

## Israel favors gas exports through Turkey

AA Energy Terminal, 27.05.2016



The only route big enough for Israel's gas exportation is a country like Turkey which is capable of providing infrastructure and further exportation to the West, said the Consul-General of Israel in Istanbul.

Shai Cohen spoke about a possible gas agreement to carry Israeli gas to the European market through Turkey. "An Israeli-Turkish deal is natural under the circumstances of the region, what is happening now in the region, our relations with our neighbors and so on. This is real politics. The situation in the region right now demands this kind of energy cooperation for Israel and Turkey," Cohen said.

Turkish and Israeli private sector companies are discussing a possible gas pipeline project between Israel and Turkey to transport natural gas supplies to Europe from the Leviathan gas field, which holds an estimated 500 billion cubic meters of gas.

"From the geopolitical point of view, without Turkey as a hub for energy sources, and especially natural gas from east to west and from north to south, it will be very difficult to really diversify and be effective in the diversification of energy resources," he said.

According to Cohen, the supply of natural gas requires adequate infrastructure. Because of Turkey's geopolitical location, it is very important that much of the natural gas transfers would be through Turkey and with Turkish involvement in infrastructure construction of pipelines and LNG stations. Cohen added that such a project would be costly and would require the goodwill of investors, construction companies and both governments.

The pipeline infrastructure, the development of the gas fields and the pipeline to the Southern Turkish would cost about \$4 billion alone, not counting further expenses which would be conducted afterwards, Cohen explained.

"I would say that there is already goodwill at least from the private sector. It is only a matter of time for us to start moving on this project. It is a matter of time because everybody understands the need," he asserted. Israel is currently preparing the legalities to export its natural gas. However, Israel's High Court of Justice declined the government's natural gas outline agreement with energy companies in March and sent it back to the national parliament for review.

Cohen said the Israeli government submitted the new plan for energy and the development of natural gas fields which the Cabinet then approved. "There was a Supreme Court decision a few months ago to reject the plan that was presented by the government back then. But it has been newly approved by the Cabinet, and if there is no objections and if it doesn't come again to the Supreme Court, it will be confirmed and the works will start," he explained. "For the long run it will be beneficial because it will serve also to rebuild the confidence between both countries.

In such an issue like energy it will be like a benchmark for confidence building measures for future relations,” he added. Turkey and Israel are continuing their reconciliation talks to fix bilateral relations which were strained in 2010 when Israeli commandos stormed the Mavi Marmara, a humanitarian aid ship in international waters, killing 10 Turkish activists.

## Valeura CEO: Turkey can increase gas production

AA Energy Terminal, 24.05.2016



Turkey can significantly increase its natural gas production in the future, according to Jim McFarland, president and chief executive officer of Canadian energy company Valeura.

In an exclusive interview with Anadolu Agency, McFarland said that Valeura, which has been operating in Turkey since 2010, considers that the country is relatively under-explored onshore with good undiscovered potential for both gas and oil, particularly unconventional resources. Valeura narrowed its focus to the Thrace basin of Turkey, to the west of Istanbul, but added that the company has licenses in eastern Turkey where they have found oil potential.

“We think there is really big potential for unconventional gas. There is still potential for conventional gas as well. It’s hard to say how big this potential is but third party studies are being carried out to access the capacity,” McFarland said.

According to the U.S. Energy Information Administration in 2013, shale gas and oil potential across Turkey is about 23 trillion cubic feet of gas and 4.7 billion barrels of oil. This includes potential in western Turkey in the Thrace Basin and in the east in the Anatolian Basin.

He explained that the potential in Turkey’s east is mainly with oil, but given the lower returns on its extraction because of low oil prices, the company’s focus is on the gas potential in the Thrace region. McFarland said that Statoil and Valeura made a deal on May 16 to partner for gas exploration and production in Turkey.

“We have been seeking a joint venture partner to work with us on very deep and expensive exploration in the Thrace Basin so we are very pleased that Statoil has agreed to work with us. Statoil is very credible technically. It takes a long time developing unconventional resources,” he explained.

According to the deal with Statoil, the licenses for exploration will cover an area of approx. 540 square kilometers in proximity to existing infrastructure in a region where gas has been produced since the 1920s. The agreement is pending governmental approval, which is expected by the end of September 2016.

“We could hear more partnerships with other companies. Having Statoil as a partner is a big positive checkmark for natural gas potential for the basin. So it could attract new investors in the country,” McFarland said. Turkey imports more than 90 percent of natural gas, but McFarland stressed that Turkey can significantly increase its low domestic gas production to reduce its imports.

“It’s probably unrealistic to think Turkey will ever become 100 percent self-sufficient in natural gas in a short time but I think in some of these unconventional gas places resources can make a significant contribution to reducing imports and reducing Turkey’s current account deficit much of which is due to high levels of oil and gas imports,” McFarland said and added, “Absolutely we will be a part of the process to increase domestic supplies of gas.”

Valeura Energy is a Canada-based public company engaged in the exploration, development and production of petroleum and natural gas in Turkey. The company’s shares are traded on the Toronto Stock Exchange in Canada under the trading symbol VLE.

## Energy Ministry introduces Turkey’s giant energy investment agenda

Daily Sabah, 27.05.2016



The Energy investment agenda which can take Turkey to its 2023 goal of \$2 billion of economic growth has been set. The country’s energy sector will go through a change through projects from Energy and Natural Resources Minister Berat Albayrak.

While the aim is to reduce Turkey’s external energy dependency along with seven basic energy investments, investors will be encouraged to refine and produce domestic and recyclable resources. There will also be a focus on alternative energy resources such as wind power, solar energy, hydroelectricity and nuclear power.

The projects in the 65th Government Program aim for Turkey to reach a competitive energy system that can strengthen its strategic position in the international energy trade. The main topics of the projects include concrete steps that will facilitate the construction of nuclear power plants, and the maximization of domestic and recyclable energy resources, and they will also be used in the production of nuclear power.

Accordingly, concrete steps will be taken in nuclear power. In addition to the agreements that were signed regarding the construction of two nuclear power plants - the 4,800 megawatt plant in Akkuyu and the 4,480 MW plant in Sinop, the construction of an additional third power plant will also kick off during this period. Natural gas transmission to the housing sector will be complete in all cities as well. Natural gas storage capacity will be increased, and the Tuz Gölü underground storage facility project will be completed.

The construction of the Trans-Anatolian Natural Gas Pipeline (TANAP) project, which is being conducted with Azerbaijan, will be completed in this period as well. The natural gas will reach Italy through Greece and Albania via the Trans Adriatic Pipeline (TAP), and Turkey and Europe will import natural gas through the Iraq-Turkey Natural Gas Pipeline.

The capacity of the electricity trade with neighboring countries will increase. The infrastructure for the electricity transmission network will be strengthened and turned into a modern network. The privatization of electricity generating assets, which was initiated in 2010, will continue as well.

The reserves with lower capacities will be evaluated through large lignite basins like the Af in-Elbistan reserves. Various projects will be developed to enable the General Directorate of Mineral Research and Exploration to conduct mining activities abroad, and exploration activities regarding the determination of the potential of domestic resources like coal and geothermal will be maximized.

The mining industry's compliance with environmental regulations will be improved, and the creation of global-scale and competitive mining companies will be supported. Raw materials including iron ore, marble and boron will be prioritized in terms of mining research and development. There will also be a new system to be established for the exportation of the critical raw materials, mines and minerals.

Under the framework of the reforms, domestic energy resources will be replaced with foreign ones. Thereby, domestic resources will be utilized at most efficient way possible, reducing external dependency. The products that efficiently consume energy will be increased at the expense of products utilizing the resources inefficiently. Thus, while protecting the environment by cutting carbon emissions and increasing energy efficiency in public buildings and facilities especially, the competitive strength of Turkey will be enhanced.

## BP on track for first sd-2 gas 2018

Natural Gas Europe, 24.05.2016



UK operator BP says the Caspian Sea Shah Deniz project continues to provide reliable deliveries of gas to markets and that the consortium is making progress with the full field development known as Shah Deniz stage 2. In all, the consortium spent about \$928mn on Shah Deniz in the first quarter, most of which was associated with stage 2. Operating expenditure for Shah Deniz was around \$116mn, BP said.

During this period, the field produced about 2.7bn m<sup>3</sup> of gas and about 5mn barrels of condensate. Gas production rose by about 3.8% year on year to 2.6bn m<sup>3</sup>.



Earlier BP expanded Shah Deniz production capacity, which is now 29.5mn m<sup>3</sup>/day or around 10.8bn m<sup>3</sup>/yr. Stage 2 is progressing successfully, BP said, with over 70% of all engineering, procurement and construction works completed. “We are on target for first gas from Shah Deniz 2 in 2018,” the operator said.

Two semi-submersible rigs have already drilled nine production wells that are ready to produce first gas from stage 2 and to manage the subsequent output ramp-up. Drilling operations will continue in order to deliver all wells required to reach the planned plateau level of gas production at 16bn m<sup>3</sup>/yr.

Construction continues at all offshore and onshore sites and fabrication yards on Caspian coast including the Sangachal gas terminal and shipyards. In the first quarter of 2016, the commissioning of the two platform topsides started at the ATA yard near Baku, and nearly all of the 50 living quarter modules are in place.

The subsea construction vessel Khankendi has been launched out of the dry dock at the Baku Shipyard. Once completed, this new vessel will be deployed to the Shah Deniz 2 area to build the subsea structures. The installation of subsea pipelines kicked off in Shah Deniz 2 area this year, the pipe-lay barge Israfil Huseynov has already installed about 40 km of the 32-in subsea export pipeline.

BP continues to deliver associated gas from its Azeri Chirag Guneshli development to Azerbaijan. In the first quarter the operator delivered an average of 7.6mn m<sup>3</sup>/day or 692mn m<sup>3</sup> in total to Socar. The rest was re-injected for reservoir pressure maintenance. It is almost 45% less than in the same period last year, when daily associated gas delivery to Socar was around 13.6mn m<sup>3</sup>/day. BP and Socar want to keep oil production steady.

BP also said that it is planning a first probe on its promising exploration project in Caspian Shafag-Asiman. The final interpretation of the 3D seismic dataset was completed during the first quarter of 2016, the company said. A semi-submersible is needed to spud the first exploration well. BP is progressing with expansion of South Caucasus gas pipeline (SCPX) that will export stage 2 gas from Sangachal terminal to Georgian-Turkish border.

The expansion involves the laying of new pipeline across Azerbaijan and two new compressor stations in Georgia. This will triple the gas volumes exported through the pipeline to over 20bn m<sup>3</sup>/yr. At the border between Georgia and Turkey, the pipeline will join up with the Trans Anatolian pipeline to provide gas into Turkey and further to Europe.

In the first quarter of 2016, SCP consumed \$6mn in operating expenditure and around \$236mn in capital expenditure, BP said. Shah Deniz’ other stakeholders are Azerbaijan’s AzSD and SGC Upstream, Malaysia’s Petronas, Russia’s Lukoil, Iran’s NICO and Turkey’s TPAO.

# Subsidizing lignite plants would create risks for the Turkish economy

Hurriyet Daily News, 24.05.2016



The current economic climate creates a dilemma for Turkey's energy planners. The combination of low fossil fuel prices, increased generation from renewables, excess supply and the liberalization of the energy markets has driven down electricity prices, a benefit for its citizens and businesses.

But the Turkish government would also like to decrease the country's reliance on imported natural gas, and the major alternative being considered is to build new lignite coal plants. The low-price environment means that revenues will not cover the costs of building and operating expensive large power plants.

If subsidies are used as proposed, the cost of electricity would rise for Turkish residents and businesses. The Turkish Parliament has yet to vote on a bill that would amend the country's electricity law.

Amendments include a new annual tender pricing system for the electricity generated by lignite-fueled power plants, as well as postponing some of environmental regulations. The details are yet to be announced, but it is clear that the existing and future lignite plants would be able to sell their electricity at prices higher than market prices.

Turkey's strategic objective - to diversify its energy sources - is understandable, and controlling lignite reserves within the boundaries of the country is an important benefit. Most countries that rely on coal have similarly sought to rely on their own internal fuel supplies.

They nevertheless have learned a lesson that coal comes with a cumulative set of risks that have caused governments to cut back on coal build out plans. The proposed bill, if approved, will have economic, financial, environmental and social consequences affecting Turkey's macroeconomic path and development quality over the next few decades:

A rapid lignite-fueled power plant build out through subsidies will put upward pressure on the currently low electricity prices: According to IEEFA's estimations, with minimum price bid on the annual tenders at  $\text{¢US}8/\text{KWh}$  and market prices at  $\text{¢US}4.5/\text{KWh}$ , initial annual cost of the subsidy scheme would be  $\text{\$}1.1$  billion.

This cost, if passed through to consumers, would raise the market price of electricity by 19 percent. If the electricity production in lignite-fueled power plants increases as targeted by the government, the annual cost of the subsidies could increase to  $\text{\$}2$  billion and raise electricity market prices by 29 percent. The subsidy scheme would undercut the recent efforts to liberalize the energy markets: Turkey has been liberalizing its energy markets since the 2000s.



An electricity grid working on market principles chooses the least cost option first. Adding the new lignite plants would distort this fundamental principle of competitive, market-based pricing. Because of the new financing schemes, the new plants would have to be run as much as possible (even if less expensive options are available for dispatch) in order to pay unavoidable debt costs and avoid default.

The rapid addition of new lignite-fired power plants would lock in the costs of these plants at a time of slow or declining growth in the demand for power. With lower future growth rates both in GDP and power intensity, the large expansion in new lignite plants would create excess generating capacity whose costs will have to be paid by consumers.

By trying to improve its energy security through a dramatically increased dependence on lignite and coal, Turkey is choosing a very different energy transformation path than other important emerging economies, which diversify their energy capacity by adding large amounts of renewable resources. Gains from deflationary prices in renewables and efficiency gains on the innovation curve will be incremental in Turkey's case, while the burden of subsidizing lignite will be carried for the next decade.

The potential for defaults and/or stranded assets from an increase in new lignite power plants would undermine the banking sector: The deteriorating financial performance of coal companies has already burdened the banking sector. Further exposure to the greater risks inherent in lignite power plants would cause the banking sector to carry a long term imbalance.

Turkey needs energy security, but adding lignite plants is not the only way to achieve this. Diversifying the energy supply by subsidizing lignite, even if it is domestically produced, is an economically non-viable and financially insecure alternative in a low price environment. Renewable energy, with its technological advantages, deflationary cost structure, and environmental benefits, can provide a better alternative for Turkey on its path to a higher valued-added economy.

# Gas fueling new hope in Eastern Mediterranean

TRT World, 24.05.2016



Israeli authorities approved a deal aimed at speeding up the development of a mega offshore gas reservoir which could pave the way for supplying Europe with natural gas from the Eastern Mediterranean.

Progress in developing the Leviathan gas field stalled in late 2014 when Israel's Antitrust Authority declared Texas-based firm Noble Energy and Delek Group, which together own 85 percent of the field and were set to invest a total of \$12.5 billion, part of an "illegal cartel." Discovered in 2010, the Leviathan reservoir is one of the largest offshore gas fields found in recent times, with an estimated capacity of 535 bcm.

Its discovery also inspired searches in neighbouring countries, which see its existence as indicating that there may be similar reserves in their own Exclusive Economic Zones, or EEZs. In August 2015 the Israeli government used an obscure clause to override the Antitrust Authority, and announced that the two firms will be allowed to maintain control of the Leviathan reservoir in exchange for giving up their assets in the nearby Tamar reservoir.

However, in March the deal hit another snag when the Israeli Supreme Court ruled that a clause preventing it from being altered for a decade was unacceptable, dealing a major blow to Prime Minister Benjamin Netanyahu, who called the verdict "mystifying."

The court's decision rattled energy firms which had been lining up to bid for licences to explore and exploit untapped gas reserves locked in the Eastern Mediterranean's Levant basin. But the new agreement which was announced by Energy Minister Yuval Steinitz last week promises to provide regulatory stability in the gas sector for 10 years while keeping taxation, ownership and exports flexible, thus offering more stability to investors.

The Israeli government hopes the field will be online by 2019, after which a range of possibilities including export to Europe could materialise. Gas-hungry Europe seems to be the most obvious destination for the natural gas located under the Eastern Mediterranean seabed. Europe has made no secret of its desire to diversify gas imports away from Russia as relations between Moscow and the West continue to sour due to conflicting policies on Ukraine, Syria and a range of other issues.

The Middle East and the wider region – in which many countries already have large gas reserves – has little need for Israeli gas. Therefore, exporting to Europe through pipelines appears to be the most feasible option. Israel could even combine its own reserves with those found in the EEZs of neighbouring Cyprus and Egypt, possibly linking the Leviathan field to the nearby Aphrodite and Zohr fields. This in itself presents a number of problems, as the likeliest route for the pipelines to Europe would be through Turkey.





As instability in Ukraine threatens Europe's supply of gas from Russia – and new potential routes for pipelines from reserves in Turkmenistan, Azerbaijan and Iran open up – Turkey's role as an energy hub has become increasingly relevant.

Linking the Eastern Mediterranean gas fields with Ceyhan, a transportation hub in southern Turkey, could allow pipelines to transport gas across Anatolia to Greece. However, there are a number of unresolved disputes in the region which could obstruct such developments.

Turkey has not recognised the Republic of Cyprus since a coup in July 1974 orchestrated by the military junta ruling Greece at the time overthrew the Cypriot government and attempted to annex the island to Greece. Therefore, neither Turkey nor the Turkish Republic of Northern Cyprus (TRNC) – which declared independence from the Republic of Cyprus in November 1983 and is only recognised by Turkey – accept the Greek Cypriot administration's claim to its own EEZ.

Turkey is also yet to resolve its EEZ boundaries with Greece, and does not recognise a delineation agreement between Greece and the Greek Cypriot administration which infringes upon the EEZ that Turkey claims for itself.

Greek Cypriot leader Nicos Anastasiades (C), Israeli Prime Minister Benjamin Netanyahu (R) and Greek Prime Minister Alexis Tsipras shake hands outside the presidential palace in Nicosia, Cyprus, in this January 28, 2016, file picture. While the lure of the benefits that the newfound natural gas reserves may bring has breathed new life talks aimed at resolving the dispute between Turkish Cypriots and Greek Cypriots, plummeting gas prices may dampen the will of the two sides to find solutions.

Political wrangling in the wider region could also prove troublesome. Relations between Turkey and Israel have been strained since Israeli commandos killed nine Turkish nationals in international waters in May 2010 as they attempted to break the Israeli blockade on Gaza as part of an international aid flotilla. The military coup in Egypt in July 2013 likewise led Cairo and Ankara to downgrade diplomatic relations. Another option being explored is the possibility of an underwater pipeline that would bypass Turkey and link the Eastern Mediterranean gas reserves directly to Greece through the island of Crete.

Plans to form a team of experts that will assess the viability of such a project were announced following a trilateral meeting between Greek Prime Minister Alexis Tsipras, Israeli Prime Minister Benjamin Netanyahu and Greek Cypriot leader Nicos Anastasiades in January.

But a number of experts have already dismissed the project as unviable, pointing out commercial and political issues, as well as the extreme 2,000 metre depths and high seismic activity the pipeline would have to withstand. There is also concern in Europe over Greece's warm relations with Russia, especially amid an atmosphere of mistrust between Athens and Brussels stemming from disagreements over financial bailouts.

Greece showed its willingness to do business with Russia last year after agreeing to allow Moscow to build an extension of a gas pipeline the country was planning to build through Turkey. The pipeline, dubbed the "Turkish Stream," would have transported gas under the Black Sea, bypassing Ukraine, and then on into Europe through Greece.



The project was later suspended following a diplomatic crisis after a Turkish F-16 downed a Russian fighter jet on Turkey's border with Syria border in November 2015. In the unlikely event that a pipeline is built linking Greece with the Eastern Mediterranean, Europe will be determined to keep it from falling under Russian influence. Egypt – which was traditionally an exporter of natural gas – has been experiencing an energy crisis since 2011 due to increasing consumption and declining production, and has thus turned into a net importer.

The decline of Egypt as an exporter of gas coincides with the new discoveries off Israel and Cyprus. There has been talk of reversing the flow in pipelines running across the Sinai peninsula that previously supplied Israel with gas from Egypt. But public opinion in Egypt and security concerns in the Sinai leave such a deal vulnerable to criticism and attack.

In a bid to revive the country's gas production, Egyptian President Abdel Fattah el Sisi secured \$36.2 billion in investment deals after a three-day conference last year. During the conference, Italian energy giant Eni signed an agreement worth \$5 billion over 4-5 years for concessions in the Mediterranean, the Western Desert, the Nile Delta and the Sinai. The deals also include a record investment by British Petroleum and its Russian partner DEA of \$12 billion in Egyptian fields that will produce 3 billion barrels of oil.

Last year, Eni also discovered the mega 30 trillion cubic feet-capacity Zohr gas reservoir in Egypt's EEZ, meaning Egypt is likely to meet its own gas demand once the field comes online. It's possible that Eastern Mediterranean gas could be exported as liquefied natural gas (LNG). At present, there are two liquefaction plants in Egypt which could be used to convert the gas to LNG.

Early 2015, the Greek Cypriot administration and Egypt signed a Memorandum of Understanding to outline the technical details of an undersea pipeline that would supply a BG Group-operated network in the Egyptian ports of Idku and Damietta with gas imports by early 2018 from the Cypriot Aphrodite gas field.

A new LNG plant has also been considered in Cyprus, but these plans have been put on hold as the amount of gas found so far does not economically justify its construction. Likewise, a Floating LNG plant, despite dodging some of the political obstacles that affect onshore plants, would cost billions of dollars to maintain and would be seen as a luxury expense during a time when energy firms are cutting costs.

The next question would be where to export the LNG. There is a market for LNG in Spain and France, but Eastern Mediterranean gas would struggle to compete against long-term LNG supplier Algeria. As for the Far-East, where Qatari exports have the advantage, transportation costs would make LNG exports unprofitable.

One of the few success stories for Eastern Mediterranean gas so far has been Jordan. With its close proximity to the Mediterranean making pipelines feasible, Jordan seems to be an ideal destination for the reserves.

Jordan recently agreed to begin importing natural gas from Israeli reserves in the Eastern Mediterranean over the course of 10 years. A pipeline running under the Dead Sea is set to become operational as early as 2017.

The gas will be pumped from the Tamar field, which is close to the Leviathan field but unlike the latter does not face as many problems preventing it from coming online. The Tamar Israeli gas-drill platform in the Mediterranean Sea off Tel Aviv – Israel has been trying to extract offshore gas since the discovery of the Tamar and Leviathan fields in 2009 and 2010. Gas from the Leviathan field is also expected to start being delivered in 2019 for 15 years.

If the political deadlock over Gaza is resolved and the blockade of the Palestinian enclave is lifted, it is possible that the Marine gas field, which was discovered in 1999, could also finally start exporting to Jordan.

Jordan relies on imports for 97 percent of its gas demand. The vast majority of Jordan's gas imports – as much as 80 percent – used to come from Egypt via the Arab Gas Pipeline, but due to Egypt's gas crisis and a number of attacks on the pipeline in the Sinai this supply was repeatedly disrupted between 2011 and 2014.

By importing from the Eastern Mediterranean, Jordan is likely to save \$1.5 billion annually. But with a population of under 7 million, Jordan's gas demand is minimal and does no justice to the quantities of gas found in the region.

## The end of pipeline politics?

Natural Gas Europe, 25.05.2016



**Pipelines are the most favoured, common way of gas transportation across the world. Physical limitations to alternative ways of trading, geographical proximity, and political and economic reasons account for this.**

**In particular, natural gas can most efficiently be transported if natural gas is compressed and injected into pipes, rather than converted the gas into other states, especially over their land. Second, pipeline infrastructure is an easy way to connect broadly neighbouring states with complementary economic interests and roles, such as producer and consumer.**

Third, pipeline trade creates grounds for, facilitates or reinforces patterns of cooperation and alliances, and interdependence, which if asymmetric works as a power and bargaining tool or a means to establish one's supremacy over another. Even when alternative ways of transport, namely LNG, became available half a century ago, selling and buying gas via pipelines remained the most affordable option. The market rationale thus also pinpointed to the necessity for pipeline gas.

These notwithstanding, the politics and economics of gas, broader geopolitics and other challenges mandate a significant switch away from pipelines – and their politics – towards open, and global, rather than quasi-monopolistic regional, markets and trade, as well as towards means of gas trade.



The frustration of buyers, transit states and purchasers with pipeline-based transactions has been amply cited. It is enough to look at EU-Russia, Russia-Ukraine and Russia-Turkey gas trade, where all sides have at different times found themselves hostage of the rigid politics that pipelines create. Of particular importance here is also the will of the weaker side to break free from dependence on the stronger and escape the political side-effects of energy agreements.

The inflexible nature of pipeline agreements, moreover, is one of the factors that make state and corporate actors reluctant to assign themselves to the task. The delays in the Sino-Russian gas deal of 2014 – now scheduled for post-2020 – to an extent come down to neither side wanting wholeheartedly to submit to fixed terms of trade for decades.

Pipeline politics peaked in the Cold-War period, a time renowned for its enviably stable order. Patterns of alliance or detente were established and pipeline agreements followed them both within the Soviet camp, as well as between Western Europe and Moscow after Willy Brandt's Ostpolitik became the order of the day.

Today's world, however, is markedly different, with traditional orders collapsing and immense geopolitical realignments taking shape, and patterns of enmity and amity being neither fixed nor exclusive, but fluctuating significantly depending on circumstances, issue areas and regional developments. The ex-Soviet space and the Middle East provide the best illustrations.

One should also note, nevertheless, that the same holds true, for example, for the US-China relationship that varies depending on the topic, such as the global financial crisis, Taiwan, the plight of the South China Sea, or the handling of international crises and so on.

Moreover, while China and India act in unity on climate negotiations, they retain mutual geopolitical mistrust and hold diametrically opposite approaches vis-à-vis Pakistan. The Greek-Turkish array of differences, to give another example, remains unresolved, at the same time as the two countries cooperate on the handling of the refugee crisis.

The same holds true for the Beijing-Moscow axis: it finds it easy to reach a common understanding on the normative background and desirable structure of the world order, but less so on energy deals and central Asian politics. This non-polar world is no easy fix for steady partnerships, including pipeline agreements that bind the contracting sides in rigid cooperative schemes for decades.

Neo-liberal economics also speak against pipeline agreements. As the EU example has triumphantly shown in the last decade, it is better to have a wide array of trade partners, and let market fundamentals define trade patterns and prices. The shift from oil-based long-term take-or-pay contracts to prices set according to gas supply and demand in competitive spot markets has significantly enhanced the EU's gas security.

It is indicative that liberalization measures have not prompted any moves from external suppliers to reduce trade with the EU and/ or diversify markets, although they definitely prefer the previous status quo, whereby certainty of demand was guaranteed before upstream investments were undertaken. The evolution of technology has been key to this development since it has brought LNG costs down remarkably.



Compressed natural gas (CNG) is a further way to enable gas trade over relatively short distances. The critical issue here is that energy actors can further bring these costs down through increased research and development.

In other words, it cuts both ways. Not only have more options opened up for energy incumbents, be they states, corporations, brokers and so on; but they can impact on this process by prioritizing, funding and investing in technology. This virtuous cycle will reinforce globalizing trends in an expanding LNG market rendering pipelines redundant.

The last critical factor that speaks against pipeline politics and trade is climate change. The pace of transition to a low-carbon economy is pretty indeterminate in the post-Paris summit era. While gas has been heralded as the ideal transition fuel, something also enshrined in the EU's 'gas first' policy, which emphasizes investments to secure ample gas quantities and hence prioritizes a high share of gas in the EU energy mix. In the mid-term, this will prove to be so only in the modest transition scenario. Renewables will dominate the global energy mix only after half century.

In the more optimistic and scenario, though, plummeting costs, and smart technologies and grids will make renewables the key fuel much earlier. This raises the spectre of an array of stranded assets if new pipeline investments are carried out now (or, worse, a lock-in in gas consumption that will go against climate goals).

Shorter-term investments in LNG and CNG, to the contrary, although also creating sunk costs, can be much more flexible both in terms of duration of use and reversion to other uses. All in all, one can long for the past days of stability, which formed fertile ground for the creation of grand pipeline schemes. The death of South and Turkish Stream may have rung the death knolls for this kind of investments. The plight of Nord Stream II and the Power of Siberia pipeline will be the next crucial stress tests.

One can expect small pipelines, such as the Greece-Bulgaria Interconnector and other small, in terms both of length and capacity, pipelines to come on stream the following years in central, western and eastern Europe. But these are practically domestic pipelines, carried out within the framework of the common market and its increased interconnectivity; and there is not too much (international) politics surrounding them. In a world where access to markets, rather than to sources of energy is the key, pipelines should be thoroughly revisited.

## Israel-Jordan gas agreement moves closer

Globes, 25.05.2016



“Senior figures in the Israeli natural gas sector and Noble Energy senior VP Eastern Mediterranean Region Keith Elliot today predicted that an agreement for the export of gas to Jordan would be signed soon.

At a conference this week in New York, Elliot asserted, “That’s one example of a situation where Israel has the opportunity to take advantage of the gas not only for its own internal benefits but for a broader geopolitical benefit,” adding that his company was in the process of “consummating a contract” to provide Jordan with natural gas from the Leviathan gas reservoir.

At the same time, the Jordanian parliament yesterday approved investments by Israeli companies in Jordanian infrastructure projects, following several months in which such investments were forbidden.

In September 2014, the Leviathan partners signed a letter of intent to supply 45 BCM of gas over 15 years to Jordanian National Electric Power Company (NEPCO). The contract’s amount was estimated at \$15 billion. The discussions about the gas plan, however, which have been taking place for nearly 18 months, also led to an impasse in the negotiations between the two countries.

The deal is economically worthwhile for both Israel and Jordan. The distance between the Israel and Jordanian gas transportation networks is only a few dozen kilometers, and NEPCO is considered a reliable customer with a high payment ethic, in contrast to Egypt, for example, which still owes billions of dollars to international energy companies. Jordan does not have its own energy resources, and has remained dependent on imports to this day, despite having been burned by its suppliers quite a few times.

Saudi Arabia halted the supply of its oil to Jordan, after the latter supported the Iraqi invasion of Kuwait. Iraqi oil replaced Saudi Arabia oil until the fall of Saddam Hussein’s regime in 2003. Egyptian gas began flowing in that year, supplying a significant proportion of Jordan’s energy needs, but was cut off completely in 2013, after repeated explosions in the Arab gas pipeline.

Since then, Jordanian industry has been operating on expensive and highly polluting fuel, such as diesel oil. Up until a year ago, this fuel cost six times the price that Jordan paid for Egyptian gas, and took up 30-40% of the state budget in the past two years. At the same time, Jordan has been importing liquefied natural gas (LNG) in the past two years, among other things from Qatar, and from Royal Shell, Vitol, and others. Up until now, there have been two main obstacles to signing a final gas import agreement: regulation in Israel and poor relations between Israel and the Hashemite kingdom. Now that the discussions about the gas plan are nearing an end (the cabinet this week approved the gas plan with the less restrictive stability clause), however, it appears that the two countries are ready to move ahead with the agreement.

Elliot said this week that the natural gas that has been flowing from the Tamar reservoir for the past three years had reduced air pollution in Israel and saved Israel billions of shekels. He added that Noble Energy was determined to continue its contribution with a flow of gas from Leviathan by the end of 2019.

The Jordanian press and the Al Jazeera news agency both reported that the Jordanian parliament had approved new Israeli investments in the country for the first time in several months. A senior Israeli gas industry source said today, "Jordan is waving the white flag, and signaling that it wants to import Israeli gas, and the Israeli government is also interested."

## Wait for Iran's gas surprise after oil

Shana, 25.05.2016



After increasing both Iran's oil production and exports by about one million barrels per day since elimination of sanctions in mid-January, it is the time to wait for Iran's gas surprise.

Iran's actual sweet gas production level increased to above 178bn m3 last year, while the raw gas production capacity reached 260bn m3/yr, thanking to commencing new phases of giant gas field with Qatar, South Pars. Iran has boosted the raw gas output from this field to above 132bn m3/yr last fiscal year, which ended on March 21, but 5 new phases are expected to become operational during current year.

The final production capacity of these 5 phases is about 55bn m3/yr and some of them are currently producing gas with half capacity. The Iranian side of South Pars has been divided to 24 phases, of which stages 1-10, 12, 15 and 16 are fully operational now. Once, the all 24 phases of this field become operational by 2019, the country's raw gas production capacity would increase from the current 260bn m3/yr to around 390bn m3/yr.

However, South Pars is not the all of Iranian gas story. The country has introduced 49 oil and gas fields for foreigners based on a new designed contract model, so called Iran Petroleum Contract, or IPC. Among the introduced fields, there are 21 gas fields, of which only two are brown fields with the current 28mn m3/d output.

Once, the all of these fields become operational, about 380mn m3/d of gas would be added to the production level, while the produced associated gas from the oil fields would add further 200mn m3/d to the output level as well.

It is not clear how much the foreign companies invest in these fields based on IPC, but Iran hopes to attract \$30b in coming years. In total, Iran has planned to invest \$231 billion investment (including foreign funds) in upstream oil and gas projects by the March 2025.

For now, the natural gas shares above 68 percent in Iran's total primary energy consumption, but gasification of further 2 million households, tripling gas re-injection to oilfields to around 100bn m<sup>3</sup>/yr as well as boosting gas deliveries to power plants by more than 20bn m<sup>3</sup>/yr of gas to power plants to curb liquid fuels burning in this sector is in agenda.

In total, Iran would have a significant amount of surplus gas to be exported, not only thanking to the production increase, but also due to fuel conservation projects. Iran's Fuel Conservation Organization plans to spend over \$16bn on improving energy efficiency projects to save \$170bn – over ten times more – in fuel.

Beside upstream sector, Iran has \$55.8bn worth gas transit projects in next 10 years, including several cross-country pipelines, enabling the country to export gas in several directions. For now Iran export about 9.7 bn m<sup>3</sup>/yr gas to Turkey, but there are around 100mn m<sup>3</sup>/d of gas export deals with Iraq, Pakistan and Oman. The country also has a 10.5mn mt/yr-LNG plant, developed by 50%, aimed to liquefied 14bn m<sup>3</sup>/yr of gas and export to foreign markets, including EU by 2019.

## India may lose prize Iranian gas field to Saudi Arabia

Oilprice, 24.05.2016



India's state-owned oil and gas giant ONGC risks losing a massive Persian Gulf gas field in a contracting hurdle, as it races against Saudi Arabia to extract gas reserves from two fields spanning the Iran-Saudi Arabia border.

India's flagship explorer does not have the necessary contract to exploit the over 12 trillion cubic feet of recoverable reserves at the Farzad-B field in the Persian Gulf. ONGC discovered the field in 2008, but hasn't managed to strike a deal with Iran since, though Prime Minister Narendra Modi's planned visit to Iran has since raised expectations of positive forward movement.

A portion of Farzad-B extends into territorial waters controlled by Iran's regional arch-rival, Saudi Arabia. Saudi Arabia has already drilled wells and begun producing at the field within its territory, which it has named the Hasbah field.

Both the Farzad-B and Hasbah fields are connected, with the area falling in Iranian territory holding the larger share of 12.5 Tcf (trillion cubic feet) of recoverable reserves, while the Saudi territory has approximately 3 Tcf. The catch is this: Since the two fields are connected, whoever moves first will extract more benefits. Experts believe that the gas reserves in Farzad-B field in the Persian Gulf may be drawn out by neighbouring Saudi Arabia while ONGC Videsh Ltd. (OVL)--the overseas arm of ONGC—gets caught up in red tape. Saudi Arabia has already drilled wells on the area and aims to exploit its advantage.





Prime Minister Modi's two-day Iran visit early this week (May 23-24) might offer some ray of hope. If the Iranian government hands over developmental rights for the Farzad B field to ONGC Videsh Ltd, then it may be able to extract the gas before the Saudis. ONGC has already invested about US\$100 million in the gas project.

A definitive contract for the development of the field is likely to be signed during Modi's visit. OVL had earlier submitted a US\$4.3 billion master development plan, but Iran has yet to agree to it. Moreover, Iran is yet to agree to the price at which OVL can take the gas produced from the field.

As part of the earlier program, Iran had agreed to pay a fixed price to OVL for its efforts discovering and producing gas, but the ownership rights were to stay with Iran. As per the new modified contract however, part ownership of the gas produced will be with OVL and, as such, Iran is now quoting a higher price.

Once the issues related to investments and gas price are settled, which will likely be by late August 2016, an agreement confirming development rights for OVL will be signed. Only after that will negotiations on various other issues including marketing rights be finalised. The entire process is set to take over a year.

The Iranian Parliament is yet to approve the new Iran Petroleum Contract, under which the Farzad-B field is to be given to the OVL-led consortium. Fear of being sanctioned by the U.S. and Europe has so far kept India from claiming rights to invest nearly US\$7 billion in the gas field in Iran. But, following the lifting of sanctions on Iran, India is making a renewed pitch to develop the 12.8 trillion cubic feet of gas reserves that OVL found way back in 2008.

Following the meeting between Iran's and India's petroleum ministers in April, the two countries agreed to discuss the financial terms and development plan of Farzad B in a time-bound manner so as to conclude the discussions by October 2016. It is unclear which way this will go, but with Saudi Arabia for now appears to have the edge.

# Battle inside OPEC eases as Saudi oil strategy finally pays off

Bloomberg, 26.05.2016



Saudi Arabia has been fighting with fellow OPEC members since the oil rout started two years ago. For the first time next week, it can argue convincingly that its strategy of squeezing rival producers is succeeding.

By stifling high-cost suppliers, the Saudi approach has now almost eradicated the global oversupply, spurring a price rally of 80 percent to above \$50 since January. All but one of 27 analysts surveyed by Bloomberg said the Organization of Petroleum Exporting Countries will stick with the strategy rather than set output limits when ministers gather in Vienna on June 2.

“It might not look a victory compared with when oil was \$100 a barrel, but the Saudi strategy is working as you’ve got significant production declines showing up in a lot of places, and prices are grinding higher,” said Seth Kleinman, head of energy research at Citigroup Inc. “Which makes the odds of them abandoning the plan even more remote.”

Lower prices have taken their toll on production from the U.S. to Nigeria. Analysts from the International Energy Agency to Goldman Sachs Group Inc. say the crude glut is dissipating as supply and demand move back into balance. That shift may mean a less contentious meeting than the last gathering in December, which ended with public criticism of Saudi Arabia’s position from fellow members Venezuela and Iran.

Oil production outside OPEC is headed this year for its biggest drop since 1992 as the U.S. shale-oil boom that fostered the world surplus sputters out, the Paris-based IEA forecasts. U.S. output has fallen for 11 weeks to its lowest since September 2014, and will average 8.5 percent lower this year than 2015, the Energy Information Administration estimates. Kuwait’s acting oil minister Anas Al-Saleh, said that OPEC’s policy “has been working well.”

Any action that raises prices would only rescue U.S. drillers and jeopardize the return to equilibrium, said Mike Wittner, head of oil market research at Societe Generale SA in New York. “The Saudis might be concerned that if prices go a little higher and sustain it, that could nip the re-balancing in the bud just when it’s getting going,” said Wittner. “I don’t know they have a whole lot of incentive to particularly do anything.”

While the economies of OPEC members such as Venezuela and Nigeria remain under strain, they are probably resigned to the course set by Riyadh, said Jason Bordoff, director of the Center on Global Energy Policy at Columbia University in New York. “Countries like Venezuela have been pushing OPEC for over a year now to do something to get the prices up,” said Bordoff.



“They probably recognize that that’s a futile effort at this point. The Saudi strategy of allowing low prices to do the work of low prices is working.” The chances of reaching any supply agreement look especially dim after OPEC failed to complete an accord with Russia and other non-members on freezing supply levels in Doha last month, according to Daniel Yergin, vice chairman of consultant IHS Inc. The deal collapsed at the last minute when Saudi Arabia’s Deputy Crown Prince Mohammed bin Salman insisted that political adversary Iran, which had ruled out participating, would need to join.

“The clash between Iran and Saudi Arabia makes it very difficult for OPEC to do anything,” Yergin said in a Bloomberg television interview. “It’s pretty hard to have any deal at this point.” Iran -- a key advocate of output restraint in previous years -- is unlikely to push for a new group limit as it remains focused on restoring exports previously constrained by sanctions, Societe Generale’s Wittner said.

The only analyst surveyed who predicted an agreement, Phil Flynn at Price Futures Group Inc. in Chicago, expects the group to follow up on the aborted Doha initiative by deciding to “freeze” production at current levels.

OPEC’s previous ministerial meeting in December ended without any agreement on a group output ceiling, abandoning the target of 30 million barrels a day that the organization had held -- and mostly ignored -- since late 2011.

While prices collapsed after that gathering amid OPEC’s inaction, just as they had when the approach was first revealed in November 2014, the response will probably be subdued this time as the market has accepted the laissez-faire policy is here to stay, said Harry Tchilinguirian, head of commodity markets strategy at BNP Paribas SA in London.

The Vienna meeting will be the first opportunity to assess the stance of new Saudi Energy Minister Khalid Al-Falih, appointed this month when Ali al-Naimi stepped down after two decades, according to Tchilinguirian. Al-Falih is close to Prince Mohammed, who’s plan to partly privatize the state oil company has sparked speculation it may further expand production capacity and market share, severing its ties to OPEC. That change in Saudi leadership means the meeting will still be “pivotal for the cartel and its future,” said Tchilinguirian.

## Saudi Arabia's oil strategy in a time of glut

Foreign Affairs, 24.05.2016



The world is already awash in oil, and yet there may soon be more Saudi crude flowing to market. This month, just after scuttling a “production freeze” among major oil exporters, the Saudis fired long-serving oil minister Ali Naimi, who was a rare, reassuring fixture in the unpredictable oil market.

Naimi had wanted to retire, but his support for the freeze contradicted the position of his superiors and probably hastened his departure. Along with naming a replacement minister—Khalid al-Falih, the former CEO of the state oil giant Saudi Aramco—the Saudis also announced a significant shift in oil market strategy.

The kingdom would not only maintain its brisk pace of oil production of 10.2 million barrels per day but increase it further. Amin Nasser, the current CEO of Aramco didn't stop there. He said that the theoretical ceiling on Saudi oil production capacity—12.5 million barrels per day—could be expanded in the future.

In some respects, signs of the Saudis' strategy shift were there all along: The country is locked in a battle for market share in the face of a U.S. shale boom, a re-emerging Iran, and a glut of non-OPEC crude. Longer term challenges, such as the threat of hitting a ceiling on global oil demand—perhaps in response to climate change—probably also shape thinking at Aramco headquarters in the eastern city of Dhahran. With 260 billion barrels of proven crude oil reserves still underground, the risk of stranded assets is a scary proposition in Saudi Arabia.

Saudi production decisions are subject to painstaking deliberation over the optimal pace for depleting the kingdom's reserves. Aramco calibrates output from individual fields so that recoverable oil is exhausted gradually, over a minimum of 30 years.

This has a constraining effect on the market. Since 2000, the kingdom's output has hovered at about 13 percent of global supply, a self-imposed limit that has forced oil prices up. This has allowed higher-cost “fringe” producers to meet remaining demand with costlier oil.

That calculus could change, however, if Saudi energy policymakers believe there will be threats to the long-term value of crude oil, especially in oil's viability as a transportation fuel. In such a case, the kingdom could recalibrate its depletion strategy.

One threatening scenario stems from efforts to respond to climate change. Some climate-focused scholarship has sought to quantify the amount of “burnable” fossil fuels as a portion of global reserves, given the goal of limiting the rise in temperatures to two degrees Celsius. One recent paper calculates that adhering to the two-degree limit means that the Middle East will see more of its reserves stranded underground—at 38 percent—than the global average of 33 percent. This is due to the large size of Middle Eastern resources relative to its hitherto modest rate of production.



By contrast, the United States may find itself with the smallest level of stranded reserves. Only six percent of U.S. conventional crude reserves were estimated as “unburnable,” probably because of the relatively small amount of remaining oil and comparatively high rates of production. From this perspective, Saudi prudence looks risky.

Based on such calculations, it is in producer countries’ interests to beat the trends by stepping up production and shortening the timeframe for converting underground reserves into above-ground assets. This would, if all else held constant, reduce global oil prices and increase demand. For Riyadh, this approach could potentially transfer the risk of stranded assets to higher-cost producers, including those in North America, whose investment plans might be derailed by expectations of low oil prices.

Higher production might also allow Saudi Arabia to reduce its risk from a related “peak demand” scenario. Naimi and other Saudi officials have voiced fears for at least a decade about “security of demand” whether from climate factors or Washington’s rhetoric around “energy independence.” U.S. diplomatic cables released by WikiLeaks revealed some of these concerns, as do Naimi’s public statements and those of an adviser, Mohammed al-Sabban, who predicted that global demand would peak by 2025.

By forcing prices down, Aramco might delay the onset of peak demand, prolonging oil’s dominance in transportation while nudging higher-cost producers out of the market. Low prices might also push emerging economies to increase their dependence on oil by making investments that lock in higher levels of long-term demand. That’s because cheap oil also encourages urban sprawl. When cities become less dense, they require more energy: commutes lengthen, homes are more spacious, and private car ownership grows.

Politically, Saudi Arabia may also view a more dominant role in global crude oil markets as beneficial to its geopolitical status. It could better hedge against Iran as its cross-Gulf rival emerges from decades of economic isolation. And more oil could even revive Riyadh’s flagging “oil for security” relationship with the United States. Conversely, a declining role in crude markets may diminish the kingdom’s strategic importance.

Another reason why Saudi Arabia may be increasing production is due to the dangerous rise in domestic oil demand. If this trend continues, it may force Saudi Arabia to forfeit its spare production capacity and divert oil from export into the domestic market within a decade or two. Saudi Arabia could avoid that outcome by either halting growth in domestic demand or by increasing supply.

The kingdom’s recent energy subsidy reforms are aimed at reducing demand. But in the event they don’t succeed, Aramco has prepared for major upstream investment. In 2015, Aramco forecasted on its website that it would make capital investments of about \$334 billion between 2015 and 2025, with most of it earmarked for oil and gas drilling.

In addition, the government’s recent subsidy reform policies are expected to increase domestic oil revenues, which could be reinvested in raising production capacity. In January, the Saudi government took the extraordinary step of raising prices on natural gas, water, electricity, gasoline, and diesel fuel, which probably represents its biggest reduction in citizen welfare benefits since the current system was established in the 1970s.



Although energy prices in the kingdom remain substantially below world market levels, the increase is expected to raise \$7 billion while reducing growth in domestic energy demand. Another source of capital could come from the splashiest initiative of all—the unprecedented sale of a portion of Saudi Aramco in an initial public offering next year.

In spite of the apparent benefits, raising Saudi production capacity is a risky endeavor. First, if a glut of oil causes prices to drop too low for too long, higher production may not be able to make up for the loss in revenue. Gains in market share might leave Saudi Arabia financially worse off. Second, higher oil production now means less oil in the future. London-based oil company BP estimates that at current rates of production, the kingdom's reserves of crude oil will last another 64 years. Higher output could shorten the time frame.

Third, and most worrying, a rise in Saudi output could trigger a period of global oversupply that would exacerbate climate damage. This could play out in a number of ways. On the one hand, it might unfold in a rational manner, deterring competitors from investing in higher-cost resources and pushing high-cost oil out of the market.

On the other, it could cause other producers to panic about stranded assets, triggering a glut of cheap oil that would tempt consumers away from conservation and green technologies. Another scenario could see things swing the other way. By raising production, Saudi Aramco could publicize the kingdom's fears that the world is preparing to move beyond oil and inadvertently encourage investment in alternate technology such as electric vehicles. Other scenarios are possible as well.

In the long term, the oil business is entering an age of increasing risk, since progress on climate change endangers the dominance of fossil fuels in the global energy market. Although no one has yet devised a viable replacement for oil-fueled transportation, governments are increasingly seeking alternate fuels and technologies, regardless of oil prices. This understanding will most likely prompt at least some holders of large reserves, like Saudi Arabia, to move their crude to market before the world moves on.

# Russian natural gas dominance under threat from Croatian LNG terminal

Oilprice, 23.05.2016



On April 26th, a tanker carrying U.S. liquid natural gas (LNG) arrived at the Port of Sines, Portugal, opening a new source of European energy import. This LNG market not only creates new demand for U.S. shale gas, but also allows the European Union to take the next step towards the realization of greater energy source diversification.

The concern with the Portuguese port of entry, particularly for Central and Eastern European states (CEE), which remain heavily dependent upon Russian energy imports, is the lack of sufficient transport routes from the Iberian Peninsula and across Western Europe.

New U.S. imports, therefore, may not significantly liberate many in this region from problematic energy dependence and the underlying market and national security implications. This obstacle may be overcome by an agreement outlined in a U.S.-EU Energy Council meeting in May, concerning the development of a floating LNG terminal on Croatia's Krk Island. Targeting completion in 2018, the new terminal will become the gas hub for CEE states.

This critical piece of energy infrastructure, when combined with the infrastructure of a CEE North-South Energy Corridor, would provide a secure source of gas to the Baltic and Balkan states, Moldova, Romania, Bulgaria, Austria, Greece, Turkey, and Ukraine. The new Krk Island terminal will not simply provide gasification capacity to U.S. LNG imports alone, but will open the CEE energy market to imports and supply diversification from other global LNG producers, such as Australia.

This emerging CEE energy region will not solely be market-driven. There is currently a global glut of gas supply, and gas import prices across Europe are a third of those realized just 3 years ago, as shown in the diagram below. Furthermore, existing CEE LNG transport infrastructure such as the Nord Stream pipeline are operating well below capacity, allowing for an easy and cheap increase in imports from Russia if necessary.

In the case of the U.S., LNG exports to central Europe have lost their initial market price advantage against continued imports from Russia. Gazprom plans to maintain gas export levels to Europe of approximately 160 billion cubic meters through 2018, ensuring that lower prices are maintained.

Despite the global glut of natural gas, Europe, and CEE states specifically, will remain a tempting market. The significant concern for alleviating CEE energy dependence on Russia was clearly visible in a March letter regarding the possible development of the Nord Stream 2 pipeline. Eight heads of government of CEE member states sent a letter to European Commission President Jean-Claude Juncker noting the potentially destabilising geopolitical consequences of the addition of this new gas line, further tying the region to Russia for its energy needs.

The pipeline's construction, specifically supported in Berlin, would double the import capacity of Nord Stream 1 which itself is only utilised at 50 percent of its maximum. Proponents contest that, should Russia impose energy reductions or a complete shut-off to achieve its geopolitical ends, the additional gas infrastructure could carry a reverse flow of gas from Germany into affected areas in CEE.

CEE heads of government seem unconvinced by this argument. While Russia has not specifically used this lever of influence for some time, it now holds de-facto control over the Caspian Sea, owed to its military actions in Syria. This control all but ensures any effort to bypass Russia with the proposed Trans-Caspian Pipeline will be stymied, making this alternative for CEE LNG source diversification increasingly unlikely.

These geopolitical factors leave the development of the LNG terminal on Krk perhaps the most promising new avenue for market-driven supply diversification for the CEE states. Furthermore, it provides a significant opportunity for the growing U.S. LNG industry, which must find new demand amidst a global saturation of supply.

## Mixed messages on gas

Natural Gas Europe, 27.05.2016



Executives at two European gas merchants, Centrica and Wingas, have made clear their views on regulation. Rather than creating a fertile environment where the risks and rewards are known, they say regulators and well-intentioned governments appear to have devised schemes capable of reducing the hardiest investor to a state of analysis paralysis.

The CEO of Centrica Iain Conn told that unpredictable rules were making investors wary; while the head of sales of Wingas Ludwig Mohring, rhetorically asked whether the rush to build publicly-funded pipelines was not going to result in stranded assets, whose cost would be borne by consumers.

Meanwhile the privately-funded Nord Stream 2 pipeline project – which predates the EC's Energy Union that might have been conceived with the sole aim of frustrating it – remains in a regulatory void, bitterly resented by states in eastern Europe.

The executives made many other points too, regarding the failure of the carbon emission trading scheme and the resulting need for subsidies for renewables in the pursuit of notional goals. As the Oxford University energy economist Dieter Helm points out, the much-heralded COP21 agreement to limit temperature rises to 1.5 deg C is a fantasy given that the signatories could not even agree earlier to stick to a 2 deg C rise; and he said COP21's lack of enforcement measures to limit a country's carbon dioxide emissions to what it had committed to, proved the point. This capacity to hold two conflicting beliefs allows governments to plough on in pursuit of publicly-stated targets, yet knowing they are unachievable for all kinds of reasons: practical, economic, or legal.





This widening credibility gap is creating tensions between utilities in some member states and the European Commission or their own governments, and this feeds down into tensions between private investors and the transmission system operators in their markets.

And yet despite the manifest failings, there must be successes too, as Europe's deep, liquid and tradeable markets with hubs dotted about it are seen as the ideal destination for all that surplus cheap LNG.

One of Europe's oldest LNG suppliers, Algeria, was told this week that the old way of doing business will no longer suffice if it is to continue as a major gas producer. Energy Commissioner Miguel Aria Canete told an EU-Algeria forum in Algiers May 22-23 that the country had to attract new investments to maintain its exports to the EU in the long term.

A month ago, Algeria and its state oil and gas producer Sonatrach and state energy distributor Sonelgaz signaled they are open to international financing, as the country's oil and gas export revenues halve. Recent licensing rounds have not been successful and if this goes on, then Algeria's position as a key gas supplier could be compromised, Canete said. "The gas market is always evolving and that is why I welcome the minister's changing of exploration and production terms."

Algeria is in a weak position. Its gas production has stagnated, with more consumed by the domestic market, and this – together with the fall in oil and gas prices – has accelerated the decline in export revenues. Gross exports by pipe from Algeria to Italy in 2012 were 20.82bn m<sup>3</sup>, making Italy Sonatrach's biggest gas export market; but by 2014 these slumped to 6.77bn m<sup>3</sup> and grew only slightly in 2015 to 7.24bn m<sup>3</sup> in 2015, according to Italian gas grid operator Snam. Only a fraction of that decline was offset by Algerian LNG exports to places like Asia and South America.

Energy minister Salah Khebri told the forum that the country's export capacity was almost 90bn m<sup>3</sup>/yr, of which about 50bn m<sup>3</sup> went through pipelines to Europe and the rest was sold as LNG. Against this bleak background, Canete said that Algeria was a reliable partner the EU could count on, and its LNG was a good fit with the EU's security of supply strategy.

"It is perfectly logical therefore that we have chosen Algeria to hold our very first Business Forum with one of our international partners," he said. "It is very important that Algeria keeps this privileged position," he said, noting that the construction of the Midcat line between France and Spain would open new markets for Algerian gas.

Midcat's timetable however is slipping further into the future as gas demand is weak, and the job of moving gas from Spain to France or vice-versa might be more cheaply done with LNG tankers than an inflexible pipeline carrying uncertain volumes.

Canete also said that just as the EU needed security of supply, so Algeria needed security of demand to justify new investment. He said the EU would make its needs more transparent so that its suppliers had solid facts on which to base their investment decisions. "We will continue to make progress in this area," he said, apparently aware that the EC has been sending mixed messages about gas demand. It is a fossil fuel and therefore on the way out of Europe; but nevertheless it is essential until something better comes along.

And finally a word about shale: Canete said Algeria's potential is evident: it is tenth in terms of its proven gas reserves and also extremely well placed in terms of accessible shale gas. These reserves remain unproduced although some licences have been awarded to international oil companies.

And the reasons for the inactivity are similar to those elsewhere in the world where shale gas remains locked away underground: public opposition; the lack of water; not enough rigs; and now, low oil prices rendering it uneconomic.

However, a crack has appeared in the UK: North Yorkshire County Council this week awarded a producer, Third Energy, the country's first permit for hydraulic fracturing since the moratorium was imposed some five years ago. Keen to dampen excitement, Third Energy was careful to point out that this was just the first step in a long road that might ultimately lead nowhere. It was impossible to tell if the investment would be commercial until wells had flowed gas. Nevertheless it is a start; and could be followed by others.

Cuadrilla is set to find out by July 4 if its appeal against the controversial negative decision by Lancashire County Council – it overruled its planning committee, forcing Cuadrilla into a lengthy appeal process – has been successful. And at rival onshore producer Igas, CEO Stephen Bowler said this week he was “delighted that Third Energy were granted planning permission to hydraulically fracture their existing KM8 well...

There is a pressing need to deliver lower carbon energy that is home grown, provides important energy security for the future alongside economic benefits to the local communities as well as the country as a whole.” Igas too has ambitions for shale gas production, and has farmed out acreage to a number of companies, including Centrica and Total. The French major cannot hydraulically frack at home.

## Trump's huge energy speech was hugely wrong

Foreign Policy, 26.05.2016



Donald Trump waded into energy policy in a speech in North Dakota on Thursday, betraying the same lack of basic knowledge about how the energy business works that he has shown on nuclear weapons, international alliances, and global trade.

Trump, celebrating his virtual clinch of the Republican presidential nomination, sought to portray the Obama administration as hostile to energy development, especially of oil and gas, even though in the last eight years the United States has added more oil and natural gas to the global market than any other country.



The presumptive nominee rattled off a litany of confusing or incorrect statements about U.S. and global energy. He said that federal regulations on oil producers make it “harder and harder to turn a profit,” overlooking a historic collapse in oil prices. He said he would legalize U.S. crude oil exports, which Congress already did last year.

And he compared sanctions relief on Iran to the Obama administration’s hostile stance toward the Keystone pipeline, complaining that now more oil will flow through Iran’s “pipeline with no environmental review whatsoever.” Iran, of course, exports its crude oil by tankers.

It’s hardly the first time this week Trump’s ignorance of the energy business has bit him. On Monday, the boss of one of the biggest coal companies, Robert Murray of Murray Energy Corp., said he talked energy policy with Trump. He said the candidate readily agreed with many of his suggestions, such as opening up exports of liquefied natural gas, or LNG. Then, Murray said, Trump asked: “What’s LNG?”

In Bismarck, in between non sequiturs on gun rights, Trump also took aim at the energy policies of Democratic front-runner Hillary Clinton, who has advocated more regulation of the energy business and who wants to transition from dirty fossil fuels to renewables like wind and solar power.

In a state absolutely battered by the oil price bust of the last year-and-a-half, which has led to layoffs, abandoned housing projects, and a shrinking state budget, Trump portrayed the election as a choice between poverty and plenty.

“It’s a choice between sharing in this great energy wealth [and] sharing in the poverty promised by Hillary Clinton,” he said. Trump’s energy policies are shaped by his longtime association with Harold Hamm, the CEO of Continental Resources, a big player in the U.S. fracking boom, who Trump said Thursday taught him “everything I know about energy.”

What he knows, by and large, is to repeat standard GOP talking points, crystallized in the “drill, baby, drill” refrain that marked the 2008 race. He called for “energy independence,” an end to regulations on oil and gas drilling and coal production, a repeal of electricity regulations meant to curb greenhouse gas emissions, and giving oil companies greater access to oil-rich areas ranging from the Alaskan wilderness to the waters off the Atlantic coast.

He lambasted the “totalitarian” Environmental Protection Agency, a Republican creation, and said he would approve the Keystone oil pipeline from Canada, provided the pipeline developer, TransCanada, shared profits from the project “with the American people.”

Trump also took aim at the Paris climate accords, a voluntary and nonbinding international agreement reached last December, whereby countries agreed to take steps to clean up their energy sectors to cut the dangerous emissions that are accelerating global warming.

“This agreement gives foreign bureaucrats control over how much energy we use, right here in America,” Trump erroneously said, to loud applause in Bismarck. Under the Paris accords, all climate policies are determined nationally, nothing is binding, and there are no “foreign bureaucrats” involved. Even his own energy proposals are torn by internal contradictions. Trump has repeatedly promised, and told that he would bring back coal-mining jobs to the United States.



At the same time, he wants to supercharge the hydraulic fracturing revolution that has made the United States the world's biggest producer of natural gas. But it is precisely that flood of cheap gas that has knocked coal off its perch, because utilities prefer to use cheaper fuels to generate electricity.

Asked about that at a press conference ahead of the energy speech, Trump instead blamed coal's problems on government regulations that "have gotten out of control," as well as proposed Obama administration policies that have yet to come into effect. As for the market forces that have made coal an unappealing source of energy, he said, "Market forces are ... beautiful."

Those same market forces, including a sharp plunge in the price of crude oil from highs of more than \$100 a barrel in mid-2014 to less than \$40 a barrel earlier this year, have poleaxed the oil patch in places like North Dakota and Texas. U.S. shale oil producers need higher prices than producers in other countries to make money, because blasting open underground shale formations with high-pressure chemical cocktails is more expensive than simply tapping underground oil reservoirs, as in Saudi Arabia.

Thanks to the sustained low prices, oil companies in the United States and around the world have stopped drilling wells, laid off thousands of workers, and slashed their capital expenditure budgets for a record two straight years. While none of that has anything to do with Washington, and plenty to do with a massive glut of oil sloshing around the globe, Trump blasted the Obama administration for causing that pain.

"He's allowed this country to hit the lowest oil rig count since 1999, producing thousands of layoffs," he said. As a remedy for the oil sector's woes, Trump proposed opening up more areas for exploration, including in Alaska and in deep waters offshore. It is not clear why greater access to expensive Arctic and offshore oil development would be appealing to oil companies, which are shutting down even cheap wells onshore and which can't make money on those projects at current prices.

Even though the Obama administration opened up the Alaskan Arctic to oil production last year, companies like Shell have bailed out of those frontier projects precisely because of the lousy economics.

After railing about all the bloodletting in the oil sector, thanks to plunging crude prices, Trump vowed as president to make America "energy independent." Even if that were possible, it would do nothing to insulate American oil workers from precisely the kind of global price swings that have so battered them over the past two years. "Under my presidency, we'll accomplish a complete American energy independence. Complete. And lots of jobs," Trump said.

## US inventories of crude fall, gasoline rise

AA Energy Terminal, 26.05.2016



Weekly crude oil inventories in the U.S. fell more than expected, while gasoline stocks increased for the week ending May 20, the country's Energy Information Administration (EIA) figures showed Wednesday.

Crude oil stocks fell by 4.2 million barrels, or 0.8 percent, to 737.1 million barrels. The market expectation was a 2.4 million barrel decline, while crude inventories rose 3.1 million barrels the previous week. Strategic Petroleum Reserves remained unchanged at 695.1 million barrels. In addition, crude oil production fell by 24,000 bpd on average for the week ending May 20 to stay below 8.8 mpbd.

Total oil output in the U.S. is now 800,000 barrels a day less on average than June 2015 when production peaked at 9.6 mbpd -- the highest level since the 1970s. Meanwhile, crude oil imports fell by 362,000 barrels a day to 7.3 mbpd for the week ending May 20, according to the EIA.

However, weekly gasoline stocks rose by 2 million barrels, or 0.9 percent, to 240.1 million barrels during that period. After the EIA data revealed weekly rise in gasoline inventories, oil prices fell shortly, but preserved their daily gains to stay above \$49 per barrel -- their highest level in the last seven months.

## Global oil price to soar after 2017, IEA head says

AA Energy Terminal, 21.05.2016



As global oil demand increases, oil prices will be pushed up and escalate after 2017, said IEA Executive Director Fatih Birol. From below \$30 in January 2016, crude has climbed up to \$50 in mid-May, reaching its record high level.

The current course of oil price has coincided with IEA's expectations, Birol told. Current oil stocks are slowly depleting due to low oil prices cutting U.S. output, he said, "Oil price is increasing caused by less oil in the market while demand is rising strongly." Crude price per barrel surged pushed by global output disruptions from Canada resulting from a fire in oil sand area, Birol stated.



Additionally, oil production has significantly dropped in Nigeria due to pipeline attacks, he said. "These factors are temporary, if these countries can resume production then there could be a downward pressure on the market once again, but in any case, we expect the price trend to go up no later than 2017 onwards," Birol argued. This is good news for many oil producing countries, he underlined.



# Announcements & Reports

## *Algerian Gas: Troubling Trends, Troubled Policies*

**Source** : OIES  
**Weblink** : <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/05/Algerian-Gas-Troubling-Trends-Troubled-Policies-NG-108.pdf>

## *Short-Term Energy Outlook*

**Source** : EIA  
**Weblink** : <http://www.eia.gov/forecasts/steo/>

## *Natural Gas Weekly Update*

**Source** : EIA  
**Weblink** : <http://www.eia.gov/naturalgas/weekly/>

## *This Week in Petroleum*

**Source** : EIA  
**Weblink** : <http://www.eia.gov/petroleum/weekly/>

# Upcoming Events

## *Caspian Oil & Gas*

**Date** : 01 – 04 June 2016  
**Place** : Baku, Azerbaijan  
**Website** : [www.caspianoilgas.az/2016/](http://www.caspianoilgas.az/2016/)

## *Yamal Oil & Gas*

**Date** : 08 – 09 June 2016  
**Place** : Salekhard, Russia  
**Website** : [www.yamaloilandgas.com/en/programmerequest/](http://www.yamaloilandgas.com/en/programmerequest/)

## *7<sup>th</sup> International Energy Forum*

**Date** : 10 June 2016  
**Place** : Istanbul, Turkey  
**Website** : [www.iicec.sabanciuniv.edu](http://www.iicec.sabanciuniv.edu)



## *Energy Systems Conference 2016*

**Date** : 14 - 15 June 2016  
**Place** : London, UK  
**Website** : [www.energysystemsconference.com](http://www.energysystemsconference.com)

## *World National Oil Companies Congress*

**Date** : 15 - 16 June 2016  
**Place** : London, UK  
**Website** : <http://www.terrapinn.com>

## *Energy Trading Central and South Eastern Europe 2016*

**Date** : 15 – 16 June 2016  
**Place** : Bucharest – Romania  
**Website** : <http://www.energytradingcsee.com/>

## *Eurasian Natural Gas Infrastructure*

**Date** : 22 – 23 June 2016  
**Place** : Athens – Greece  
**Website** : <http://www.engi-conference.com/>

## *ERRA Summer School: Introduction to Energy Regulation*

**Date** : 20 - 24 June 2016  
**Place** : Budapest, Hungary  
**Website** : <http://erranet.org>

## *9<sup>th</sup> SE Europe Energy Dialogue*

**Date** : 29 – 30 June 2016  
**Place** : Thessaloniki, Greece  
**Website** : [www.iene.eu](http://www.iene.eu)

## *Global Oil & Gas - Black Sea and Mediterranean*

**Date** : 22 – 23 September 2016  
**Place** : Athens, Greece  
**Website** : [www.iene.eu](http://www.iene.eu)

## *23<sup>rd</sup> World Energy Congress*

**Date** : 09 - 13 October 2016  
**Place** : Istanbul, Turkey  
**Website** : <http://wec2016istanbul.org.tr/>





## *15<sup>th</sup> ERRA Energy Investment & Regulation Conference*

**Date** : 17 - 18 October 2016  
**Place** : Budapest, Hungary  
**Website** : <http://erranet.org/InvestmentConferences/2016>

## *21<sup>st</sup> IENE National Conference "Energy and Development 2016"*

**Date** : 24 - 25 October 2016  
**Place** : Athens, Greece  
**Website** : [www.iene.eu](http://www.iene.eu)

## *European Autumn Gas Conference 2016*

**Date** : 15 – 17 November 2016  
**Place** : Hague, Netherlands  
**Website** : <http://www.theeagc.com/>

## *5<sup>th</sup> Greek Cyprus Energy Symposium*

**Date** : 29 - 30 November 2016  
**Place** : Nicosia, Greek Cyprus  
**Website** : [www.iene.eu](http://www.iene.eu)