

Turkey's private gas firms are a more reliable best, sources

ICIS, 18.02.2014



Sources operating natural gas-fired power plants in Turkey say the country's private natural gas companies are more likely to continue supplies than the state incumbent BOTAS in the case of a gas emergency.

This is because state owned BOTAS is unlikely to instruct these private power generator companies to reduce their supplies to gas-fired power plants, as it did to its own customers during recent gas crises. In January this year and December 2013, state BOTAS instructed its private power plant customers to reduce gas consumption and power generation.

Earlier this month, nearly 11GW of gas-fired generation were shut down out of a total installed capacity of 24GW, pushing electricity prices to TL217.49/MWh on 6 February, the highest level so far this year. Power plants supplied by private companies could continue to operate, provided system pressure stayed above a set level. As a bundled supplier and grid operator, BOTAS does have the right to instruct all sectors to curtail consumption, but this is politically unpopular and has not happened in recent years. This meant a few smaller companies, buying gas from private supplier, could continue to run.

Independent power plants sourcing private sector gas but that generate more and whose pressure dropped below the contracted minimum were still asked to reduce their running hours. ICIS understands that in contracts with private gas importers and wholesalers, gas-fired power producers agree to cut consumption and generation in case the system pressure drops below a certain level. ICIS could not establish the exact threshold, but companies said this may be 20 bars for large combined-cycle gas plants (CCGTs). "If they can work on a low gas grid, they are allowed to generate as normal," a source said.

Turkey's gas-fired generation is critical to Turkey's security of supply and any interruptions may cause power prices to spike. In order for gas-fired generation to break even, plants need to run 4,800hours during the year and at a price hovering around TL180.00/MWh (\$82.55/MWh, €60.23/MWh). Sources interviewed by ICIS said it was unlikely that gas-fired plants reached the required levels in 2013 as the year saw muted demand mainly because of mild temperatures in winter. This also meant Calendar year 2013 Baseload delivered at TL150.21/MWh, TL30.00/MWh, lower than the breakeven level. BOTAS did not respond to calls for comment.

Turkey's gas demands to increase by 60 %

Trend.Az, 15.02.2014



Turkey's gas demand will increase by 60 percent by 2035, president of BP Turkey, Bud Fackrell said at the conference held at the Caspian Strategic Institute (HASEN) on Feb. 14, the institute said on Feb.15.

TANAP within the Southern Gas Corridor will allow to meet Turkey's gas demand, according to Fackrell. The TANAP project envisages gas transportation from the Shah Deniz field to Europe via Turkey. The Southern Gas Corridor is a project that will allow Europe to diversify its sources of hydrocarbon supply and strengthen energy security and for Azerbaijan to get a new market in Europe.

The initial capacity of the pipeline is expected to reach 16 billion of cubic meters a year. About six billion cubic meters will be delivered to Turkey and the rest to Europe. In future, it can be extended up to 31 billion cubic meters per year. The TANAP partners are expected to be: SOCAR, operator (68 percent), BOTAS (20 percent) and BP (12 percent) following the purchase of TANAP interests by BOTAS and BP that are expected to be completed in 2014. The total investments in the implementation of the project will be \$8-10 billion.

Turkish energy minister denies selling Kurdish oil without Baghdad's consent

Hürriyet Daily news, 17.02.2014



Energy Minister Taner Yildiz has refuted media reports that Turkey has already undertaken a \$90-million Iraqi Kurdish oil sale without waiting for Baghdad's permission, repeating that the central Iraqi government's approval is crucial to proceed further in an oil deal with Arbil.

"Sometimes I learn from the press that a \$90-million sale has been carried out, but this is not at issue right now," Yildiz said on Feb. 17, speaking to reporters while meeting with Oil Platform Association board members. "If there will be a sale, it will be within the knowledge of Baghdad and its revenues will be conveyed to them."



Daily Milliyet had reported Kurdish sources as saying that the first tranche of oil had been sold through the Trans Petroleum company in Singapore. The report published on Feb. 15 claimed that the \$90 million collected from the first sale was put in Turkish state-owned lender Halkbank. Sources further said the issue was brought up during Iraqi Kurdish Prime Minister Nechirvan Barzani's meeting with Turkish Prime Minister Recep Tayyip Erdogan on Feb. 14, as he requested that Arbil's part be paid. "We wish for Arbil and Baghdad, two brothers, to agree between themselves and for the revenues to be yielded here to be transferred to their accounts after being blocked in Turkish banks," Yildiz added. Central and regional governments of Iraq have been in a long-standing dispute over the latter's desire to export its own oil to world markets via Turkey.

The row escalated when Arbil stated to pump Kurdish oil through a new pipeline to Turkey. Baghdad has threatened to sue Ankara and slash the autonomous region's share of the national budget if exports go ahead through the pipeline without its consent. The pipeline was completed late last year, and oil has since been pumped through it into storage tanks at Turkey's Ceyhan, but exports from the Mediterranean port are on hold to give diplomacy a chance. Negotiations have carried on for months with little progress. Yesterday, Barzani and Iraqi Kurdish Minister of Natural Resources Ashti Hawrami headed for Baghdad to intensify efforts to settle a long-running dispute, Reuters reported.

However, one industry source said he foresaw a breakthrough "in a week or two," adding, "If it takes any longer than that, there is a problem." Crude from Kurds used to reach world markets through Baghdad's infrastructure, but exports via that channel dried up due to a row over payments for oil companies operating in the northern enclave. Since then, the Kurds have been exporting smaller quantities by truck across the border whilst building the pipeline to Turkey and negotiating a multi-billion dollar energy deal with Ankara. The landmark deal laid the ground for development of the infrastructure for Kurds to export some 2 million barrels per day (bpd) of oil to world markets and at least 10 billion cubic meters per year of gas to Turkey.

The sources said there were some technical issues with the pipeline, including air pockets, which have been resolved and that oil was flowing more or less continuously, albeit in small quantities. The Kurdish pipeline ties into an existing network controlled by Baghdad that links the northern Kirkuk oilfields to Ceyhan. Both are using the same pumping station, which has caused some problems. The Kurds plan to install their own pumping station, but it has yet to be commissioned and will take several months to be put in place, the sources said.

Turkey assures Iraq over oil exports

Hürriyet Daily News, 16.02.2014



Energy Minister Taner Yildiz has assured Baghdad over oil exports from the Kurdish region to Turkey, rejecting claims that oil has been exported without the consent of the central government.

Iraq has threatened to boycott Turkish companies and cancel contracts after KRG last month announced its first shipment of crude sent directly to Turkey, without passing through pipelines controlled by Baghdad, had gone on sale, with more expected to follow. Baghdad argues that all oil sales must be overseen by the central government and regards any independent exports tantamount to smuggling.

“Even if a barrel of oil had passed through Ceyhan, Baghdad would have been informed of this and a daily receipt would have been given to the central government noting how much of a sale was made,” Yildiz said in the central Anatolian province of Kayseri on Feb. 15. “This is Iraq’s oil, not Turkey’s. Thus Baghdad will be informed, because it is an issue related to Iraq’s income. So far, there has not been any oil that has gone through Ceyhan, but this does not mean it won’t be transferred in future. We’ll share all information with Baghdad,” Yildiz said, adding a total of 425,000 barrels of oil are in Ceyhan.

Turkey Europe’s secure energy hub, Gul says in Hungary

Today’s Zaman, 17.02.2014



President Abdullah Gul, who is paying an official visit to Budapest, has said Turkey is an important hub which offers alternatives for Europe to reach secure sources of energy. President Gul arrived in Budapest on Sunday accompanied by Deputy Prime Minister Emrullah Isler, Economy Minister Nihat Zeybekci, deputies and a group of businessmen and journalists for a three-day visit upon the invitation of Hungarian President Janos Ader.

Gul and Ader reviewed an honor guard in front of the presidential palace in Budapest on Monday during a welcoming ceremony.



Speaking at a joint press conference on Monday, Gul said he appreciates being in Budapest, one of the most beautiful cities in Europe, and thanked Ader for his invitation. Gul said he has spoken to Ader mostly about energy cooperation between the two countries, from nuclear energy and natural gas to alternative energy routes. “Turkey is an important hub which offers Europe alternatives to reach secure energy resources, in particular energy resources from the Caucasus and the Middle East,” Gul said. Gul stressed that the meetings in Hungary have been very productive. He noted that with Hungarian Prime Minister Viktor Orban’s visit to Turkey in December, relations between Turkey and Hungary have been elevated to a “strategic partnership” and a High-Level Cooperation Council has been established.

Economic relations between Turkey and Hungary were one of the main issues which Gul discussed with his counterpart. He added that both countries share the mutual goal of increasing bilateral trade volume from \$2 billion to \$5 billion and boosting investments in their countries. Gul pointed out that he had brought many Turkish businessmen and investors with him to Hungary to hold a business forum and invited investors from both countries to increase trade and investments. “Turkey has huge economic potential as it is the sixth-largest economy in Europe with a gross domestic product of \$850 billion. I believe Turkey will attract Hungarian investors,” Gul stated. President Gul has also thanked the people and government of Hungary for caring for and restoring historic artifacts from the Ottoman era. Gul also said Ader had reiterated his support for Turkey’s accession to the EU.

Speaking at the joint press conference, Ader said he was honored to host the president of a strategic ally of Hungary, adding that relations between Turkey and Hungary have developed further with the recent visits. Ader also stressed that 32 agreements between the two countries were signed during Gul’s visit. Praising Turkey’s economic success in the last 10 years, the Hungarian president said Turkey’s gross national product (GNP) had tripled between 2002 and 2013. Trade volume between Turkey and Hungary had also quadrupled during the same period and trade volume last year had increased by 30 percent, he said. He had also discussed with President Gul ways to further increase trade volume.

Emphasizing the cultural relations between Turkey and Hungary, Ader said cultural centers in Istanbul and Budapest were opened some time ago to boost these relations. There are four Hungary-Turkey friendship associations in Turkey and Turkey and Hungary have cooperated to preserve historic artifacts from the Ottoman era, he said. The Hungarian president also added that Budapest is a popular education center for Turkish students and that both countries are looking for ways to cooperate more on education.

After Hungary and Turkey celebrated the 90th anniversary of their Treaty of Friendship Agreement last December, Hungary is prioritizing relations with Turkey as part of its efforts to forge closer bonds with various countries outside the European Union. “While Hungary may play the role of a bridge for Turkish relations with the EU, Turkey may be the way through which Hungary becomes more connected with countries in Eurasia,” Janos Hovari, the Hungarian ambassador to Turkey, had said in an interview with Today’s Zaman in November.

Greek Cyprus leader touts energy boost for Turkey

Today's Zaman, 17.02.2014



Greek Cypriot President Anastasiades said on Monday that an agreement to reunify the divided Mediterranean island nation would help ease Turkey's energy needs. To the Associated Press, Anastasiades said a deal would allow Turkey to be supplied with found Cypriot and Israeli gas.

Dependent on foreign resources, energy-hungry Turkey has been seeking cheaper energy from nearby countries such as Iran, Russia and Iraq. Turkey does not recognize Greek Cyprus as a sovereign country and insists that Greek Cypriot exploration for oil and gas violates the rights of Turkish Cypriots to gas-generated wealth.

However, on the condition of an agreement between Turkish and Greek Cypriots on the future of the island, Cypriot gas can be an attractive alternative for Turkey to meet its energy needs. Anastasiades said the US has been instrumental in the resumption of stalled peace talks with the Turkish Cypriots and that the growing interest in reaching an accord is grounded in the potential for regional energy cooperation and helping to lessen instability in a turbulent area. The leaders of the Turkish Republic of Northern Cyprus (KKTC) and Greek Cyprus met in Nicosia last week to resume peace talks with the aim of reunifying the long-divided island. Negotiations started after overcoming a deadlock on a joint statement setting a framework for the peace talks through intense diplomatic efforts, particularly by the United Nations, the US and Turkey.

US Assistant Secretary of State for European and Eurasian Affairs Victoria Nuland visited the island before the talks and met with leaders from both sides. According to sources, Nuland delivered a message from US President Barack Obama to the leaders of the island, saying that it is important to overcome the joint statement issue and start negotiations. Attracting attention with its large gas reserves, the eastern Mediterranean island has become an area of interest for many countries and has led to a strategic conflict between world powers. The eastern Mediterranean rose to importance due to the natural gas reserves explored by Israel and Greek Cyprus, and it is believed that the region holds reserves sufficient to supply Europe's energy needs for decades and thus break Russia's monopoly on the energy sector.

According to energy experts, a settlement in Cyprus will turn the eastern Mediterranean into a new and reliable source of energy for international markets. Anastasiades also said the natural resources discovered would also contribute to improving relations between Ankara and Tel Aviv, which have been at odds since an Israeli raid on a Gaza-bound ship, the Mavi Marmara, in 2010. After the Mavi Marmara incident, ties between Turkey and Israel were strained further, and Turkey downgraded its ties with the Israel by withdrawing its ambassador and expelling the Israeli ambassador from Turkey.

Iran mulling over increasing gas exports to Turkey

Natural Gas Asia, 17.02.2014



Tehran is looking into Ankara's request to double gas exports to Turkey, reports Iran's Press TV. Earlier this month, Turkey had said that it was ready to double the amount of natural gas it imports from Iran if price is reduced.

According to Press TV, Oil Minister Bijan Namdar Zanganeh said Iran has yet to make up its mind about Turkey's request for the reduction of the gas price. Iran is currently charging Turkey \$490 for every 1,000 cubic meters of gas and exports 10 bcm per year. "Talks have been held between Iranian and Turkish oil and energy officials about discount in the gas selling in case Iran's gas exports to Turkey double.

Iran to send its gas to European market through Turkey

Trend.Az, 17.02.2014



Iran is to put its gas to the European market through Turkey, Turkish Energy Minister Taner Yildiz said, Turkish TRT Haber TV channel reported on Feb.17. This project is important for both of parties, but there is no agreement on this issue yet according to the minister. Talking about the arbitrary court of Turkey's suit against Iran on gas price, the minister said that Ankara hopes for a fair decision.

The International Court of Arbitration will consider Turkey's suit against Iran on the gas price on Feb.17. If the court issues a decision in favour of Turkey, Tehran will have to provide for a near 30 percent discount for supplied gas.

Based on the court's decision, Turkey may receive more than \$2 billion paid for the purchase of fuel. Ankara appealed to the International Court of Arbitration on the Iranian gas price in March 2012. The agreement on the annual supply of 10 billion cubic meters of gas from Iran to Turkey was signed in 1996. Gas prices are not officially disclosed, but Turkey buys Iranian gas at \$490 per 1,000 cubic meters, according to the Turkish media. Turkey imported some 7.5 billion cubic meters of gas from Iran in 2012, according to BP Energy Outlook.

Natural gas has potential to reshape ties in east Mediterranean

Today's Zaman, 18.02.2014



Turkey, being the best economic option for transporting Israeli and Greek Cypriot natural gas to Europe, has the potential to turn problematic relationships in the eastern Mediterranean region in a positive direction.

Peace talks concerning the island of Cyprus started on Feb. 11 after a push by the US government, in a sign of the changing political environment in the region. Experts say that one of the most important incentives to restart the Cyprus negotiations is the natural gas resources in the area and the billions of dollars that a gas deal would bring to those involved in possible pipeline projects.

Diplomatic sources, who preferred to remain anonymous, told Today's Zaman that the US administration backs an energy partnership between Israel, Greek Cyprus and Turkey, so that the mutual energy dependency helps to restore and maintain peace in the Eastern Mediterranean. Representatives from the US-based Noble Energy and Israel's Delek consortium are in Istanbul this week to discuss a possible pipeline deal which would transport Israeli natural gas to Europe through Cyprus and Turkey. The Noble-Delek partnership will negotiate with Turkish companies Zorlu, Enka, Turcas and Calik. According to the daily Hürriyet, transporting Israeli gas via a different route would be eight times more expensive. The Leviathan field off the coast of Israel is estimated to contain 19 trillion cubic feet of natural gas and is the largest gas field to have been discovered in the past decade, according to experts.

It was discovered in 2010, roughly a year after the discovery of Israel's Tamar field, which, together with the Tamar South West reservoir, contains roughly 11 trillion cubic feet of natural gas. According to experts, a pipeline from Cyprus to Turkey, transporting Israeli and Greek Cypriot natural gas, will be cost efficient with a price tag of 2 to 3 billion dollars. The alternative figure, involving the building of an LNG facility, liquefying the natural gas and shipping it to Europe, would cost 10 to 15 billion dollars. The recent start of the negotiations over the long-divided island of Cyprus has created a positive political environment for building a pipeline through Cyprus and Turkey.

However, Turkey's Energy Minister Taner Yildiz said on Sunday that Israel needed to fulfill certain conditions set by Turkish Prime Minister Recep Tayyip Erdogan before any energy deal can be sealed. Yildiz said that certain projects may be economically, but not politically, feasible. On Monday, Yildiz also said that Israel or indeed any companies interested in a pipeline going through Turkey have not yet requested a meeting with Turkish energy officials. Turkish-Israeli relations turned sour after a Gaza-bound aid flotilla was attacked by Israeli forces in May 2010, killing nine Turkish citizens. The incident caused a downgrading of diplomatic ties between Turkey and Israel, with the Israeli ambassador being expelled from Ankara in September 2011 after Israel refused to apologize for the killings.



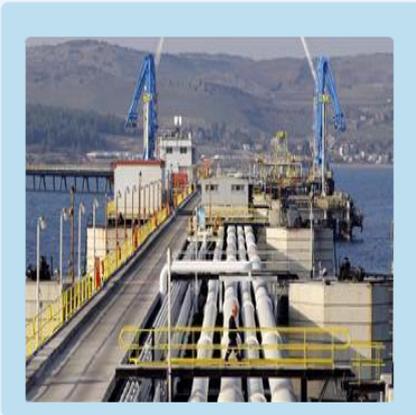
Israel formally apologized in 2013 for what it called “operational mistakes” that might have led to the death of Turkish citizens. Turkey had asked three things from Israel: an apology, compensation and the lifting of the Gaza blockade. Currently, Turkey and Israel are negotiating on a compensation deal, but there is still no agreement. Greek Cyprus President Nicos Anastasiades has said that an agreement to reunify the long-divided island of Cyprus into a Turkish north and Greek south would help ease Turkey’s energy needs. Anastasiades, in an interview with The Associated Press on Monday, agreed that a deal would allow Turkey to be supplied with newly found Greek Cypriot and Israeli natural gas and further contribute to improving relations between Turkey and Israel.

Stressing that the US was a key player in restarting the Cyprus negotiations, Anastasiades said the reasons behind the growing interest in finding a solution to Cyprus problem is the potential for regional energy cooperation and helping to reduce instability in a turbulent area. The volume of gas reserves has been estimated at 5 to 8 trillion cubic feet after Noble Energy, based in Houston, found a large gas field -- since named “Aphrodite” -- in deep water off the coast of Greek Cyprus in 2011. With further testing, the estimate was lowered to 3.6 to 6 trillion cubic feet. Even so, it would be enough to meet Greek Cyprus’s natural gas demands for the next 20 years, experts say.

The Greek Cypriots announced an agreement with French oil company Total last November to develop a natural gas liquefaction plant. The intention is to convert the gas into liquefied natural gas (LNG), a shippable export product, as part of efforts to pull the Greek Cypriot economy out of crisis following recent financial problems. The project is, however, costly. Cyprus was divided into a Turkish-speaking north and an internationally recognized, Greek-speaking south in 1974 when Turkey militarily intervened following a coup by Greek Cypriot supporters of union of the island with Greece. Turkish Cypriots declared their own state, the Turkish Republic of Northern Cyprus (KKTC) in 1983, which is currently only recognized by Turkey.

Iraq says Kurds agree to export oil via central marketing body

Hürriyet Daily News, 20.02.2014



KRG has agreed to export crude via the country's main oil marketing body, Deputy Prime Minister for energy Hussain al-Shahristani said, potentially removing a major sticking point in a resource row with the central government.

The autonomous region's prime minister and top energy official travelled to Baghdad earlier this week, intensifying efforts to settle the long-running dispute over exports of oil from KRG via a new independent pipeline to Turkey. The region has previously insisted it will export crude on its own terms, bypassing Iraq's State Oil Marketing Organization (SOMO), but Shahristani said the Kurds had finally relented.

"After hours of meetings, we have agreed that our brothers in the region will be represented in SOMO and agreed that this is the sole national outlet responsible for exporting oil," Shahristani said in an interview on Iraqi state television late on Feb. 19. "This is an important step forward". Baghdad has repeatedly threatened to sue Ankara and slash KRG's share of the national budget if exports go ahead through the pipeline without its consent. The pipeline was completed late last year, and oil has since been pumped through it into storage tanks at Turkey's Ceyhan, but exports from the Mediterranean port are on hold to give diplomacy a chance. Negotiations have carried on for months with little progress and Shahristani said differences remained over revenue-sharing.

"The second issue that is still unresolved is that they want the revenue from oil exports to be deposited in a private account for the region in the DFI (Development Fund for Iraq)," Shahristani said. Revenue from the sale of Iraq's oil is paid into the DFI in New York for Baghdad to disburse. KRG is entitled to a 17 percent share, but says it in fact receives far less than that, and in recent weeks has accused Baghdad of withholding funds, leaving civil servants in the region unpaid. Shahristani said the finance ministry had now sent enough cash to cover the salaries of Kurdish government employees for January, but faced a liquidity crisis and would not be able to pay in February or after that unless the region resumed oil exports.

"The Finance Ministry said it will not be able to keep paying salaries whilst the region is still not delivering oil," he said. "The ministry has stopped payments to the region and the only solution for this real problem is for the region to start exporting oil". Crude from KRG used to reach world markets through a Baghdad-controlled pipeline, but exports via that channel dried up due to a row over payments for oil companies operating in the northern enclave. Since then, the Kurds have been exporting smaller quantities by truck across the border whilst building the pipeline to Turkey and negotiating a multi-billion dollar energy deal with Ankara.

Kurds step up negotiations with Baghdad on oil, Iraqi budget

Hürriyet Daily News, 17.02.2014



Iraqi Kurds' prime minister and energy head travelled to Baghdad on Monday to intensify efforts to settle a long-running dispute with the central government over the region's oil exports via a new pipeline to Turkey.

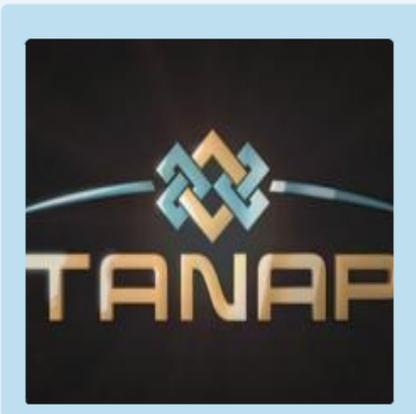
Baghdad has threatened to sue Ankara and slash the autonomous region's share of the national budget if exports go ahead through the pipeline without its consent. The pipeline was completed late last year, and oil has since been pumped through it into storage tanks at Turkey's Ceyhan, but exports from the Mediterranean port are on hold to give diplomacy a chance.

Negotiations have carried on for months with little progress. As Kurdish Prime Minister Nechirvan Barzani and Minister of Natural Resources Ashti Hawrami headed for Baghdad, however, one industry source said he foresaw a breakthrough "in a week or two", adding, "If it takes any longer than that, there is a problem." Crude from Kurds used to reach world markets through Baghdad's infrastructure, but exports via that channel dried up due to a row over payments for oil companies operating in the northern enclave. Since then, the Kurds have been exporting smaller quantities by truck across the border whilst building the pipeline to Turkey and negotiating a multi-billion dollar energy deal with Ankara. The landmark deal laid the ground for development of the infrastructure for Kurds to export some 2 million barrels per day (bpd) of oil to world markets and at least 10 billion cubic metres per year of gas to Turkey.

The sources said there were some technical issues with the pipeline, including air pockets, which have been resolved and that oil was flowing more or less continuously, albeit in small quantities. The Kurdish pipeline ties into an existing network controlled by Baghdad that links the northern Kirkuk oilfields to Ceyhan. Both are using the same pumping station, which has caused some problems. The Kurds plan to install their own pumping station, but it has yet to be commissioned and will take several months to put in place, the sources said. In Istanbul last week, Barzani and Hawrami met Turkish Prime Minister Tayyip Erdogan, who reiterated his commitment to the deal with Kurds, according to a statement on the Kurds Regional Government's website.

TANAP ready to welcome Central Asian gas

Today.Az , 15.02.2014



TANAP project is open for Central Asian gas, the Caspian Strategic Institute (HASEN) quoted Deputy Head of SOCAR Turkey as saying on February 15. Speaking at a conference held at HASEN, Kerimli said the TANAP project will be financed from own sources, and investments in the amount of \$12 billion are needed for the implementation of the project. He also noted that TANAP will be one of the biggest projects in the world from a technological point of view.

“The first supply of gas via TANAP will be conducted in 2018,” Kerimli said, adding that Turkey will become one of the three large gas markets in Europe.

Jointly developed by Azerbaijan’s state energy company SOCAR, Turkish state pipeline company Botas, and energy company TPAO, the TANAP project will deliver gas from Azerbaijan’s giant Shah Deniz field to the Turkish-Greek border via eastern Turkey. The initial capacity of the pipeline will be 16 billion cubic meters of gas a year and it will be connected to the Trans Adriatic Pipeline (TAP) on the Turkish-Greek border. Turkey owns a 20-percent share in the project, while the rest of the shares belong to Azerbaijan.

Greek Cyprus and Greece: dilemmas in energy infrastructure

Natural Gas Europe, 15.02.2014



The European Commission recently marked as a Project of Common Interest the pipeline that will link the Greek and Cypriot deposits lifting the hopes of both Athens and Nicosia about the possibilities of seeing this project materializing.

The project seeks the construction a pipeline connecting the Leviathan field offshore Israel, to Greek Cyprus and the eastern part of the Island of Crete in Greece. In order to connect the supply of this pipeline to the EU market alternate routes were discussed, including connections from Crete to TAP, the Interconnector Greece-Bulgaria (IGB) and the Revythousa LNG terminal close to Athens.



The capacity of this pipeline is scheduled at 8-10 bcm per annum, and the Cypriot authorities expect that equivalent quantities could be available for the proposed LNG terminal if Israel participates, allowing thus for both projects to be viable. However this is just an assumption for the moment and the examination of the economics of these alternatives makes the political nature of this debate clear. Assuming that the forecasts of reserves materialise, the construction cost of the transmission line becomes central issue between these two options. A new built LNG facility will be one of the costliest constructs in the modern energy industry, as in previous cases building costs have been around \$10 bn with the cost building up to \$8 bn and \$6 bn, if in the future there is a 2nd and 3rd unit added respectively.

Despite its large cost, it still remains a cheaper option compared to the East Med Pipeline, which will require an investment of at least \$20 bn, as ENI suggests. A number of technical, financial and geopolitical factors mark this project as one of the most expensive projects internationally. The choice between these two alternatives will have direct implications on the long term pricing structure and distribution options of the energy triangle Greece-Greek Cyprus-Israel to the rest of Europe and probably the world markets. In the case of the pipeline option, natural gas will be able to reach the EU markets at a lower cost compared to LNG, as there is no liquefaction and then regasification is required before reaching to the natural gas markets.

Nevertheless, we must not forget that the high cost of the pipeline will have to be integrated in the pricing of the natural gas. Moreover, the supply route will be predetermined thus excluding the possibility of targeting alternative markets but strengthening the energy security and the possible scenarios of region's energy independence possibly in combination with an increase in capacity from Renewable Energy Sources (RES). The option of LNG construction will provide Greek Cyprus with the flexibility to seek alternative markets in case of EU demand swings. Additionally, even though this option will mean direct competition with LNG coming from the Middle East and Africa, the lower transportation costs and the country's participation in the Eurozone, automatically secure a significant advantage of Greek Cyprus over its competitors.

This option will also trigger long term indirect benefits to other sectors of strategic importance for the countries of energy triangle, as the activity of shipping, engineering and servicing companies will be increased significantly. This will happen because the involvement of these companies will be required for the maintenance and conservation of the units and the transmission system, increasing thus demand of skilled labour as well as the absorption of energy related capital by Greek Cyprus and Greece. The dilemma therefore can be argued to be more political and geo-strategic than economic. Although, the construction of a pipeline could secure cheaper gas in the long term, primarily for the Greek market and consequently for the EU markets, the LNG option might be more favorable for the Greek and Cypriot economies in the short horizon.

Amid these significant developments and debates in the energy landscape of the country and the wider region of south-eastern Mediterranean, the 'Greek Energy Forum', a network of Greek professionals working in London and the wider EU in the field of energy, has been established. Its mandate is to capitalize on the multi-faceted experience of its members in energy issues, in order to assist the process of making the country a strategic energy player within the wider Mediterranean.

ENI, Greek Cyprus to sign LNG MoU

Natural Gas Europe, 17.02.2014



Greek Cypriot minister of Lakkotrypis met with the high management of ENI in order to finalize an MoU agreement for the participation of ENI in the island's LNG project. A similar document was previously signed with Total and Noble. Greek Cyprus' multi-billion dollar LNG plant would allow the island the flexibility needed to export its gas to the customers.

The project is now pending further exploratory results that would ensure its commercial viability. Greek Cyprus' Aphrodite field in Block 12 of the island's economic zone was downsized by Noble to a range of 3.6 to 6 tcf of gas, that do not justify alone the pursuit of the endeavor.

Total, Eni-Kogas are scheduled to start exploration activities towards the end of 2014. The recent meeting between the Cypriot minister and the Italian giant indicated however that the company is now considering commencing its work offshore the island around August 2014. The MOU between the Cypriot government and ENI is only pending a decision of the council of ministers and is expected to be signed shortly. The discovery of additional amounts of gas under the island's seabed would ensure the completion of the LNG terminal in Vasiliko on schedule and without the help of other Eastern Mediterranean players. Greek Cyprus had previously urged Israel to pool costs with the island in order to complete the plant but Israel has not to date formulated a decision in this direction. ENI's accelerated involvement could be explained by the recent resumption of talks on ending the division of the island.

Backed by the Americans, the talks will be held under UN supervision. Both President Nicos Anastasiades and his Turkish counterpart Dervis Eroglu seem to want a solution to the Cyprus problem. While all previous talks failed to reach a solution, the existence of abundant reserves of natural gas in the region could this time play a tremendous role in solving the Cyprus problem. Should the division of the island be resolved, a pipeline to Turkey through Greek Cyprus' EEZ would allow Eastern Mediterranean gas to reach a Russia-dominated Europe. The complicated regional geopolitics have threatened to deter investors from injecting large amounts of funds in the development of the Levant basin's hydrocarbon riches. Also remains pending the Israeli-Lebanese maritime border conflict. While the current rivalries and disputes have not completely halted gas explorations, a resolution is necessary for the long term prosperity of the energy industry in the region.

A look at the Leviathan's export options

Natural Gas Europe, 18.02.2014



Last week marked the start of advanced talks between the Leviathan partners and Woodside in sight of the signing of a deal that would allow the Australian giant to purchase 25% of Israel's giant 19 tcf field for an upward revised price tag.

The MOU reflects important changes in comparison to what was originally discussed between the parties in December 2012 when Woodside was looking to acquire 30% of the field for a lower price. The amendments could be explained by the revision to the increase of the size of the field and by Israel's recent shift in export strategy more towards a pipeline-based approach than an LNG strategy.

Israel's adoption of 'pipeline diplomacy' and its consideration of opting for a pipeline to export and monetize its natural gas would reduce infrastructure costs and hence increase the value of the field. Woodside and the Leviathan partners are expected to reach a 'fully termed' agreement by March of this year. The recent developments challenge original speculations that Israel will opt for an LNG terminal either onshore, offshore or in neighboring Greek Cyprus for the flexibility liquefied natural gas offers. Such a plan would have been made in conjunction to Israel's eventual deals with its immediate neighbors. Israel is currently in talks with Jordan, Egypt and the PA in sight of the signing of natural gas deals that would allow Israel to sell its hydrocarbon to its thirsty neighbors.

It is worth exposing all the other options for exporting the Leviathan gas that could be chosen exclusively or mutually. Delek and Ratio were the first to express an interest in a pipeline to Turkey, followed recently by Noble. Israel's apology to Turkey in March 2013 over the Mavi Marmara incident made talks between the two countries possible. The Israeli Antitrust Authority even allowed negotiations between the Leviathan partners and Turkish companies. Turkey makes sense from a commercial point of view. It is a large and growing market with few indigenous resources. However, geopolitics might constitute a hurdle to such a plan with the problem of the division of Greek Cyprus still unresolved. While the Greek Cypriot government would not allow a pipeline from the Leviathan to Turkey crossing its economic waters, a pipeline through Lebanese and Syrian waters is out of the question.

Whether natural gas would be an incentive to find solutions to the complicated and embittered diplomatic relations in the Eastern Mediterranean is another question. An onshore LNG facility would theoretically offer Israel flexibility in terms of the choice of the consumer and independence in terms of its gas dealings. Israel's years of energy vulnerability depending on Egyptian gas to satisfy its natural gas needs would explain why Israel would prefer to be in a position of control now that it is on the other side of the spectrum. Woodside's eventual acquisition of 25% of the Leviathan would also mean that the Australian could inject its extensive LNG expertise to ensure the success of such a project. An LNG project would also bring a lot to the economy, in terms of job creation. However, such an option has not received substantial backing from officials.



A coastal site that would be home to an LNG plant and/or security concerns might push Israel away from an onshore LNG facility. In the absence of an adequate coastal site, why not go for a FLNG? Energy experts seem to dismiss this undertaking given that FLNG is usually adopted in the case of gas found far from shore and in limited quantities, something that does not apply to Israel, particularly given that additional deposits might be discovered. Greek Cyprus is currently in the process of planning an LNG plant in its Vasiliko coastal site. Despite the recent downsizing of the Aphrodite field in Block 12 of its EEZ and Israel's uncertain collaboration in the project, Greek Cypriot officials are keen to see the project come to fruition. Further exploratory activities will take place in 2014 and their success would justify the viability of the endeavor.

Israel's backing would have allowed the island to move forward with the plan in a shorter period of time. Noble Energy's involvement in both countries and the MOU signed between Greek Cyprus, Noble and its Israeli partners in July 2013 led to believe that the two countries would join forces to finalize the plant by 2016. Israel appears to be considering diverse options and it is not unlikely that it will end up opting for several routes in conjunction to diversify its risk and achieve many goals at once: diplomatically, economically and on a security level. Israel has revealed a meticulous approach since the start of its energy path be it in deciding on export quotas or in the early management of future gas revenues. It will be a while before further details unfold and the whole picture of Israel's export policy comes together.

Noble Energy signs deal with Jordanian companies to supply Israeli gas

Natural Gas Asia, 19.02.2014



Noble Energy on Wednesday announced the signing of a gas sales agreement between NBL Eastern Mediterranean Marketing Ltd., the Arab Potash Company, and the Jordan Bromine Company, both of which are located in Amman, Jordan.

Under terms of the agreement, Noble Energy will supply natural gas from the Tamar field, offshore Israel, to Arab Potash and Jordan Bromine for use in their facilities near the Dead Sea. Natural gas sales are anticipated to commence in 2016, once minimal required pipeline infrastructure has been completed, Noble said in a statement.

According to the company, the agreement is for an initial term of 15 years and a total gross contract quantity of approximately 66 billion cubic feet of natural gas. The price for the natural gas sold will be based on a floor price of at least \$6.50 per thousand cubic feet of natural gas with upside linked to Brent crude oil prices. Gross revenues are estimated at \$500 million, with actual sales dependent on final purchased quantities and oil prices at the time of sale.

Drilling operation in south pars phase 18 complete

Natural Gas Asia, 15.02.2014



Drilling work in phase 18 of giant South Pars gas field project has drawn to a close, News Agency said citing Alireza who oversees well-drilling operations for phases 17 and 18 of the project. The drilling program started in 2010 and a total of eleven wells were sunk in phase 18 until now and works will continue, Laiji said.

He further added that drilling work in phase 17 is 99 percent complete and will finish in a matter of weeks, reported Shana. “The completion of this project while [Iran is] under sanctions is a great achievement for the country’s oil industry,” Laiji pointed.

When complete, phases 17 and 18 of South Pars are projected to supply 50 million cubic meters of natural gas, 80 thousand barrels of gaseous condensates and 400 tons of sulfur on a daily basis as well as one million ton of ethane annually. The South Pars gas field, divided into 28 phases, is located in the Persian Gulf on the common border between Iran and Qatar. The field is estimated to contain 14 trillion cubic meters of gas plus 18 billion barrels of condensates.

Iran’s COFC’s gas output to hit 90 bcm

Natural Gas Asia, 18.02.2014



Iran’s Central Oil Fields Company’s (ICOFC) annual gas production will touch 90 billion cubic meters (bcm) at the end of current Iranian calendar year (ends on 20 March 2014), the company said. The total gas produced would be valued at \$42 billion. ICOFC meets almost half of Iran’s gas needs.

According to Salbali Karimi, managing director of ICOFC, company’s daily production hit record high of 306 mcm, more than the target set by the firm. ICOFC is one of the five subsidiaries of NIOC. It is in charge of 46 gas fields and 27 oil fields of which 10 oil fields and 14 gas fields are on stream and the remaining fields are under development.

Iran, Indonesia plan \$3 billion refinery

Oil&Gas Journal, 18.02.2014



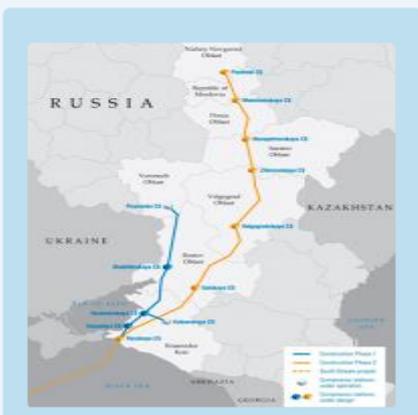
PT Kreasindo Resources Indonesia (KRI) and Iran's Nakhle Barani Pardis Co. (NBP), Tehran, have entered an agreement for the planned construction of a grassroots refinery in Indonesia.

KRI and NBP signed a memorandum of understanding on Feb. 11 to explore the feasibility of building a refinery designed to process heavy crude oil in either West Java Province or Banten Province, Indonesia, KRI President Rudy Radjab told OGJ. Under the agreement, KRI will own 70% of the planned 300,000-b/d refinery, while NBP will own the remaining 30% and act as the refinery's heavy crude supplier.

Currently, the companies estimate the refinery will require an investment of \$3 billion, which is based on an initial capacity of 150,000 b/d, Radjab added. With both the bankable feasibility and site selection studies still to be completed, a specific timeframe for the project is not yet available.

Five potential sources of gas for Europe

Natural Gas Europe, 17.02.2014



In his assessment of potential sources of gas for Europe at the European Gas Conference 2014, John Roberts, Energy security Specialist, Methinks speaks, said it was too early to judge the potential of natural gas from the Eastern Mediterranean. "We know that there's about 1TCF of reserves there, there's probably more to be found," he remarked.

"We don't know when and how much will be approved for export, because instead of trying to think of it as 60% being for the Israeli market and 40% for export, it's far more important to realize that in practice Israel wants to retain a basic minimum and anything above that is available.

"So, in other words, as more gas is found, the percentage will change in favor of export," said Mr. Roberts, who said it was realistic to assume that the Tamar gas field would continue to supply Israel domestically, for the next 20 years or so, while the Leviathan would be primarily used for export. What about the Aphrodite discovery off of Greek Cyprus? he asked. "A contraction in the size of the reserve means it's not worth developing right now, except if it is used for Cypriot domestic purposes." But then what about preserving a decent volume for LNG exports in the future?



Towards that prospect, he said: “Because Israel may be prepared to provide gas to Vasilikos for LNG if it’s not going to be the supplier of most of the gas for Vasilikos.” On the subject of export routes, he said there were two completely different views on maritime boundaries involving Greek Cyprus-Greece and Turkey-Egypt and the connotations for underwater pipelines. However, given that political circumstances surrounding the Cyprus problem were somewhat better than they’d been for a while, Mr. Roberts said a twin track approach was possible that would enable Leviathan exports to go by pipeline to Turkey, which would cost an estimated USD 2 billion.

He asked, “Does it have an impact on Europe? Yes, very simply, if you put 6-7BCM/year into southern Turkey you don’t need to connect it up to Europe to have an impact because of the large demand for gas in southern Turkey.” This, he explained, would free up gas there coming from other sources. Regarding Iraq, he said there were more definite plans to get gas into Turkey, even though estimated volumes were over optimistic, according to him. “One does have to realize,” he pointed out, “that this is not stranded resources – this is stranded production.

The investment has, in many cases, already been made, which means they want to get the gas out and they are in a position to do so if we get a positive result one way or the other for the current impasse over Kurdish oil exports.” Then, offered Mr. Roberts, there was the gas that would come from the Southern Corridor. He started off speaking about the cost. “We’re talking about USD 50 billion for the whole chain, and it is not complete. TANAP (Trans Anatolian Pipeline) is being built with expansion in mind; TAP (Trans Adriatic Pipeline) is being built with expansion in mind and we’ve heard it can be incremental.” Meanwhile, USD 4-5 billion was being spent on the South Caucasus Pipeline, but only to the full extent that it could carry the full output of Shah Deniz II in addition to Shah Deniz I.

With additional source considerations, like the Absheron gas field, a loop pipeline of 200km through the mountains of Georgia might be required, at significant cost. He commented, “That’s at least a couple of billion dollars.” Without that investment, he opined, there would be no scope for such gas developments down the line, including from Turkmenistan. Of TANAP’s costs, he said they ranged USD 7.9 to 17.9 billion. “We are talking about an awful lot of money. A report on Natural Gas Europe said it could cost as much as USD 20 billion. No wonder Statoil and TOTAL got cold feet, questioning whether there was any present value in the project; if you’re BP that’s part of the capital outlay that you have to pay,” he said.

Still, according to Mr. Roberts, it would be built and would be able to carry more than the initial 10BCM. “So it does provide the backbone to cover the basic core of a new artery to Europe.” And what of Russia’s Southern Corridor? He said it was another USD 50 billion project, but noted that Gazprom had been told by the Ministry of Economy to cut capital spending by 10%/year for 5 years, a cumulative total of around 40%. “So it’s going to be tight and we haven’t got into the costs that South Stream itself will cost USD 10-12 billion, and that’s just for the maritime section,” he explained. His presentation read “two strings probable, four strings questionable.” There was also uncertainty regarding the minority shareholders’ commitment to the project, he said, judging from a major announcement regarding the project over a year ago.

Mr. Roberts commented: “When did you ever see the third sentence of a major announcement saying ‘the minority shareholders maintain the right to leave the project in case their preconditions will not be satisfied in the future’? That’s usually left in small print – not usually put at the end of the first paragraph. “Yet, what is more interesting is that this is a project that is going to be built.” The Russians, he recalled, had recently said they would be speaking to the EU about South Stream, likely seeking exemptions. “It means they will go ahead with the project under EU regulations. The Second Energy Package makes it absolutely clear that they have a right to develop an energy project on a commercial basis that ensures they get a return on their investment,” he explained.

Finally, Mr. Roberts mentioned Iran, calling it a “real oddity.” Solving the nuclear problem there, he said, was necessary but not sufficient. “You also need reform of the domestic economy and, secondly, we have a major immediate issue in gas: in the next 3 years we have 90BCM of new capacity is coming online from four phases of the South Caspian development. “For the first time, we are likely to see Iranian production vastly outstrip the increase in Iranian consumption. They will have a surplus to export. They now have a focus on exports and I think this is what makes the (President) Hassan Rouhani administration different from its predecessors in that it’s not simply looking to provide oil for foreign currency, but gas.”

Dana Gas signs agreement for concession off Nile Delta

Oil&Gas Journal, 19.02.2014



Dana Gas PJSC signed an agreement for the North El Arish Block 6 concession off the Nile Delta, according to a company announcement. The Sharjah-based company was awarded 100% interest in the concession last April after blocks were put up for bid by the Egypt Natural Gas Holding Co. (OGJ Online, April 22, 2013).

Dana Gas says it has already begun a 4-year exploration phase that will include acquiring seismic data and drilling an exploration well. The 2,980 sq km Block 6 sits in waters as deep as 1,000 m and is near other large gas finds in the Levantine basin.

The company further said it was awarded the 32 sq km Balsam development lease in the West El Manzala concession, Nile Delta region. This brings the company’s total number of leases to 13. Dana Gas said its total average 2013 production was 36,700 boe/d.

Future of long-term contracts depends on spot market link, says GDF

Natural Gas Europe, 15.02.2014



France's GDF Suez said that the future of long-term gas contracts' depends on their flexibility, explaining that if the suppliers will not reinforce deals' links with spot prices, European utilities could ditch them.

"The alternative is to stop the long-term contracts" linked to oil prices and get supply from the spot market, Vice Chairman Jean-Francois Cirelli told Bloomberg. Cirelli called on Russia's Gazprom, Algeria's Sonatrach and Norway's Statoil to limit oil-indexation. GDF, Eni, E.ON and RWE have pressed suppliers to move on. According to Eni's Paolo Scaroni, Statoil is the most reluctant to embrace market mechanisms.

Gazprom to test composite pipes in 2015

Natural Gas Europe, 15.02.2014



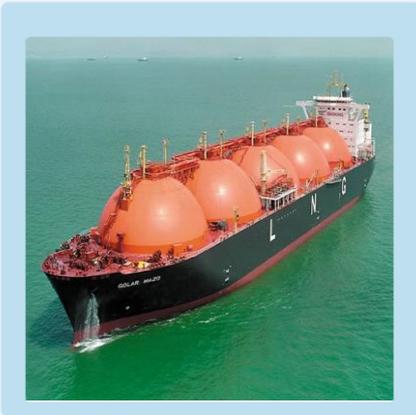
Russia's Gazprom is moving closer to test composite pipes in order to increase efficiency in gas transportation. Alexey Miller met Anatoly Chubais, Chairman of the Rusnano Executive Board, to discuss details of their agreement.

"It's a high time to carry out a specific project for composite materials use at our trunk lines. For this purpose we are going to choose a gas pipeline section to become a testing ground for determining the capabilities of a composite pipe," said Miller in a note released on Thursday. The two Russian companies agreed to conduct R&D activities before June 2015.

Rusnano was established in March 2011 through the reorganization of the state-owned Russian Corporation of Nanotechnologies.

Pakistan's SSGC plans to issue fresh LNG import tender

Platts, 19.02.2014



Pakistan's state-owned gas utility Sui Southern Gas Co is planning to issue a fresh LNG import tender to fill the country's widening gas supply shortfall and the petroleum ministry will soon submit a proposal to this effect to the Economic Coordination Committee for approval, a petroleum ministry official said Tuesday.

The official declined to say what volumes SSGC is expected to seek in the tender, but according to local industry officials, the government would look to import 500,000 Mcf/d, which works out to around 3.75 million mt/year. SSGC has previously issued four tenders to import LNG.

But three were scrapped by the ECC due to pricing issues. These tenders had generated interest from several global oil companies including ExxonMobil, Shell, GDF Suez and ConocoPhillips, Platts reported earlier. A fourth tender -- seeking upto 400,000 Mcf/d of LNG -- was approved and Elengy Terminal Pakistan, which is a subsidiary of Pakistan's agriculture and food company Engro Corp., will be supplying LNG under this tender. SSGC and Elengy are however, yet to ink a firm supply agreement. Pakistan currently produces around 4 Bcf/d of gas against demand for 5.8 Bcf/d, which rises to above 6 Bcf/d in the winter months. With piped gas imports from Iran and Turkmenistan a distant dream, the government has stepped up efforts to import LNG.

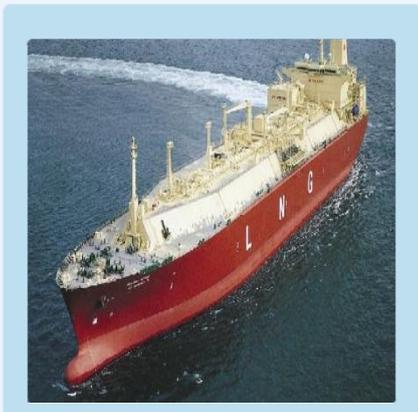
The ECC, which is the country's highest decision making body, last year approved three LNG projects -- SSGC's LPG Retrofit Project; Elengy Terminal's Fast Track LNG project; and a third LNG import terminal for which a construction tender is yet to be issued. SSGC's LPG retrofit project involves retrofitting the gas utility's LPG import facility to handle LNG. This project is expected to be completed by mid-2015 and will have a regasification capacity of 500,000 Mcf/d. Elengy Terminal's project will have a regasification capacity of 200,000 Mcf/d in the first year and rise to 400,000 Mcf/d from the second year onward, according to information on Engro Corp.'s website.

Elengy will lease the terminal out on a tolling basis for 15 years. Construction of this terminal is expected to be completed 11 months after the company and the government has agreed on a tolling fee. The petroleum ministry has sent for approval to the ECC the tolling fee proposed by Elengy Terminal, the official said Tuesday. Elengy has sought a tolling fee of \$0.66/MMBtu, the official added. Both SSGC's and Elengy's facilities are located at Port Qasim in Karachi. A Pakistani delegation led by petroleum minister Shahid Khaqan Abbasi is currently in Qatar to take further a memorandum of understanding signed between the two countries on LNG imports in February 2012. The delegation is expected to nail down a final LNG price during this trip, according to ministry officials.

Qatar has sought \$18/MMBtu but Pakistan wants that price lowered. Meetings between the two sides are expected to end Thursday. The Pakistani delegation also includes Amjad Parvez Janjua, the managing director of state-owned oil marketing company Pakistan State Oil. The Pakistan government has asked PSO to help with LNG imports since the company is already engaged in imports of petroleum products and has a good standing in the international market.

Qatar becomes Thailand's biggest LNG supplier

Natural Gas Asia, 15.02.2014



Qatar's LNG industry reached another milestone when the Gulf state replaced Yemen as Thailand's biggest supplier of LNG in 2013, reports Gulf Times. The Gulf state is world biggest exporter of the fuel with a capacity in excess of 77mn tons a year. The LNG segment plays an important role in the economy.

But over the next few years, Qatar may see increasing competition in the global LNG market with new production facilities coming online in Australia and North America, adds Gulf Times. Demand is gradually shifting towards Asia with consumption rising in countries like Japan, China and India.

At the same time, shale gas boom in the US has led to drop in US imports of LNG. According to the newspaper, reflecting these changes in the global energy market, Qatar has redirected its LNG exports over the last three years from the US to Asia. China started importing LNG from Qatar in August 2013. Japan has switched from nuclear to gas-fueled power stations following the Fukushima disaster, which has more than made up for the loss of US LNG imports, says Gulf Times. Other economies in Asia are increasing their imports of LNG gas from Qatar, including Malaysia and Thailand. Demand from Asia is likely to continue to remain strong as its economies expand rapidly over the medium term. Qatar, therefore, is unlikely to lose its leading role in the global energy market for many years to come, the newspaper adds.

Saudi America

The Economist, 15.02.2014



The benefits of shale oil are bigger than many Americans realise. Policy has yet to catch up. Dennis Lithgow is an oil man, but sees himself as a manufacturer. His factory is a vast expanse of brushland in west Texas.

His assembly line is hundreds of brightly painted oil pumps spaced out like a city grid, interspersed with identical clusters of tanks for storage and separation. Through the windscreen of his truck he points out two massive drilling rigs on the horizon and a third about to be erected. Less than 90 days after they punch through the earth, oil will start to flow.

What if they're dry? "We don't drill dry holes here," says Mr Lithgow, an executive for Pioneer Natural Resources, a Texan oil firm. In the conventional oil business, the riskiest thing is finding the stuff. The "tight oil" business, by contrast, is about deposits people have known about for decades but previously could not extract economically. Pioneer's ranch sits at the centre of the Permian Basin, a prehistoric sea that, along with Eagle Ford in south Texas and North Dakota's Bakken, are the biggest sources of tight oil, a broad category for the dense rocks, such as shale, that usually sit beneath the reservoirs that contain conventional oil. Since 2008 tight-oil production in America has soared from 600,000 to 3.5m barrels per day. Thanks to tight oil and natural gas from shale, fossil fuels are contributing ever more to economic growth: 0.3 points last year alone, according to J.P. Morgan, and 0.1 to 0.2 a year to the end of 2020, according to the Peterson Institute, a think-tank.

Upscale furniture stores and luxury-car dealerships have sprung up in Midland since the boom began. Mr Lithgow has truck drivers who earn \$80,000 a year. Local oil-service firms have been known to hire fast-food workers on the spot. In all, the unconventional-energy boom will create up to 1.7m new jobs by 2020, predicts McKinsey, a consultancy. And that is only part of the story. Another benefit of tight oil is that it is much more responsive to world prices. Some economists think this could turn America into a swing producer, helping to moderate the booms and busts of the global market. Pioneer is rapidly boosting production. But Scott Sheffield, the company's boss, worries that in a few years he will run out of customers; America has prohibited the export of crude oil since the 1970s.

At \$100 a barrel, the price of West Texas Intermediate (the most popular benchmark for American oil) is comfortably above the break-even cost of tight oil. But the prospect of a glut has futures pricing it at \$20 less in 2018. "There will be a lot less oil-drilling when you take \$20 out of everybody's margin," says Mr Sheffield. Until the early 1970s, America was the world's largest oil producer and the Texas Railroad Commission stabilised world prices by dictating how much the state's producers could pump. When Arab states slapped an oil embargo on Israel's Western allies after the six-day war in 1967, Texas cushioned the blow by allowing a massive production boost.



But rising consumption and declining production eroded the state's spare capacity, and in March 1972 Texas called for flat-out production. "This is a damn historic occasion and a sad occasion," the Texas Railroad Commission's chairman declared. When Arab producers imposed another embargo the next year, prices rocketed. America had lost the role of world price arbiter to OPEC, a cartel dominated by despotic regimes. American politicians tried desperately to curb consumption (for example, by lowering speed limits) and to conserve supplies. American production declined steadily from a peak of 9.6m barrels a day in 1970 to under 5m in 2008. About then, independent producers began adapting the new technologies of hydraulic fracturing ("fracking") and horizontal drilling, first used to tap shale gas, to oil.

Total American production has since risen to 7.4m barrels a day, and the Energy Information Administration, a federal monitor, reckons it will return to its 1970 record by 2019. The International Energy Agency is more bullish; it reckons that by 2020 America will have displaced Saudi Arabia as the world's biggest producer, pumping 11.6m barrels a day. Besides directly creating new jobs and income, the fossil-fuels boom could help growth by reducing America's vulnerability to oil-price swings, in two ways. First, as production rises and imports shrink, more of the cash that leaves consumers' pockets when the oil price rises will return to American rather than foreign producers. David Woo of Bank of America/Merrill Lynch notes that America's petroleum deficit has narrowed to 1.7% of GDP while Europe's has widened to nearly 4%, which seems to have made both the dollar and the economy less sensitive to oil prices.

The second channel lies in the economics of shale. Oil flows relatively easily through the porous rocks that make up a conventional reservoir, so a conventional well can tap a large area. As a result, the volume of oil pumped each day declines slowly, on average at 6% per year. By contrast, oil flows much more sluggishly through impermeable tight rock. A well will tap a much smaller area and production declines quite rapidly, typically by 30% a year for the first few years (see chart 2). Maintaining a field's production levels means constant drilling. The International Energy Agency reckons maintaining production at 1m barrels per day in the Bakken requires 2,500 new wells a year; a large conventional field in southern Iraq needs just 60.

This all means that when oil prices rise, producers can quickly drill more holes and ramp up supply. When prices fall, they simply stop drilling, and production soon declines. In early 2009, after prices collapsed with the global financial crisis, Pioneer shut down all its drilling in the Permian Basin. Within six months, output in the affected areas dropped by 13%. Bob McNally of Rapidan Group, an industry consultant, predicts that America could be "force-marched" back to the stabilising role it played in the 1960s, this time responding to the market's invisible hand rather than government diktat. Will that work in practice? It may already have done so. Since 2008, the Peterson Institute notes, turmoil in Sudan, sanctions on Iran and declining North Sea output have taken a lot of oil off the market.

Without America, which accounted for half of the growth in global output over that period, Persian Gulf producers might not have been able to make up for the loss. Prices could have risen sharply, hurting consumers everywhere. Yet they did not. Oil firms try not to over-react to short-term price fluctuations, of course. Capital, equipment and labour all cost money, so they try to ramp up production only in response to what they think will be long-term shifts in the oil price. The ban on crude-oil exports hurts producers and makes it harder for America to become a swing supplier. Light, sweet West Texas Intermediate already trades at a discount of \$8 to Brent, its global peer.



That is due mostly to transport and storage bottlenecks in America, but increasingly the export ban makes a difference. In recent decades American refiners have reconfigured themselves to handle the heavier, sour oil imported from Mexico, Venezuela and Canada's tar sands, leaving them with less capacity for refining tight oil, which is light and sweet. The oil price at which shale producers break even ranges from \$60 in the Bakken to \$80 in Eagle Ford, reckons Michael Cohen of Barclays, a bank. If exports yielded an extra \$1 to \$1.30 a barrel, he estimates that might raise total output by as much as 200,000 barrels per day. If the ban were lifted, crude-oil exports could start more or less straight away. The necessary pipes and tankers are mostly there already.

But the political debate is only in its infancy. By law the president can allow exports he considers in the national interest. Barack Obama has yet to express a view on the ban. Legislators from non-oil-producing states are wary. "For me the litmus test is how middle-class families will be affected," says Ron Wyden, the Democratic chairman of the Senate energy and natural resources committee. The main beneficiaries of the ban are the refiners. They buy light, sweet American crude for less than the global price, turn it into petrol and then sell that at the global price. Exports of refined petroleum products are not banned, and have, unsurprisingly, soared.

Defenders of the ban claim that if America exported more oil, Saudi Arabia would reduce its own output. Prices to American consumers would not fall, they say, and might even rise. Historical evidence says otherwise, however. When Congress allowed Alaska to export crude oil in 1995, its west-coast customers did not pay any more for petrol, diesel or jet fuel. Oil producers would obviously benefit from lifting the ban. So might other Americans, in less obvious ways. A global oil market that fully included America would be more stable, more diversified and less dependent on OPEC or Russia. The geopolitical dividends could be hefty. As Pioneer's Mr Sheffield notes, "It's hard to believe we're asking the Japanese to stop taking Iranian crude, but we won't ship them any crude ourselves."



Announcements & Reports

▶ *Energy Technology Perspectives 2014 - Harnessing Electricity's Potential*

Source : International Energy Agency

Weblink : <http://www.iea.org/w/bookshop/add.aspx?id=472>

▶ *Syria Country Analysis Brief*

Source : Energy Information Administration

Weblink : <http://www.eia.gov/countries/analysisbriefs/Syria/syria.pdf>

▶ *World Energy Issues Monitor 2014*

Source : World Energy Council

Weblink : <http://www.worldenergy.org/publications/2014/world-energy-issues-monitor-2014>

▶ *OPEC Bulletin (Jan. 2014)*

Source : Organization of the Petroleum Exporting Countries

Weblink : http://www.opec.org/opec_web/static_files_project/media/downloads/publications/OB012014.pdf

▶ *Monthly Oil Market Report (Feb. 2014)*

Source : Organization of the Petroleum Exporting Countries

Weblink : http://www.opec.org/opec_web/static_files_project/media/downloads/publications/MOMR_February_2014.pdf



Upcoming Events

▶ *Iranian Association for Energy Economics International Conference*

Date : 08 – 09 March 2014
Place : Tehran – Iran
Website : <http://iraee.org/Iran-post-sanctions-Energy-and-Environment/>

▶ *2nd Eastern Mediterranean Gas Conference*

Date : 10 – 12 March 2014
Place : Tel Aviv – Israel
Website : <http://www.cvent.com/events/eastern-mediterranean-gas-conference/event-summary-e32df9adca4b4fe6aea63c049a85b9eb.aspx>

▶ *4th Annual Energy Trading Regulations & Compliance 2014 Summit*

Date : 11 – 12 March 2014
Place : London – UK
Website : <http://www.etrsummit.com/#!/home/c1trp>

▶ *CIPPE 2014*

Date : 19 – 21 March 2014
Place : Beijing – China
Website : <http://www.cippe.com.cn/2014/en/>

▶ *Unconventional Gas Aberdeen 2014*

Date : 25 – 26 March 2014
Place : Aberdeen – UK
Website : <http://www.unconventionalgasaberdeen.com/>

▶ *8th Atyrau Regional Petroleum Technology Conference*

Date : 1 – 2 April 2014
Place : Atyrau – Kazakhstan
Website : <http://www.oiltech-atyrau.com/>

▶ *TUROGE 2014*

Date : 9 – 10 April 2014
Place : Ankara – Turkey
Website : <http://www.turoge.com/>



► *13th Uzbekistan International Oil & Gas Exhibition*

Date : 13 – 15 May 2014
Place : Tashkent – Uzbekistan
Website : <http://www.oguzbekistan.com/>

► *5th Turkmenistan Gas Conference*

Date : 21 – 22 May 2014
Place : Ashgabat – Turkmenistan
Website : <http://www.turkmenistangascongress.com/>

► *21st Caspian International Oil & Gas Exhibition*

Date : 3 – 6 June 2014
Place : Baku – Azerbaijan
Website : <http://www.caspianoil-gas.com/>

► *International Conference of Energy and Management 2014*

Date : 5 – 7 June 2014
Place : Istanbul – Turkey
Website : <http://www.bilgi.edu.tr/en/news-and-events/news/3189/call-for-international-energy-and-management-conference/>

► *4th Erbil Oil & Gas International Exhibition*

Date : 1 – 4 September 2014
Place : Erbil – Iraq
Website : <http://www.erbiloilgas.com/>

► *South Russia Oil & Gas Exhibition*

Date : 2 – 4 September 2014
Place : Krasnodar – Russia
Website : <http://oilgas-expo.su/>

► *2nd East Mediterranean Oil & Gas Conference*

Date : 9 – 10 September 2014
Place : Paphos – Greek Cyprus
Website : <http://www.eastmed-og.com/Home.aspx>