows to the world markets – and its chances of securing that role for itself are looking increasingly slim.

Iran's interests in oil transit are actually quite different from its gas transit goals. Being one of the world's largest oil producers (ranking fourth or fifth in 2005–2007), Iran already has an established market, supply routes and transport infrastructure for its oil exports. The situation in the Iranian gas industry is quite different. Although Iran has the world's second-largest gas reserves (28 trillion cubic meters, or 16 percent of the world total), it had been a net importer of gas until 2007. It now has big plans for ramping up its gas production and exports. In addition to increasing production, processing and transit capacity, Tehran will need to find a market and transit routes for its gas. So whereas the goal in oil transit is increasing the flows from

the Caspian oil fields via Iran, the key task for the Iranian gas industry is finding the best technical solution and the most economical route for bringing Iran's own gas to the world markets.

Iran has two key objectives regarding oil transit in the Caspian. The first is to take part in bringing oil from the Caspian region to the world markets and increase transit via the Iranian territory. The second is to secure oil supplies for Iran's new refineries in the north of the country, as well as the existing ones that are now being upgraded. Iran has also been thinking about pumping its oil to China via Central Asia, but nothing specific has been decided so far.

Table 1. **Iran's share in oil exports and transit from the Caspian nations, 2007, million tons.**

	Oil exports (total)	Oil exports from Caspian fields	Oil exports to/ via Iran	Iran's share in oil exports from Caspian countries, %
Azerbaijan	34.3	34.3	0	0
Kazakhstan	56.5	51.8	3.4	7
Turkmenistan	3.5	3.5	3.2	90

Source: *Oil flows and export capacity in the Caspian Sea and Black Sea regions,* p.12; Energy Information Administration. Kazakhstan, http://www.eia.doe.gov/emeu/cabs/Kazakhstan/Oil.html

The first oil transit option is building new transit pipelines, as well as using the existing Iranian network. Back in 1993 it was expected that the Baku-Ceyhan oil pipeline would go via Iran instead of Georgia. The length of that route is about 1,000 km, compared to the 1,730 km of the route via Georgia. The pipeline would have passed through Azerbaijan's Nakhichevan exclave, resolving the problem of oil supplies to the autonomy. But due to instability in Azerbaijan, Western pressure and technical complications, the project was abandoned and Georgia was chosen as the new transit route.[40]

The prospects of another project, to bring oil from Kazakhstan and other Caspian producers to the world markets via a pipeline (or a network of pipelines) in Iran, are also looking bleak. Two alternative routes are being proposed. The first is to build a pipeline from the oil fields in Kazakhstan to the Iranian coast of the Gulf of Oman via Turkmenistan. The second is to ship oil by tankers to Iran's Caspian port of Neka, from where it would be pumped to the Gulf of Oman port of Jask via a new pipeline.

The Neka-Jask pipeline proposal gained traction in the autumn of 2008 following the Georgian crisis. The president of the Kazakh gas company *KazMunayGas*, Kairgeldy Kabyldin, spoke in an interview about the virtues of the Iranian route as an alternative to Baku-Tbilisi-Ceyhan (BTC), made more risky by the events in Georgia.[41] There were reports in the Iranian media in November 2008 about the progress of the Neka-Jask project's planning stage. The length of the proposed route is 1,515 km, daily transit capacity 1 million barrels. The pipeline should be launched within 4 years,[42] by 2013, when one of Kazakhstan's largest oil fields, Kashagan, is expected to come on stream. But in October 2008, Kazakh Prime Minister Karim Masimov said that the proposal to build a pipeline together with Iran was not on the table, and Astana was instead looking into the possibility of ramping up the capacity of the *Caspian Pipeline Consortium (CPC)* and the BTC route, as well as building a new oil pipeline to China. The only area where Kazakhstan is prepared to work with the Iranians is ceding some of its Caspian oil and gas exploration rights to Tehran in exchange for access to Iranian oil fields in the Persian Gulf.[43] It appears that the leadership of Kazakhstan and its national oil company view the idea of building a pipeline via Iran as a possibility for a distant future, and for a very different political and economic situation. Meanwhile, Kazakhstan can use the hypothetical possibility of channeling its oil via Iran as a bargaining chip in its negotiations with Azerbaijan on building a Caspian transit system, or at talks with Russia on the *CPC*.

One Caspian oil transit project Iran has managed to pull off is the swap operations. Rather than actually being transported via the whole length of the Iranian territory, Caspian oil is delivered to Iranian ports on the Caspian Sea, and Iran then ships an equivalent amount of its own oil to customers from its Persian Gulf ports. The primary Caspian port for these operations is Neka;

the ports of Noshahr and Enzeli are also involved. The scheme's principal Persian Gulf port is Kharg Island. Oil from Neka is supplied to refineries in Rei (a suburb of Tehran) and Tabriz. Iran charges a swap fee of $1.5 to $2 a barrel ($12–16 a ton). The operator for the swap contracts is *Naftiran Intertrade Company* (*NICO*), a subsidiary of *NIOC*. The swap scheme was first launched in 1997, but at first Iran could not receive more than 50,000 barrels a day due to the lack of infrastructure. It was expected that the daily swap shipments would increase in several stages, first to 100,000 barrels, then to 370,000 and then to 500,000 at the third stage of the project, reaching eventually 1 million barrels.[44] The daily shipments rose from 50,000 to 150,000 barrels over the period of 2004–2008 following the expansion of the oil pipeline network in northern Iran, the launch of new pumping stations, modernization of ports and oil terminals, and upgrade of several Iranian refineries. *NIOC* and government officials say Iran is committed to increasing the volume of the swap operations,[45] but that is limited by the capacity of refineries in the north of the country. Iran now has a refinery in Rei (the Tehran refinery, capacity 250,000 barrels a day) and Tabriz (110,000 barrels).[46] There are plans to open a refinery in Neka by 2010 (projected capacity of 200,000–300,000 barrels a day), as well as several other refineries in Mazandaran and Khorasan provinces.[47]

By building the infrastructure in the north of the country Iran is trying to win more customers among the Caspian producers for its swap operations. Kazakhstan is the key supplier for the swap scheme – about 50 percent of all the oil shipped to Iran's Caspian ports (some 4 million tons annually) comes from there. But these swap shipments account for only 7 percent of Kazakhstan's total oil exports.

Turkmenistan, for its part, channels almost 90 percent of its oil exports via swaps with Iran. That is 3.2 million tons a year in real terms, making up 43 percent of the Iranian swap operations.

Winning Azeri or Russian custom will be more complicated. These two countries have other export routes already up and running, and until recently they have not been seriously considering the route via Iran.

Tehran had been counting on Azeri oil custom from the very beginning, but first shipments arrived only in August 2008, when two out of Azerbaijan's three export routes were interrupted. A stretch of the BTC pipe was blown up by the Kurdish rebels, while the Baku-Supsa pipeline was shut down as a precaution by its operator, *BP*, during the Georgian-Russian war. Baku was forced to channel some of its oil exports via Iran, but only until the BTC went back on line. On August 24, the Iranian energy industry news agency Shana reported that *GNKAR* had closed a deal with Middle East Petrol trading and export company to ship Azeri oil via Iran using the swap scheme (Azeri oil delivered to Neka in exchange for shipments of Iranian oil to Azeri customers via the Persian Gulf ports).[48] But the total volume of shipments was a mere 300,000 tons (2.2 million barrels), which is only about double the daily capacity of the BTC pipeline.

Russia's *Lukoil* began swap shipments to Iran in 2003–2004, following the opening of a new oil terminal in the town of Ilyinka, Astrakhan Oblast, in October 2003. The terminal's annual capacity is 2 million tons, but only 0.4 million tons was shipped in 2007.[49] *Lukoil* has more than 2,000 filling stations in the United States and is wary of sanctions, so it is careful about developing cooperation with Iran. There have also been some technical difficulties on the Iranian side, keeping the shipments volume down.

Nevertheless, Iran continues to build the infrastructure that could give it a major role in Caspian oil and gas transit. While the Iranian spending on oil production and exploration in the region has been meager, Tehran has been investing heavily in transit infrastructure and developing cooperation with its neighbors. In 2006, the capacity of its oil storage facilities in Neka was increased to 1.5 million barrels,[50] and the daily capacity of the Neka-Rei oil pipeline to 250,000 barrels.[51] But any further increase in the volume of the swap operations with the aim of reaching the 370,000 barrels a day target will require some other problems to be solved first, and a substantial new investment by the Iranians.

One of the bottlenecks is that none of the Caspian nations has a big enough fleet of modern tankers. Tehran is trying to fill that niche. Once it has the tankers it will be able to play a substantial role in oil production in the region. An Iranian tanker fleet would also be a powerful argument in favor of shipping the oil via Iranian ports.

Tehran does not have much time left to fulfill that ambition however – other countries have big plans to expand their tanker fleets too. Kazakhstan, the main Caspian oil producer, now has only three 12,000-ton tankers.[52] But it plans to have another 20 by 2012.[53] The Azeri fleet, which inherited almost all the Soviet tankers in the Caspian, has 41 tankers, including six big President *Geydar Aliev* type ships (13,500 tons deadweight).[54] The main Russian fleet serving the Caspian, *Volgotanker*, has almost 350 tankers, mainly the *Volgoneft* type ships (no bigger than 5,000 tons each).[55] But the company was declared bankrupt in 2008.[56] Turkmenistan is also assembling a tanker fleet. However, none of the Caspian nations has tankers bigger than 13,500 tons, whereas much bigger vessels of up to 60,000 tons are required to increase oil shipments.[57]

Recent media reports suggest that Tehran is determined to corner this market. In 2006 it approved plans to build six 63,000-ton tankers. Three of them will be built in northern Iran; Russia will get the order for the other three.[58] The Iranians figured that the alternative of building as many as sixty 5,000-ton tankers and the 10 new oil terminals in Neka they would require was unrealistic. A new offshore deep-water terminal connected by an underwater pipe to on-shore storage facilities will be built in Neka for the big new tankers.[59] Smaller ships will be built as well.[60]

Building a large tanker fleet and infrastructure in the north of the country could give Iran its first real instrument of securing a role for itself in Caspian energy transit. But it is not clear how these programs, conceived during a period of extremely high oil prices, will be affected by the ongoing economic crisis and the falling price of crude, Iran's main export. All of Iran's investment programs are funded by the numerous subsidiaries of *NIOC*, which is itself subordinated to the Oil Ministry. It could well turn out that *NIOC*, which has big plans for ramping up its gas production and exports, will be forced to redistribute its limited financial resources, leaving the Caspian investment projects high and dry.

There projects are unlikely to attract investment from other Caspian energy players. The U.S. sanctions is one reason; another is that there are other routes for bringing the Caspian oil to the world markets, and investors will want to put their limited funds into projects that are more reliable, politically and otherwise.

The principal existing route is the BTC pipeline. Azerbaijan and Kazakhstan ratified their earlier agreements and signed new ones in 2008 to increase the volume of tanker shipments from three large Kazakh fields – Tengiz, Kashagan and Karachaganak – to Baku. The two sides have agreed to set up the Kazakhstan Caspian Transport System (KCTS) and a joint project development company. They have also finalized funding, price policy and terms of access to the new transit infrastructure.[61] At the first stage of the project (from 2012) annual Kazakh oil shipments will reach 23 million tons, and 35–36 million tons at the later stages, compared to just 3.4 million tons Kazakhstan exported to Iran in 2007.[62] The project offers substantial benefits to both parties. Kazakhstan secures access to an additional export channel that is already up and running, as opposed to still languishing on the drawing board, while Azerbaijan keeps its pipeline profitable and strengthens its position as a transit route. The project is funded by the stakeholders in the Kazakh oil fields and the BTC (some of them have stakes in both the oilfields and the pipeline).

Another option available to Kazakhstan is the *Caspian Pipeline Consortium (CPC)*. It was the problems with expanding this pipeline's transit capacity, which arose in 2008, that had actually led Kazakhstan to launching the KCTS project as an alternative.[63] Nevertheless, the *CPC* stakeholders signed a memorandum of understanding on December 17, 2008, to increase the pipeline's capacity to 67 million tons a year.[64]

The third option Kazakhstan is working on is the pipeline to China – more specifically, the second leg between Kenkiyak and Kumkol. The annual transit capacity of the pipeline, which is expected to be launched by the end of 2009, is 20m tons.[65]

Unless these three projects fall behind schedule, they will create enough transit capacity to cover Kazakhstan's growing oil exports requirements, which are expected to reach 100 million tons a year by 2013. That means that Iran's role in bringing Kazakh oil to the world markets will become even less significant. Right now, the Iranian route is the least attractive of the four options available to Kazakhstan. Astana will want to keep this option as a backup so as not to be locked in to the other three export routes. But neither Kazakhstan itself nor its partners will actually invest in the Iranian route, and they will warm to it only if the other projects fall through.

Meanwhile, Azerbaijan itself aspires to become the region's key transit route. Russia's exports via Iran are so small that they are not even mentioned in most sources. Iran makes sense as a transit route to reach Asian consumers, provided that they can pay enough to discourage the suppliers from shipping their oil to Europe instead. But the completion of the Eastern Siberian-Pacific pipeline will open a direct route for Russian oil to China and other countries of Asia-Pacific. That will make the Iranian transit option even less attractive for the Russian oil producers. The Iranian swap operations are vitally important only to Turkmenistan.

That means that Iran's Caspian neighbors are quite happy with the existing volume of the Iranian swap shipments, and they are not showing much interest in expanding the scheme, let alone building a pipeline from Kazakhstan to the Persian Gulf. Nevertheless, they are not going to abandon the Iranian route completely: they want to keep their options open, and in different political circumstances that route could yet prove to be fairly attractive.

The swap project in its current shape and size is quite convenient for Iran and its neighbors alike. It also enables Iran to develop infrastructure in its Caspian provinces, lay the foundation for future expansion of its transit system, secure oil supplies to its northern refineries, and even to play a role, albeit small, in Caspian energy transit. If Iran's plans to build large tankers in the Caspian come to fruition, *NIOC* will be the only contractor capable of shipping large amounts of oil across the Caspian Sea (though not necessarily to Iranian ports) because no other Caspian nation has plans to build such big ships.

That makes it very important for Tehran to make sure that the entire Caspian Sea is open to international shipping. Moscow is firmly of the same opinion, which makes it more likely that the two will have their way at the talks on the legal regime of the Caspian.

In some sense the swap operations could be quite risky for Iran. If shipments to Neka are interrupted or significantly reduced, the Iranian refineries in the north of the country will have to cut their output. Given the perennial fuel shortages in Iran, which could spill over into public discontent in strategically important northern cities, including Tehran and Tabriz, the Iranian regime is very sensitive about the reliability of the swap shipments.

But the bottom line is, everyone is happy with the existing volume of swap operations. Iran would naturally prefer to see these shipments go up, but the suppliers are not interested in this, let alone in the Iranian pipeline projects. Export routes have already been decided for the next several years, and Iran's share in them is minimal. In must be said however than in several years' time, Caspian production could rise sharply. Oil reserves in the undeveloped Alov-Araz-Sharg fields alone are estimated at 900 million tons. If that happens, the Iranian route could suddenly become much more attractive, and if the political situation improves by then, the Caspian producers might well opt in its favor.

IRAN'S INTERESTS IN GAS TRANSIT

Iran's key interests in Caspian and Central Asian gas transit boil down to participating in the transit of gas from the neighboring countries to Europe, South Asia and East Asia, as well as securing its own presence on the gas market of the Transcaucasia, and importing small amounts of gas for northern Iranian provinces.

As for the gas industry as a whole, Iran's strategy here is two-pronged. The first ambition is to increase its own exports; the second to become the transit route for as much of the neighboring region's gas production as possible. Over the past few years Iran has put an emphasis on ramping up its gas exports. The infrastructure required for that would also serve the task of attracting transit custom from other countries (talks are now under way with Turkmenistan). Here too Iran prefers a swap scheme to straightforward transit: it wants to buy gas for its own needs from one party (Turkmenistan), and then sell its own gas to another party (Turkey). That solves the usual dilemma of the countries that export their own gas and act as a transit route for other producers at the same time.

The situation for Iran's gas industry is not as clear-cut or predictable as in the oil sector. The country has the world's second largest gas reserves after Russia – 28 trillion cubic meters. But

for a long time Iran remained a net importer of gas. Only in 2007 did the country produce as much gas as it consumed (110.5 billion cubic meters). Two thirds of the gas fields remain undeveloped. Iran is now trying to change that and turn into one of the key players on the international gas market. Its largest gas field, South Pars in the Persian Gulf, holds about half of the country's gas reserves (10–15 trillion cubic meters). Most of its other large gas fields are in the south of the country, and the Khangiran field is in the northeast, near Meshkhed. The daily output of South Pars is projected to reach 400 million cubic meters by 2015. Half of it will be exported.

One of *NIOC's* key tasks is building domestic gas infrastructure and shifting the bulk of domestic energy consumption from oil to gas, whose share reached 53 percent in 2006.[66] Iran plans to spend $18 billion on gas infrastructure projects in 2009, bringing the share of Iranians who enjoy access to gas for domestic needs to 80 percent (54 million people).[67] Up to 30 percent of the gas produced will be pumped into oil beds to maintain oil production.

Although Iran's domestic gas consumption is high by any standards, the country also has ambitions exports plans. It has set itself the goal of becoming a world leader in this area. In 2007, Iran exported just 6.2 billion cubic meters of gas. *NIOC* plans to increase gas exports via pipelines to 44 billion in 2009,[68] and to 110 billion by 2020.[69]

In 2002 the government set up the *National Iranian Gas Export Company (NIGEC*), tasked with increasing gas production and exports. The company plans to export gas in the liquefied form (LNG) in addition to building new pipelines and spurs to existing and future international gas transit networks.[70]

When the company was being set up, it was expected that in addition to Europe and Turkey, the main export destinations would include the United Arab Emirates, Oman, Kuwait, Pakistan, India, Armenia and Georgia. Those exports would rely on a system of existing and new pipelines.[71] Some of those plans have already come to fruition: Iran has begun exports to Armenia and Turkey, and for a short time supplied its gas to Georgia as well. Talks are still under way on other projects, though some have never left the drawing board.

Tehran's attention is now fixed on two international pipeline projects: the Iran-Pakistan-India pipeline (IPI), and a spur from Europe's future *Nabucco* pipeline to Iran. Neither of these two projects directly involves Iran's interests in Central Asia or the Caucasus, but they do have an impact on Tehran's strategy in that region. At least two key implications come to mind. First, the Caucasus loses its significance for Iran as a promising market and a transit route providing access to Europe. Second, the idea of Turkmen gas transit via Iran becomes more attractive. Both of these considerations create more room for cooperation with Russia.

Tehran sees Europe as one of the most attractive markets for its future gas exports. In addition to pure economics, the Iranian leaders also hope for political dividends from cornering at least a small part of the European gas market. Until recently, Tehran has been considering only two options for bringing its gas to Europe. One is via Turkey, once more capacity has been built into the existing infrastructure; the other is via the South Caucasus, and then on to Ukraine, Poland and other East European markets. But in 2008 Iran also launched a campaign to join the *Nabucco* project.

The chances of that third option coming to fruition never looked high. The necessary infrastructure was nonexistent, Georgia and Azerbaijan did not seem very interested, and *Gazprom* soon blocked the route via Armenia.

Ukraine, however, did demonstrate some interest in Iranian gas supplies. It was back in the 1990s that Kyiv first discussed this with Armenia and Azerbaijan.[72] In 2003 Ukraine signed a memorandum on buying large quantities of Iranian gas over the next 25 years.[73] But there has been little progress since then. Ukrainian President Viktor Yushchenko congratulated his Iranian counterpart on the Iranian holiday of Nowruz in 2008, but that exchange of pleasantries did not lead anywhere. Taking into account Iran's gas prospects in the Caucasus, Kyiv has only a hypothetical chance of securing access to Iranian gas. That will require a spur to be built from *Nabucco* to Moldova and Ukraine, as well of course as Iran's own participation in *Nabucco*. Ukraine is at the very end or, at best, in the middle of the proposed route – and for this route to materialize, Iran first needs to gain access to the gas markets of Armenia and Georgia, and to build the necessary infrastructure.

In Armenia, Iran has fallen foul of *Gazprom*. In 2004, Tehran and Yerevan agreed to build a gas pipeline that would be an alternative source of gas supplies for Armenia. The first leg of the pipeline between Megri and Kajaran was launched in 2007. The second 186 km stretch linking Kajaran and Ararat was launched on December 1, 2008.[74] Iranian gas exports via the pipeline are expected to reach 2.3 billion cubic meters annually. But all of that gas will be consumed in Armenia itself, mostly for generating electricity that will then be exported back to Iran (at the agreed rate of 3 kWh for 1 cubic meter of gas). The construction of the first leg of the pipeline was funded by Iran itself, using a $30 million loan from the Export Development Bank of Iran.[75] But the pipeline was then bought by *Gazprom* in early 2006 under a deal that also fixed the price of gas for Armenia. That is when Yerevan made *ArmRosgazprom* the client party for the construction of the second stretch of the pipeline. In addition, Russia became the owner of the Razdan power plant, which will produce electricity for Iran.[76] On its own territory, Iran has built a 110 km stretch between Tabriz and Megri.

JSC ArmRosgazprom is now the only gas supplier in Armenia. The company also owns the gas distribution network, including the Armenian stretch of the new pipeline to Iran. Initially, *Gazprom* and the Armenian government owned 45 percent each in *RosArmgazprom*. The remaining 10 percent stake belonged to *Itera*, a gas trader. After a rights issue to finance the construction of the second stretch of the pipeline, and an acquisition of *Itera's* stake in March 2009, *Gazprom* consolidated its stake in *ArmRosgazprom* to 80 percent, and the Armenian government's share was diluted to 20 percent. So Iran is now essentially dealing with *Gazprom* in Armenia, which puts an end to the idea of exporting Iranian gas via that country to European markets. The outcome could have been quite different for Iran. Tehran did offer alternative proposals to Armenia,[77] but Moscow's leverage, which included the price of Russian gas supplies and the restructuring of Armenia's debt to Russia, turned out to be more persuasive. Iran had to abandon the idea of using Armenia as a transit route. But it did secure guaranteed electricity supplies in return for its gas. And being the only available alternative to Russia as a potential source of gas supplies, it could yet play a crucial role in the event of an interruption of transit from Russia on the Georgian stretch of the pipeline,[78] which happened for example in December 2008-January 2009.

There has also been a precedent of Iran supplying gas to Georgia in January 2006, in similar *force-majeure* circumstances. If Moscow is to be believed, the supplies to Georgia were interrupted by explosions on two transit pipelines in North Ossetia.[79] A couple of days later the Iranian foreign minister, Manouchehr Mottaki, got in touch with his Georgian counterpart and said Iran was ready to start pumping its gas to Georgia. The pipelines that existed at the time could carry up to 2 million cubic meters a day, and there was a possibility of that figure rising even further later on.[80] But Georgia soon stopped Iranian gas imports and has not resumed them ever since.

In 2005 Iran signed an agreement on gas supplies with Azerbaijan, and the two countries have been cooperating quite successfully in this area. Using the existing gas transit infrastructure, Azerbaijan exports gas to northwestern Iranian provinces. In return, Iran supplies gas to the Azeri exclave of Nakhichevan.[81] Tehran has also offered to take part in the transit of the additional gas that will be produced by the Shakh-Deniz field in the Caspian.[82] Right now the field's entire gas output is pumped via the South Caucasus Pipeline (Baku-Tbilisi-Erzurum), which went operational in 2007. Given Baku's ambition to become the main transit route for Caspian energy flows, there is little reason to expect it to expand its cooperation with Iran beyond what is necessary to supply Nakhichevan with gas. Iran and Azerbaijan have conflicting interests in this area. If Iran were to be included in the *Nabucco* project, and especially if the Trans-Caspian gas pipeline plans fell through, Azerbaijan would become just of one many gas suppliers. But if the Trans-Caspian pipeline were to succeed, Baku would become the regional transit center, and secure a reliable source of transit revenue for many years to come.

In other words, over the past few years Iran has managed to win a share of the South Caucasus market. The key factor behind its success was that Tehran was a welcome alternative source of gas supplies, which Armenia, Georgia and Azerbaijan's Nakhichevan autonomy were happy to have for national energy security considerations. But in Armenia, Iranian gas supplies have since fallen under *Gazprom's* control. Georgia is now receiving gas not just from Russia but also via the South Caucasus Pipeline, and Tbilisi is not eager to build long-term relations with

Tehran. Meanwhile, Azerbaijan is busily developing its own gas fields, so the only area where it is prepared to work with Iran is the gas supplies to Nakhichevan. All that means that Iran's small share of the Caucasus market can only rise in the event of a sharp increase in gas consumption here, or if the region's nations decide to reduce their reliance on Russian gas imports.

As for Iran's attempts to enter the European market via the South Caucasus, they have essentially been checked by the two other producer and transit countries, Russia and Azerbaijan.

Iran now has just one route to Europe still left to it: via Turkey. Ankara has been quite positive about Tehran's aspirations here. Iranian gas has already won a substantial share of the Turkish market; both countries would like to increase these supplies and channel some of them on to Europe. Two options are available: one is based on bilateral agreements with Turkey; the other is for Iran to join the *Nabucco* project. These two options are not mutually exclusive.

Iran began gas exports to Turkey via the Tabriz-Ankara pipeline back in 2002. The maximum annual capacity of the pipeline is 14 billion cubic meters. Right now Turkey buys only about 5–6 billion. The pipeline was built to serve the domestic Turkish market. There have been reports in the Iranian media that Istanbul and Ankara have been in talks since 2008 about Turkish companies' participation in the South Pars project. Turkey might even be willing to build a new pipeline via its territory to supply Iranian gas to Europe.[83] The two sides signed a memorandum of understanding in November 2008, outlining plans to export up to 35 billion cubic meters of Iranian gas to Europe via Turkey and to build a new pipeline for that purpose.[84] Turkey has also been supportive of Iran's aspiration to join the *Nabucco* project, and Turkish Prime Minister Erdogan has made several statements to that effect in recent months.

Iranian experts, government officials and industry representatives have been expressing great interest in the *Nabucco* project since 2008. The Georgian crisis and the Russian-Ukrainian gas conflict at the beginning of 2009 put even more wind in their sails, and the Iranian media have taken to expounding their simplistic arguments in favor of Iran's inclusion in the European project almost on a daily basis.

Their case is based on the assertion that Russia can no longer be viewed as a reliable energy supplier, and that Iran is the only realistic alternative.[85] The Iranians also claim that *Nabucco* will not be economical unless it secures Iranian gas supplies by 2017 at the latest. Whether America and its allies like it or not, the Iranian argument goes, Iran would be the most reliable gas supplier for *Nabucco*, especially given that Moscow has already signed contracts with the Central Asian producers, diverting their gas into Russia's own pipelines. As a killer argument about the need to strengthen security along the pipeline's route, an expert from the Iranian Shana agency even ventured to remind everyone that *Nabucco* is another name for Nebuchadnezzar, a great king who drove the Jews out of Babylon and into exile.[86] It is not exactly clear which point the expert was trying to make, but potential European partners probably weren't very interested anyway.

However, the European participants in *Nabucco* are increasingly showing interest in Tehran's offer. Turkey is firmly of the opinion that Iran should be involved in the project. Bulgaria's *Bulgargas* sent a delegation to Tehran at the end of February to discuss the possibility of Iranian gas supplies. The secretariat of the project itself is not ruling out Iran's participation either – but not now, and not until the political situation improves. Nevertheless, the EU leadership is blocking Iran's bid to join the project. Iranian representatives were not invited to the January 2009 meeting of the project's participants in Budapest. The political game over Iran and *Nabucco* is only just beginning, and it is linked to many other issues. But for the purposes of this discussion suffice is to say that Iran is aspiring to become a supplier for the proposed new pipeline.

Apart from its own exports, Iran is also trying to become the transit route for energy flows from neighboring countries. It is hoping to win oil transit custom from almost all the other Caspian nations; as for gas transit, the key partner it is trying to woo is Turkmenistan. Iran's strategy here is to keep Turkmenistan from committing itself to exports via the Trans-Caspian and Trans-Afghan pipelines, which are still on the drawing board. The first of the two proposed pipelines would reduce Iran's chances of winning a share of the European market, partly because it would make its participation in *Nabucco* less likely. As for the Turkmenistan-Afghanistan-Pakistan-India pipeline project, its implementation would jeopardize the alterna-

tive Iran-Pakistan-India (IPI) route. The success of these two *hostile* projects would be a serious blow for Iran's grand plans for a manifold increase in gas production and exports.

The capacity of Iran's own pipelines is not enough to offer them as an alternative route for the entire volume of Turkmen gas exports. On the other hand, Iran does not want this gas to flow via the Trans-Afghan and Trans-Caspian pipelines either. There are, however, two other projects that represent the lesser evil for Tehran. One is the Near-Caspian pipeline which would channel Turkmen gas via Kazakhstan and Russia. The other is building a pipeline from Turkmenistan to China via Kazakhstan – an agreement to that effect was signed in 2006. Of course, apart from seeing the rival projects bite the dust, Iran would also like to make itself one of the key routes for gas exports from Turkmenistan.

The nature of Iran's relations with that country gives it every reason to be optimistic about the outcome – which cannot be said about Tehran's ties with its other Caspian neighbors. Of all the former Soviet republics, Iran is on the best terms with Turkmenistan. That includes energy cooperation as well as other areas. The Meshkhed-Serahs railway line, opened in 1996, became the first link between Iran and the hitherto closed Central Asian countries. And as this article has already mentioned, Turkmenistan channels over 90 percent of its oil exports via Iran.

Turkmenistan has been exporting 6 billion cubic meters of gas to Iran every year since 1997, via the Korpedje-Kurtkui pipeline which supplies Iran's northeastern provinces and accounts for five percent of the country's total gas consumption. An *NIGC* representative said in September 2008 that the annual imports from Turkmenistan had actually increased to 9.2 billion cubic meters, and were expected to rise further to 14 billion cubic meters.[87] Some of this gas is sent on to Turkey under a swap scheme.

But for all the benefits of this cooperation, there are risks as well. Iran's northeastern provinces depend on Turkmenistan for their gas supplies. That became painfully obvious when a price war led to an interruption of supplies at the beginning of 2008, during the coldest period of the year (Ashgabat said it needed to perform urgent repairs on the pipeline). That also led to an interruption of Iranian gas supplies to Turkey. To overcome this problem, Ashgabat and Tehran agreed to change the pricing system. On December 31, 2008 they signed a deal on the transition from fixed to floating gas price which tracks the price of crude.[88]

Meanwhile, Iran is also making steps to end the dependence of its northern provinces on gas supplies from Turkmenistan. The *NIGC* is pushing ahead with the project to connect northern towns and villages to the national gas network, which includes the building of a trunk pipeline from Tehran Province to Khorasan-Razavi via Semnan.[89] But that does not mean that Iran wants to end imports from Turkmenistan – on the contrary, it wants those imports to increase, partly to enable Iran to increase exports to Turkey and on to Europe. In mid-February 2009 Iran signed a new agreement with Turkmenistan to import 10 billion cubic meters of gas a year from the Iolotan gas field.[90]

Apart from the improving relations with Turkmenistan, another positive sign for Iran is the difficulties facing the Trans-Afghan and Trans-Caspian projects. The key problem for the first project is the military and political instability along almost the entire route of the proposed pipeline. The first consortium to work on this pipeline was created back in 1996. Turkmenistan, Afghanistan and Pakistan then signed another agreement in December 2002. India joined the agreement to buy Turkmen gas in 2008.[91] Meanwhile, the continuing troubles in Afghanistan have been compounded by growing political instability in Pakistan, where the government has essentially lost control of the border with Afghanistan. As for the IPI project, despite the de-facto suspension of India's participation, Islamabad and Tehran have managed to agree on the gas price formula at the end of 2008, and are making optimistic noises about pushing ahead with the project.

Meanwhile, the prospects of the Trans-Caspian project have become less certain after Russia, Kazakhstan, Turkmenistan and Uzbekistan signed an agreement to build the Near-Caspian Pipeline and upgrade the Central Asia-Center network. In this area, the Russian and Iranian interests coincide.

A successful implementation of the IPI project would make the Turkmenistan-Afghanistan-Pakistan pipeline less economical. And Iran's inclusion in the *Nabucco* project would be a pow-

erful argument against the Trans-Caspian pipe. Conversely, the demise of the Trans-Caspian project would improve the chances of Iran's inclusion in *Nabucco*. Iran would then become both a supplier and a transit country for Turkmenistan's exports to Europe. It is hard to say now whether Iran will actually see this ideal scenario come to pass – experts are doubtful about Iran's ability to supply enough gas for both pipelines at the same time. It is therefore important for Iran to make sure that its southern gas fields come on stream as planned. But the prospects of Iran's participation in both of these large projects have lead to a certain shift in the country's interests in the Caspian region. First, Iran must maintain good relations with Russia's *Gazprom* and with the Caspian nations. Second, Tehran is moving away from the strategy of supplying its gas to Europe via the South Caucasus route or increasing its presence on the Caucasian market. And third, although Iran will still try to attract more Turkmen gas transit custom, it would also be willing to support the Russian and Kazakh route for the Turkmen gas exports as an alternative to the Trans-Caspian project.

So Russia and Iran have both conflicting and shared interests in gas transit. In the oil sector, Iran already has an established market and export channels. In the electricity sector, the interests of all the participants more or less coincide. But in the gas market, Iran is aspiring to become a new powerful entrant. It will of course have to win its share of the market from the existing players. In Europe that would be primarily Russia. Much depends on the dynamics of European gas consumption. If the ongoing economic crisis or some other factors depress gas consumption in Europe and the market stagnates, frictions will inevitably arise between the *old* and the *new* players. Which is why Russia would like Iranian gas to flow in some other direction instead, such as South Asia. That means that Russian and Iranian interests coincide on the IPI and the Trans-Afghan project. But there the simple answers end. Moscow's and Tehran's interests in Turkmenistan coincide on the Trans-Caspian project – both would like to see it fall through. But they also diverge since both of them want to become the main transit route for the Turkmen gas. Meticulous work by both countries' experts and well though out political and economic steps are required to harmonize these interests. Effective and systemic work in this direction requires the involvement of international institutions. The Gas Exporting Countries Forum, set in December 2008, could become one such institution; the Shanghai Cooperation Organization (where Iran is an observer) is another. The Economic Cooperation Organization (where Russia is not even an observer so far) is one other option.

IRAN'S INTERESTS IN THE ELECTRICITY MARKET

The electric energy market is one of the least controversial areas where interests of all the regional players mostly coincide rather than diverge. In 2006, power generation in Iran reached 190 billion kWh. The total electricity consumption was 149 billion kWh. Consumption is growing by 7–9 percent every year, while generation is increasing at an annual rate of 10 percent.[92] That means Iran has a surplus of electricity, which it exports to Armenia, Afghanistan, Iraq, Pakistan and Turkey. But on some occasions, such as during the drought of 2007–2008, which forced Iran to shut down its hydroelectric plants, or during the summer peak of electricity consumption, some of the Iranian territories and cities experience power shortages. Iran's neighbors face similar problems from time to time. In this area Iran is prepared to play a constructive role so as to resolve its internal disproportions and to make a tangible contribution to the development of Central Asia and the Caucasus.

Speaking in 2004, the Iranian deputy energy minister, Dr Reza Amrolahi, outlined four key priorities for Iran in the regional electricity sector: direct electricity exports to neighboring countries (primarily Turkey and Iraq); imports (mainly from Central Asian countries and the South Caucasus); seasonal and intra-day energy flows between Iran and its neighbors; and electricity transit via Iran, for example between Azerbaijan proper and its Nakhichevan exclave.

Iran intends to secure reliable electricity imports from Central Asia, Azerbaijan and Armenia, for which purpose it has been doing what it can to invest in the construction of new power plans and cross-border power transmission lines.

The key project for Iran in this area is the construction of the 220 MW Sangtuda 2 hydroelectric power plant on the river Vakhsh in Tajikistan. The last generator of the Sangtuda 1 plant,

built jointly by Russia and Tajikistan, was launched on May 16, 2009.[93] Sangtuda 2, which is being built by Iran, will work in parallel with Sangtuda 1. The Iranian partner was expected to contribute $180 million to the project, and the Tajik government – another $40 million. The completion date is scheduled for 2011. Under the terms of the deal between the two governments, Iran will own the plant for 12 years and six months after the launch; the plant then becomes the property of Tajikistan.[94]

Another Tajik project in which Iran could take part is the completion of the Rogun hydroelectric power plant, which would almost double Tajikistan's power generation capacity (the total capacity of the existing Tajik hydroelectric plants is 4,070 MW, while the Rogun plant is rated at 3,600 MW).[95]

Russia's *RUSAL* at one point became the main investor in the completion of the Rogun project, which began back in the 1970s. An agreement to that effect was signed with the Tajik government in 2004. But actual work never began due to technical differences, and in September 2007 Dushanbe pulled out of the deal. The nature of the differences was that the Tajik government demanded the height of the dam to be increased to 325 meters, which would allow Tajikistan to control the flow of the Vakhsh, a tributary of the Amu Darya. The problem also had political connotations – Dushanbe believed that *RUSAL* was "failing to fulfill its obligations" under pressure from neighboring Uzbekistan.[96]

Tajikistan then decided to complete the project on its own, hoping for a loan from the World Bank or other international institutions. Iran said it was willing to take part.[97]

Apart from the hydroelectric projects in Tajikistan, Iran also plans to take part in building small hydro power plans on rivers along its border with Armenia and Azerbaijan. In March 2007 it signed a deal with Armenia to build two 140 MW hydro power plants on the river Araks,[98] and in August 2007 a similar deal was signed with Azerbaijan.

Electricity exports/imports and the linking of the national energy grids requires a powerful system of cross-border transmission lines (ETLs). The biggest project being discussed in this area is the construction of an ETL from Tajikistan to Iran via Afghanistan along the route of Sangtuda-Rogun-Kunduz-Mazar-Herat-Meshkhed. A memorandum on the project was signed by the three countries' ministers in September 2008. Iran's *Mushanir* company was contracted to carry out a feasibility study.[99] Apart from the memorandum, no progress has been made by the spring of 2009. The cost of the project and the sources of funding will be determined once the feasibility study is completed.

Another project being considered is the construction of a third ETL between Armenia and Iran, rated at 400 MW.[100] The two existing lines are each rated at 200 MW. There are also plans to build new ETLs between Iran and Azerbaijan and increase electricity flows between the two countries from 250 MW to 700 MW.[101]

Some of Iran's most successful energy projects in Central Asia and the Caucasus are in power generation and transmission, although here too the country's share of the market is much smaller than Russia's. Tehran has been nurturing ambitious plans in this region, which is perhaps unsurprising, given the momentous changes here following the collapse of the former Soviet Union. But the opportunities offered by these changes are open not only to Iran. In fact, Iran has found itself in one of the least favorable positions to make use of them. After two or three years of search, the new independent states stopped trying to make a choice between the Islamic, Turkish, Iranian, Western or other models. The Central Asian and Caucasian leaders have been busy consolidating the nationhood and the economies of their republics, as well as their own grip on power, using their countries' energy resources as a powerful tool. Politically, Iran has played a constructive role; more so in Tajikistan, and to a lesser extent in other conflict zones. But Tehran did not have the resources to secure a more tangible political or economic role for itself in the new independent republics. More powerful players have cornered the energy market of the southern CIS states. All Iran could do was try to solve the Caspian problem (it had almost nothing to lose here, but it needed to keep its options open), and to build energy relations with its northern neighbors in a way that would help its own social and economic development rather than hampering it. In power generation and transmission, as well as in the oil sector, that goal has largely been met.

Central Asia and the Caucasus are now on the periphery of Iran's foreign policy, but the balance of forces in this region will largely determine the outcome of the Iranian plans in gas exports and transit. Harmonizing its interests in this area with Russia's is of the utmost importance for Iran.

Following the arrival of the new U.S. administration at the beginning of 2009, many analysts are expecting a radical shift in U.S.-Iranian relations, which they believe will completely change the geopolitical and energy situation in the region. That would probably open new prospects for Iran – but any change will take time. It will take more than a few months for the investment climate to improve, and the political risks will not disappear overnight. Meanwhile, countries in Central Asia and the Caucasus already have a large choice of export routes, and plenty of investors eager to take part in developing their energy wealth. As for Russia and Iran, no matter what the nature of their respective governments might be, both of them will always be viewed in the West as two powerful *geopolitical tectonic plates,*[102] as Russian journalist Azer Mursaliyev put it – and the Western goal will be to steer the new energy routes well clear of them both.

Notes

[1] This article's definition of the Caspian region includes the former Soviet republics in the South Caucasus and Central Asia, including: Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

[2] Michael Cohen, "The Effect of Oil Revenues on Transition Economics: The Case of Azerbaijan," *Geopolitics of Energy,* Volume 28, No. 6, 2006, pp. 12–13.

[3] The share of the Caspian in total proven oil and gas reserves of the region's countries (based on a U.S. Energy Information Agency report and BP statistics overview).
Oil – billion barrels
Gas – billion cubic meters

Country	Caspian oil	Total oil reserves	Share of Caspian oil, %	Caspian gas	Total gas reserves	Share of Caspian gas, %
Azerbaijan	7	7	100	850	850	100
Kazakhstan	22	30	73		2,408	75
Turkmenistan	0.5	0.6	83	?	2,663	–
Russia	0.3	60	0.005	–	47,609	–
Iran	0.1	138.4	0.0007	–	28,101	–

Source: Oil & Gas Journal Energy Information Administration Table, posted on March 3, 2009, http://www.eia.doe.gov/emeu/international/reserves.html

[4] *Constitution of the Republic of Azerbaijan*, http://www.president.az/browse.php? sec_id=52

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