## Oil & Gas Bulletin

08.12.2017



# Israel-Europe nat. gas pipeline up for signing Tuesday

Anadolu Agency 04.12.2017



A memorandum of understanding to build a gas pipeline to transfer natural gas from Israel to Europe will be signed on Tuesday in Greek-administered Cyprus.

Local media reported that when complete, the pipeline is set to be the longest in the world. The pipeline is expected to connect Israel's Leviathan gas field via the Aphrodite gas field in Greek administered Southern Cyprus through the waters of Crete, Greece and Italy. According to Israel's Ministry of National Infrastructures, Energy and Water Resources, the pipeline will be 2,000 kilometers long.

This will carry around 16 billion cubic meters of gas per year, and will be completed by 2025. The cost of the natural gas pipeline is forecast to be about \$6 billion.

### Fresh Israel-Egypt pipe proposal

Natural Gas World, *04.12.2017* 



All Delek Drilling, one of the partners in Tamar and Leviathan offshore gas fields, is proposing a new pipeline that will connect Israel to Egypt at relatively low cost and short distance.

The new proposed overland pipeline is just 100 km long and would connect Israel's grid to Egypt's grid in a path south of Gaza strip. The proposal was presented by Delek Drilling CEO Yossu Abu at the 2017 Energy and Business Convention. Other proposals to connect Israel with Egypt were undersea pipelines, either the el Arish-Ashkelon pipeline or a new 450 km undersea pipeline requiring over \$1bn investment.

The new overland 100 km pipeline would cost only \$100mn, according to Abu. However he notes that Israel will anyway be connected to the Arab pipeline when Israeli infrastructure is connected to the Jordanian grid, expected to happen in 2019 when gas from Leviathan is expected to flow to Jordan's Nepco. Overland gas pipelines raise greater security risks both to Israel and its neighbours.



Despite signs that Egypt's upstream gas industry is recovering strongly, Abu claims that in 2020 the country may lack up to 30 bn m3 and that Israel would be well positioned to supply such a deficiency. That runs counter to the giant Egyptian Zohr field operator, Eni, which indicates that roughly 10bn m3/yr will start flowing from Zohr later this year, and 20bn m3/yr more from late 2019. Earlier in the convention, Israel's energy minister Yuval Steinitz said that within ten years Israel would become a gas exporter to Western Europe. He also promised that by 2030 Israel would stop using coal for power generation. Yigal Landau, the CEO of Ratio, a partner in Leviathan project, said that Israel has to remove a few barriers in order to lure new investors, following the failure of the latest licensing round when none of the majors showed any interest. For example he said that Israel has to cancel the obligation to lie a pipeline from every gas field to the Israeli shore.

# Trans-Caspian pipeline project: Caspian fantasy turns into reality?

Trend New Agency, 06.12.2017



Russian Foreign Minister Sergey Lavrov's announcement over the Caspian Sea Legal Status has rekindled many of the hopes and dreams related to the Trans-Caspian pipeline project, that was being discussed for some 20 years.

Lavrov, following the Moscow meeting of the five Caspian littoral states on Dec. 5, said that the draft convention on the Caspian Sea legal status is ready and will be submitted to the heads of states at the Summit next year. His statement that "we have almost completed the 20-year work on the convention on the legal status of the Caspian Sea" indicated a seriousness not seen before.

But that may give a 'green light' to the long-awaited Trans-Caspian pipeline project. The legal status of Caspian Sea, with huge hydrocarbon resources, has been under discussion since 1991, when Azerbaijan, Kazakhstan, and Turkmenistan gained independence following the collapse of the Soviet Union. The Caspian states were mulling two possible options to determine the legal status of the Caspian Sea: delimitation using a mid-line modified method or division into 5 equal parts given each nation a 20 percent share. If the Caspian is legally declared a sea, all five littoral countries would map out their territorial waters and exploit the resources as they see fit.

The Caspian Sea legal status was named as the main obstacle on the way of the Trans-Caspian pipeline project (TCP) that would open up for Europe the resources of Turkmenistan, a country with the world's fourth-largest gas reserves. The TCP project has been around since mid-1990s. The idea was to build a pipeline across the bottom of the Caspian Sea to carry Turkmen gas to Azerbaijan, from there in pipelines through Georgia to Turkey and onward Europe.



Turkmenistan has repeatedly stated that it is ready to supply Europe with gas, while the EU has never ceased its support to the project once even setting a firm date to get Turkmen gas. Then the idea was dreamy enough for a number of reasons, most notably due to ecological concerns of some countries and lack of the Caspian Sea status. Turkmenistan and Azerbaijan's preference is to divide the Caspian Sea along existing national borders, and Russia opposes any undersea project backing its interest in delaying progress to avoid Gazprom's defeat in Europe, while Iran also opposes the project given its hopes pinned on gas supplies to Europe.

Now, with the Caspian Sea legal status at least appearing closer to the resolution, the idea of Turkmen gas reaching European markets by the end of the decade appears to be real, even if not in this decade, but in the next one. Better conditions exist today for bringing the Turkmen gas to Europe with the launch of the Southern Gas Corridor project, designed to transport gas from the Caspian region to European countries. As Europe views the TCP as a good chance to diversify energy supplies, its joining the Azerbaijan-initiated system of gas pipelines is just as real. After the resolution of the main issues, Turkmenistan may feel confident to sign deal with companies to build the pipe through the Caspian seabed. The determination of the long-debated legal status may bring Turkmenistan one step closer to see its gas reaching the 'old continent'.

Turkmenistan's recoverable reserves are estimated at 17.5 trillion cubic meters of gas or nine percent of total global reserves, which puts Turkmenistan fourth, after Iran, Russia and Qatar. In early 2016, Russia canceled gas import agreement with Ashgabat. Iran, is another buyer of Turkmen gas, but Ashgabat still needs to expand its export market. Turkmenistan has contracts to ship gas to China, which is a huge market for the gas suppliers. So, dependence on one market is not in interests of Ashgabat, given that the Turkmen government aims to produce some 230 bcm of gas by 2030 and export 180 bcm of that volume.

### OPEC extends oil cuts to end of 2018

Oil & Price, 30.11.2017



Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC oil producing countries agreed to extend their oil production cut further nine months to the end of 2018 on Thursday. The decision came as the previous cuts helped the oil prices to recover from the levels of \$27 per barrel in January 2016 to nearly \$63 in recent days.

During the 173rd (Ordinary) OPEC Meeting and the third OPEC and non-OPEC Ministerial Meeting in Vienna, the organization and oil producing countries led by Russia decided to extend an oil production cap of 1.8 million bpd.



It is further to the end of December 2018, which was due to end in March '18. "In view of the uncertainties associated mainly with supply and, to some extent, demand growth it is intended that in June 2018, the opportunity of further adjustment actions will be considered based on prevailing market conditions and the progress achieved towards re-balancing of the oil market at that time," notes OPEC's Declaration of Cooperation. The non-OPEC signatory countries included Azerbaijan, Kingdom of Bahrain, Brunei Darussalam, Kazakhstan, Malaysia, Mexico, Sultanate of Oman, the Russian Federation, Republic of Sudan, Republic of South Sudan.

Khalid Al Falih, Saudi Arabia's minister of energy, industry and mineral resources and the president of the OPEC conference, said that the results of OPEC's and non-OPEC countries' joint efforts are evident and "the numbers speak for themselves." Al Falih stressed the cooperation of OPEC and non-OPEC producers has made extraordinary difference that has intensified the impact of their efforts and produce the improvements in the oil markets' positive reaction. "There is now global recognition that without our collaborative action, the market would have continue to exhibit extreme volatility and future uncertainty with far reaching negative consequences for producers consumers, investors, the industry and the global economy at large," Saudi minister said.

On IMF's forecasts for the global growth in 2018 at 3.7%, al Falih said that the direction of the oil market over the past several months showed a distinct improvement. "This gratifying outcome has resulted primarily for 100 percent or more compliance to the production targets by OPEC and non OPEC producers. Such positive developments show that we are heading in the right direction but we still have more to do in terms of inventories and reaching the target levels," he said.

"Demand is forecasted to continue at a very healthy pace that we have seen in the last couple of years. But you never know," al Falih noted. "But for supply, non-participating countries and regions remain a question mark and we acknowledge the potential variabilities especially from the shale producers in U.S.," he continued. Al Falih also said that Nigeria and Libya, who are exempt from the agreement, declared that their 2018 levels will not exceed what they were able to achieve in 2017, therefore there are no surprises to be expected from Libya and Nigeria. "So we feel that supply is going to be fairly managed by the collective efforts and the commitment that we heard from each country that was around the table over the last couple of days," he asserted. Russian Energy Minister Alexander Novak also said that it is very positive to see the Vienna agreement, the Declaration of Cooperation, is being successfully implemented and continues to have a strong positive impact on oil market.

"Today as we approach to the intermediate point in our Vienna agreement, I think it is very important for us to analyze intermediary goals and results, and to choose our strategy which we like to follow in 2018," Russian minister continued. Novak underlined that the market continues to see inventory draws both on the global levels and various key regions, significantly helping decline volatility and therefore the return of investment into the sector. "In order to rebalance the market, we must continue to act in a coordinated fashion, to act jointly which will take us further to 2018," he asserted.



OPEC members on Nov. 30 last year unanimously agreed to lower oil production by 1.2 million barrels per day (bpd) down to 32.5 million bpd, which became effective on Jan. 1, 2017. This is the first production cut by the organization in eight years, and its first intervention in the global oil market since mid-2014 when oil prices began to fall. Also, the non-OPEC oil producing countries led by Russia agreed to contribute a cap of 600 thousand bpd, which brought the total production cut up to 1.8 million bdp. Organization for Economic Co-operation and Development stock overhang was 280 million barrels above the moving five-year average, but that it had since fallen by almost 50 percent to 140 million barrels for the month of October.

### Oil markets calm after OPEC storm

Oil & Price, 05.12.2017



Gazprom Oil prices retreated slightly at the beginning of the week as the excitement from the OPEC meeting faded, though sentiment remained bullish in the markets.

Natural gas production in the Appalachia region (which includes the Marcellus and Utica shales) has increased by more than 14 billion cubic feet per day (Bcf/d) since 2012. That growth has been the main driver behind the growth in total U.S. gas output. From January through October 2017, total natural gas output from the Appalachia region averaged 23.8 Bcf/d.

Gas output per rig from new wells also shot up in the region over the past few years. Since 2012, average monthly output per rig for new wells increased by 10.8 Mcf/d since 2012, much higher than any other region in the country. Oil prices fell back a bit on Monday as the dust from the OPEC meeting settled. Hedge funds and other money managers still have an enormously bullish positioning, which will leave open the opportunity for profit-taking. "A lack of any significant bullishness in the weekend let the bears regain control they were looking for," Donald Morton, senior vice president at Herbert J. Sims & Co., told the Wall Street Journal.



### Does OPEC need an exit strategy?

Oil & Price, 04.12.2017



One of the crucial details that OPEC omitted when it rolled over its production cuts for another year was how the group plans on winding down the agreement. When pressed by reporters, Saudi oil minister Khalid al-Falih said that it was "premature" to talk about an exit strategy.

Taking "extraordinary measures" to rescue the oil market without any idea on how to exit the intervention is not unlike what central banks have done over the past decade to juice the global economy. Intervening is easy, backing out is the tricky part.

Al-Falih emphasized that any exit would be "gradual," and he went to great lengths to point out the strong relationship between Saudi Arabia and Russia, and not addressing how to end the deal is critical to that. "For now, the OPEC-Russia bromance continues." Jamie Webster, an OPEC watcher at the Boston Consulting Group, told Bloomberg. However, if it took some arm twisting to keep Russia on board for an extension this time around, it will be exceedingly difficult to extend again in a year, when the oil market is much tighter. As of now, OPEC and Russia don't see global inventories falling back into the five-year average until the second half of 2018—seasonally lower demand during winter months suggests that the destocking process will take a breather in the first quarter.

Included in the November 30 announcement was the fact that all parties would revisit the agreement at the next OPEC meeting in June. That seems to be a formality since the meetings are always a time and place at which OPEC assesses the health of the oil market, but if the market tightens too much and prices rise significantly, Russia could push to end the agreement early.

The flip side is that higher prices could spark another wave of shale drilling, which could keep a lid on prices and extend the "rebalancing" period. We'll just have to wait and see, and the oil market will be left in the dark on the exit strategy until June at least, unless something extraordinary happens before then. Goldman Sachs took a unique perspective, arguing that OPEC made it clear that it would act to stifle volatility, and that the oil markets are underappreciating that fact. According to this view, the exit strategy is somewhat of a misplaced question. Al-Falih's comments about how the group will remain "agile and responsive" to market conditions, combined with the fact that the overarching objective of the production cuts is to bring global inventories back down to the five-year average, indicates that OPEC will "remain data dependent, which reduces the risk of both unexpected supply surprises and excess stock draws," Goldman analysts wrote in a November 30 research note.



"This leads us to reiterate our view that long-dated implied volatility remains too rich in the face of growing certainty on breakevens and sources of future supply," Goldman said. "Although an exact exit strategy was not formalized, today's announcement will further defuse long-term supply uncertainty in our view, with the latest earnings from U.S. E&Ps and oil majors also con?rming persistent declines in breakevens." In other words: Nervy oil traders wondering about an exit strategy should just chill out—OPEC has everything under control.

If the cuts tighten the market too much, OPEC has spare capacity sitting on the sidelines that it can call into action, while the extension of the cuts should take care of any shale comeback. There is "time to settle" the coming growth in shale output "until the cuts end," while the OPEC extension is still not too aggressive, Goldman argued, "reinforcing its volatility dampening effect." Meanwhile, the cap on Nigeria and Libya at 2017 production levels takes away any supply surprise from them. In short, the oil market is in good hands; and the volatile trading is unjustified. Goldman even said that it assumes that similar production cut agreements (if not this one) will "continue in the coming years even after production starts to rise, consistent with OPEC's modus operandi of the 1990s."

# Appalachian basin produces more natural gas than any OPEC country

London Stock Exchange, 23.11.2017



This week in one of their daily Today In Energy columns, the Energy Information Administration highlighted the tremendous growth of natural gas production in the Appalachian Basin.

Shale gas production in the Appalachia region has increased rapidly since 2012, driving an overall increase in U.S. natural gas production. According to EIA's Drilling Productivity Report, natural gas production in the Appalachia region—namely the Marcellus and Utica shale plays—has increased by more than 14 billion cubic feet per day (Bcf/d) since 2012.

Overall Appalachian natural gas production grew from 7.8 Bcf/d in 2012 to 22.1 Bcf/d in 2016 and was 23.8 Bcf/d in 2017, based on EIA data through October 2017. This 200% increase in Appalachian natural gas production since 2012 has had significant implications in the U.S. market. It has driven down costs for consumers, is fueling a renaissance in the chemical manufacturing industry, and has helped push coal-fired power plants out of business.



Most people likely have no perspective of just how much gas production is now coming out of the Appalachian Basin, so I thought I would illustrate. According to EIA data, the Appalachian Basin produced 22.1 Bcf/d of natural gas in 2016. Only one country in the world other than the U.S. --Russia -- produced more natural gas last year than the Appalachian Basin. In fact, the Appalachian produced more gas than even entire continents like Africa and South America. The region also produced more natural gas than any OPEC country. However, there are some warning signs on the horizon. The EIA reports that production from new wells in the region has been on a downtrend since early 2016.

# Russia's Yamal LNG facility to start shipment on Dec. 8

Reuters, 05.12.2017



Yamal LNG was granted state permission to commission the main technological facilities of the LNG plant's first stage, the company said on Tuesday.

According to the statement, the project includes the first liquefaction train, 58 gas wells, and the respective infrastructure. Evgeniy Kot, the general director of Yamal LNG, said that obtaining permission to commission the first LNG train is the cumulative result of many months of hard work. "We not only maintained our strict project deadlines, but we also expect to launch the second and third LNG trains ahead of schedule," he stated.

The design capacity of the first LNG train is 5.5 million tons per annum. "Yamal LNG plans to begin shipping LNG before the end of 2017," the statement read. The timely delivery of liquefied natural gas (LNG) from the Yamal LNG facility is unusual in the LNG industry, said a Wood Mackenzie expert on Tuesday. Senior Research Manager, Russia Upstream Oil & Gas at Wood Mackenzie, Samuel Lussac, said that LNG projects often experience significant cost overruns or delays.

The Yamal LNG terminal located on the Yamal Peninsula in the Arctic port of Sabetta, plans to have an output capacity of around 16.5 million tons per year, and was expected to be fully operational by 2018. Lussac said that with this first exported LNG cargo, scheduled for Dec. 8, domestic gas supplier and majority stakeholder in the facility, Novatek will become a global LNG player. He also said largely owing to its low-cost upstream base, the Yamal LNG will offer competitive prices for short-term LNG global oversupplies. "Even though an important milestone has been achieved, there are still risks associated with Yamal LNG performance and logistics," he said and added that the plant's first operating months will show whether the plant can operate smoothly in the harsh Arctic environment. "The Northern Sea Route transportation is in its early stages of development, and its feasibility as a major LNG delivery route is unclear," he said.



# Baltic countries aim for gas hub concept in region

Anadolu Agency, 08.12.2017



Three Baltic states, Lithuania, Latvia and Estonia and the Nordic country Finland plan to develop the concept of a natural gas hub in the region to diversify gas sources, according to Catharina Sikow-Magny, the European Commission's head of unit in charge of internal market, networks and regional initiatives in the Directorate General of Energy.

Magny told Anadolu Agency that these four countries are in the process of merging their gas markets into one to cover supplies to all.

She explained that for the time being all countries operate more or less like and island and are all dependent on Russian gas except for LNG from Lithuania's Klaipeda LNG terminal. However, an interconnector to Poland would change this allowing greater connection between all countries so common rules and procedures across the four countries could be developed into the concept of a hub, she explained.

Progress towards this aim is on track with important planned projects like the Balticconnector between Finland and Estonia and Poland-Lithuania interconnection project (GIPL) between Poland and Lithuania. Construction of the GIPL is set to start by December 2019. The Baltic States and private investment along with the commission's contribution will fund the €558 million project, she said. The gas pipeline will stretch some 357 kilometers in Poland and 177 kilometers in Lithuania. It will be capable of delivering 2.4 billion cubic meters of gas per year from Poland to Lithuania, and 1 billion cubic meters of gas per year from Lithuania to Poland. The Balticconnector is a gas pipeline connecting Finland and Estonia. It will link the Finnish and Baltic gas markets, enabling their integration with the EU's common energy market. Furthermore, the construction of new gas infrastructure in the Baltic States will allow bi-directional gas transmission between Estonia and Latvia.

"The main aim is to have access to diversified sources of gas. Russian gas, LNG and through the GIPL pipeline to different gas sources through Poland. It could be Norwegian gas or other type of gases as well," she said. The three Baltic States and Nordic countries have already cooperated for the synchronization of electricity networks through recently developed cable projects. "What is key is to make sure that the internal grid between the three Baltic States is efficiently built and operated because that allows for Latvia to take part in the Nordic market either through Finland or Sweden," she said. The important thing is to see that every country is well connected to each other, she concluded.



## Nord Stream II gas pipeline faces fresh obstacles

Anadolu Agency, 01.12.2017



The latest law approved Thursday to allow the Danish government to ban pipeline projects crossing Danish waters, will not have a big impact on Russia's intention to go ahead with the Nord Stream II project, Mikhail Krutikhin, partner of RusEnergy, a Moscow-based analytical and consultancy.

Russia still believes it can obtain all the required permits before the middle of 2018 and start the construction of the Nord Stream II, Krutikhin told Anadolu Agency. "It is not a ban. It enables the government of Denmark to ban such projects theoretically.

But even if they do ban the project in Danish waters, the project can pass beyond the Danish zone," Krutikhin explained. However, Andreas Goldthau, a professor at the department of politics and international relations at the Royal Holloway University of London said that the Danish move would certainly add an additional layer of complexity to building the project. "At the very least - provided the law is applied to the Baltic Sea link - some part of the pipeline will require rerouting through international waters so it becomes subject to the United Nations Convention on the Law of the Sea regime and not national jurisdiction," Goldthau said. He stressed that in addition to making the project more costly, it could also result in delays. However, Goldthau argued that the main issue for the realization of the project is down to whether the EU Commission ends up applying single energy market rules to offshore pipelines by extending the internal market regime to import infrastructure.

The EC's new draft law on Nov. 8 proposes that EU third party access - anti-monopoly legislation applies to offshore pipeline segments in EU territory. According to Goldthau, this law could be the most decisive for the future of the Nord Stream II and the regime under which it ends up operating. The EC proposal is likely to face objection from Germany, the main partner of the project and from Dutch Shell, French Engie and Austrian OMV, who are all significant investors in the project, each with more than €1 billion.

Denmark passed a law on Thursday to permit the Danish foreign minister to ban Russia's Nord Stream II natural gas pipeline from traversing its waters. The bill will allow foreign, security and defense policies to be considered as an argument in support of the ban when Denmark is to decide whether energy companies should be allowed to disconnect power cables and pipelines in Danish territorial waters. In effect, the latest decision will permit the Danish government to decide whether Gazprom's Nord Stream II should be allowed through Danish waters. The entry point of the Nord Stream II gas pipeline into the Baltic Sea will be the Ust-Luga area of the Leningrad Region in Russia from where the pipeline will stretch across the Baltic Sea to Germany.



The line's route passes through the Danish island of Bornholm, between Sweden and Poland. The Nord Stream II is a 1,200 kilometer-long pipeline project, which aims to double the current capacity of 55 billion cubic meters per year for the Nord Stream pipeline. The project faces resistance from some European countries such as Lithuania, Poland and Denmark.

## Eni, Snam to develop CNG service stations in Italy

Anadolu Agency, 05.12.2017



Italian Eni and Snam have signed their first development contract for compressed natural gas fuelling stations in Italy.

According to the announcement, the 20-year contract lays out the plan for the construction and maintenance of a first batch of 14 new CNG (compressed natural gas) plants by Snam within Eni's national network of service stations. As part of Snam's initiatives to promote sustainable mobility, this framework agreement was signed back in May 2017. "Snam will receive an amount estimated between €20 and €40 million from Eni for its services," the statement read.

The contract includes an investment of €150 million to roll-out up to 300 new CNG and L-CNG (liquefied-compressed natural gas) service stations, which will support the development and more balanced distribution of natural gas fuelling stations in different regions across the country. "It will also improve the quality of service for users," the statement read.



## Maersk Oil finances biggest oil, gas field in Nth. Sea

Anadolu Agency, 01.12.2017



Maersk Oil has made the largest ever oil and gas investment in the Danish North Sea with approximately 21 billion Danish kroner (\$3.36 billion), the company announced on Friday.

The company said the Danish Underground Consortium (DUC) approved the investment for the full redevelopment of the Tyra gas field, Denmark's largest gas field in the North Sea. The announcement follows the Danish parliament's approval to implement legislation to secure the investment. The investment enables Tyra to continue operations for at least 25 years.

At peak production, the redeveloped Tyra gas field will provide enough gas to supply 1.5 million Danish homes, supporting energy security, future tax revenues and employment for Denmark. According to Maersk Oil, Tyra is at the heart of Denmark's national energy infrastructure, processing 90 percent of the nation's gas production. "Through new development projects and third party tie-ins, the redevelopment of Tyra can be a catalyst for extending the life of the Danish North Sea – not just for Maersk Oil and the DUC, but also for Denmark," it said.

The redeveloped Tyra is expected to deliver approximately 60,000 barrels of oil equivalent per day at peak, and is estimated that the redevelopment can enable the production of more than 200 million barrels of oil equivalent. Danish shipping giant A.P. Moller-Maersk agreed on 100 percent acquisition of its wholly-owned subsidiary Maersk Oil to France's Total for \$7.45 billion in August.



## Greenlight for Baltic Pipe gas p/line set for late 2018

Anadolu Agency, 04.12.2017



The final investment decision (FID) for the natural gas pipeline project between Denmark and Poland, the Baltic Pipe, is expected no later than December 2018, according to Jeppe Dano, marketing director of the Danish national transmission system operator for electricity and natural gas, Energinet, on Monday.

Dano spoke during the 9th Baltic Energy Summit in Lithuania's capital Vilnius where he provided an update on the Baltic Pipe project noting that if the FID goes as planned, construction will start in 2020 and the project will deliver first gas in 2022.

He explained the new pipeline would provide Denmark and Poland direct access to Norway's gas fields. The 6,800-kilometer-long pipeline will make it possible to transport gas from Norway to the Polish market through Denmark, as well as to customers in neighboring countries, such as Sweden. Dano said that project would provide benefits in four geographical areas - Norway, Poland, Denmark and the European Union.

The project will also maintain low gas transmission tariffs as domestic Danish gas production and consumptions falls off in the coming years. "For Polish players, it means increased security of supply and gas market competition," he said. The project supports the goal of the EU Energy Union, he added. "Direct access to new central and eastern European markets with forecasted additional gas demand is a benefit for Norwegian players," he said. The Baltic Pipe project would expand Europe's gas transmission capacity by up to 10 billion cubic meters of gas per year. In comparison, the total Danish gas consumption for 2016 was 2.5 billion cubic meters.



### Klaipeda LNG terminal benefits Lithuania

Anadolu Agency, 04.12.2017



Lithuania's security of supply has been secured with its LNG terminal in Klaipeda. More than 50 percent of Lithuania's total imported gas in 2016 came through Klaipeda's LNG terminal, Mindaugas said speaking at the 9th Baltic Energy Summit in Lithuania's capital Vilnius.

The purpose of the terminal is security of supply in which they will be able to "easily access LNG in various places all around the world." "It's clear that there is trend and LNG market is growing," he said, adding that the "terminal is now operating with high capacity. More than 50 percent of total gas last year was imported through LNG."

During the year, Lithuania received four cargoes from different continents in North America, South America, Europe and Africa, he said. "In fact we already benefit from the global LNG market. Gas from our terminal already reached Norway, Sweden, Finland, Estonia and Poland as well," he said.

Worst times over with Lithuania's over-dependence on Russia gas. Vytautas Cekanavicius, CEO of Litgas speaking at the same session declared the worst times are over for Lithuania in terms of security of energy supplies. Lithuania started importing LNG in December 2014 to reduce its dependence on Russian gas. "The times when we were paying high prices for gas to Russia is also over. Our companies are looking for alternatives. What we see is that during the last three years, consumption is quite stable," Cekanavicius said. He declared that Lithuania is now enjoying success from the LNG terminal, but said that this success came with hard work and months of negotiation convincing LNG suppliers to engage in trade.

"Now it's much easier and trade in spot transactions is possible," he explained. Currently, Lithuania's gas demand is around 2.5 billion cubic meters while the LNG terminal receives its main cargo from Norway. In 2012, Lithuanian gas demand was more than 3 billion cubic meters, he said.



## Qatar to produce LNG from shale gas in Texas

Anadolu Agency, 05.12.2017



Qatar partnership with ExxonMobil for the \$1.3 billion Golden Pass LNG terminal in Texas is set to start LNG production from shale gas in five years.

In an exclusive interview with Anadolu Agency, Abdullah Bin Hamad Al-Attiyah said that Qatar, the world's biggest LNG supplier, plans to increase its production from 77 million tons per year to 100 million tons in the near future. Al-Attiyah explained that Qatar will increase its annual production from two sources; from local sources and the second from the terminal in Texas.

He said the terminal was initially intended for LNG cargoes from Qatar to the U.S. Al-Attiyah explained that, however, on completion of the terminal's construction, the shale gas boom began and prices dropped impacting transportation costs to the terminal so no cargo was sent there. A decision was taken to convert the terminal's function from re-gasification to a liquefaction using shale gas. Although the construction of the terminal had a cost of \$1.3 billion, it will need a few hundred millions of dollars for the conversion. Now exports of LNG from the terminal are due to begin by 2023.

Demand on rise from Asia, Africa and the Middle East. LNG cargoes from Texas will go to Latin America and Europe while those from Qatar will go to Asia, the Middle East and Africa, he explained. "This is to support our international market and our existing consumers. We believe there will be big demand from China and India and we believe there will be new customers from Asia, the Middle East and Africa," he said. "We will be a main producer of LNG," he affirmed. Qatar has increased its trade with Bangladesh and Pakistan. Qatar has already signed an agreement with Pakistan for 5 million tons per year and last month with Bangladesh for 2.5 million tons. "So this is the new market. For sure, the demand from these markets will increase. Both Pakistan and Bangladesh have huge populations and big shortages of power," he underlined.

According to Al-Attiyah, Qatar is now well placed in the market as it has the most flexibility offering competitive pricing compared to many projects from Australia and other countries, whose offered prices are expensive. Qatar-Turkey cooperation in Mediterranean gas exploration welcome. Qatar is also breaking into the gas exploration market in the Mediterranean through partnerships with a number of international companies like ExxonMobil and Shell. He said that Turkey could also discover gas in the Mediterranean, similarly to Israel and Cyprus, because it is well placed to do so and can play a pivotal role in the region as a supplier.



Turkey could also benefit from a partnership with Qatar for gas exploration in the Mediterranean, he said. "Qatar Petroleum would be happy to partner with Turkey for future discoveries," he stated. "Qatar is very supportive and open for cooperation with Turkey. Turkey is now trying to discover gas in the Mediterranean and has very limited experience in this field," he said.

Turkey's first seismic vessel Barbaros Hayrettin Pasa began operations in the Mediterranean in April 2017. He welcomed further bilateral trade between Turkey and Qatar through investment in third countries and praised the support that Turkey gave in the aftermath of the Saudi Arabia, Egypt, U.A.E. and Bahrain blockade in which Qatar was accused of supporting terrorism in June. "Turkey stood behind Qatar and we received a lot of products from Turkey and other countries. They [the blockade countries] failed because they thought that if they blockaded us, we would collapse but Qatar's economy is strong," he said. Qatar resisted in having money transferred outside the country after the blockade, a move to de-stabilize the country, but the economy is strong, he said.

Al-Attiyah concluded that Qatar exports to around 95 countries in the world. Al-Attiyah is also the former deputy prime minister and minister of energy and industry of Qatar. He currently heads the non-profit organization established to preserve and build upon his 40 years of service in the energy industry.

## China finds major oil reserves in Xinjiang Uygur region

Anadolu Agency, 05.12.2017



China's state-owned giant oil company Petro China found a major oil field in the Junggar Basin in the Xinjiang Uygur autonomous region late Monday.

The oil reserve is one of the biggest oil fields in the world, according to the report. The discovery has the potential of having another one-billion tons of reserves, Xinhua reported Tang Yong, a geologist with PetroChina as saying. Petro China produced 1.38 million tons of oil in this region in the last two years and plans to produce 6 million tons oil between 2016 and 2020.



# China to auction five oil, gas blocks in Xinjiang in reform push

Reuters, 05.12.2017



China is putting out for auction five oil and gas blocks in the remote northwest Xinjiang region to domestic investors, under the government's pledged reform to open up hydrocarbon exploration to players outside the dominant state giants.

This is the second such auction in the Xinjiang region announced by the Ministry of Land and Resources. Lack of private investment in oil and gas exploration has been a big stumbling block in Beijing's attempts to reform the sector, and it has picked the hydrocarbon-rich autonomous region of Xinjiang to try to break the grip of the big companies.

Five blocks totalling 9,091 square kilometres in size in the Tarim basin are offered for bidding, the ministry said in a statement posted on its website on Tuesday. Bidders need to have net assets of 1 billion yuan (\$151.2 million) or more, and have between Dec. 5 to Jan. 2 to collect the data package. A government source with knowledge of the auction said some of these blocks were relinquished by state oil majors which have carried out limited exploration works.

State media reported in January that the government planned to auction about 30 oil and gas blocks this year. In July 2015, the ministry released five blocks in Xinjiang in its first tender to attract non-state investors. An independent Shandong-based company and state-owned Beijing Energy Investment Holdings were among the firms awarded four of the five blocks.



### Cheniere boosts LNG tanker fleet amid Asian demand boom

Reuters, 05.12.2017



U.S. LNG producer Cheniere Energy has expanded its shipping fleet with a flurry of spot vessel charters to keep up with Asian winter demand growth as spot prices LNG-AS hit three-year highs, market sources said.

Cheniere's Sabine Pass terminal in Louisiana pumped out 22 cargoes last month and more are expected as it ramps up its fourth production unit, or train, with more than half of all November volumes sold to China, Japan or South Korea. The world's biggest exporter, Qatar, entirely sold out of flexible winter LNG supply following a frenetic period of deal-making with term buyers in China and South Korea.

Cheniere, which is still bringing new production to market, has chartered seven additional LNG carriers on spot markets as firm demand stretches its existing fleet, increasingly tied up in long-haul voyages, trade and shipping sources said. The company has fixed the Golar Snow, Golar Tundra, Energy Atlantic, Maran Gas Troy, Wilforce, Corcovado, and Clean Horizon carriers, sources said. The charters span a variety of periods, from a single voyage to six months of employment, they said.

A Cheniere spokesman confirmed the company now has 22 ships on the water. With Asian markets fetching a \$1.80 per million British thermal units (mmBtu) premium to European hubs, the U.S. exporter may continue to keep ploughing cargoes into distant Asian markets An 82 percent surge in Asian spot LNG prices this year, driven by robust Chinese demand, rising oil and coal prices and nuclear supply shortfalls in South Korea and Taiwan, has left producers chasing to lock in sales.



# US aims to move in on Russian-dominated gas in Europe

Anadolu Agency, 08.12.2017



The U.S. has set its sights on Europe's gas market that is currently dominated by Russia, experts said Thursday.

Thanks to the U.S. shale gas boom, the U.S. is orchestrating plans to move in on the European gas market to sell its rising LNG production, according to Prof. Dr. Volkan Ediger, Director of Center for Energy and Sustainable Development from Kadir Has University. With the U.S.' sanctions threat that its administration made against European firms involved in Russian gas projects, especially the Nord Stream II gas pipeline project to carry gas to Germany under the Baltic Sea.

It looks as if a Sword of Damocles, or pending doom, is looming over the project. In August, President Donald Trump signed a bill into law imposing sanctions comprising potential measures against companies who give financial or technological support to Russian energy export pipelines. "Energy diplomacy and statements of U.S. officials indicate that the U.S. will do everything to reduce the share of Russian gas in Europe and sell more U.S. LNG," Ediger argued. U.S. Deputy Assistant Secretary of State John McCarrick stated on Wed. Nov. 29 that Washington expected that the construction of Russia's Nord Stream II gas pipeline to Germany would not go ahead, adding that if Russia's gas and energy giant, Gazprom, leads and reaches a deal with European backers, those European companies could face U.S. sanctions.

The Nord Stream II plans to transfer 55 billion cubic meters of capacity to Europe per year to provide sufficient gas flow from Russia to Germany across the Baltic Sea to supply 26 million households in the region. Washington has several aims in imposing sanctions, Volkan Ozdemir, head of the Institute for Energy Markets and Policies says. He maintained that killing the Nord Stream II is such an aim, along with eliminating competition from Russia, creating a gas market for its LNG, exerting control over European firms and indirectly helping Ukraine.

U.S. sanctions cannot impact TurkStream project. Furthermore, he affirmed that the TurkStream pipeline project planned by Russia to deliver gas to Turkey, is also the object of the U.S. administration's opposition, but cannot be subjected to sanctions. "The U.S. is not happy with the TurkStream natural gas pipeline project of course, but the TurkStream's intergovernmental agreement [between Turkey and Russia] had been signed before the U.S. bill came into force. In this respect, the Nord Stream II and the TurkStream are different. I do not think that sanctions can be applied to the TurkStream," he said. This pressure on the realization of the Nord Stream II may prompt Russia to focus more on the TurkStream, Ozdemir said. The TurkStream will send Russian gas to Turkey with the first of its two lines while the second line of the project will carry Russian gas to southern and southeastern Europe.



## Don't expect aggressive U.S. shale drilling

Oil & Price, 05.12.2017



Many analysts expect U.S. shale to put the pedal to the metal after OPEC extended the production cuts through the end of next year, but some shale executives are unmoved from their pivot towards a more cautious approach to drilling.

For years, shale companies burned through cash to grow production, a strategy that promised future returns even at the cost of a sharp increase in debt. The problem was that, by and large, the vast majority of shale companies have come up short, failing to turn a profit even as production soared. They added barrels to the market at an amazing clip.

But shareholders have been left disappointed. The dramatic cost cutting and lowering of breakeven prices over the past year or two offered yet another promise to investors. The days of reckless drilling were gone and the leaner and meaner shale operators would finally become profitable. Countless news articles hyped the extremely low breakeven prices. But right up through this year, the promise of big profits has continued to prove elusive. Shale investors were fed up with the debtfueled shale boom and pressed oil executives throughout 2017 to make changes. Activist investors demanded changes to executive compensation, a conservative and restrained approach to spending, and a focus on profits over growth. The pressure to emphasize cash flow and profits seems to have finally led to change. In the past few months, shale companies of all sizes talked up their shift in strategy. Anadarko Petroleum, for example, announced a share buyback program a few months ago and its share price soared. Some of its peers, on the other hand, continued to announce aggressive production targets—a move that was not received as well on Wall Street.

Still, a growing number of companies have announced a shift in focus. To listen to shale executives at third-quarter earnings time "was to hear actors auditioning for the same part, reading the same lines from the same script," Dan McSpirit, a BMO Capital Markets Corp. analyst, wrote in a note in November, according to Bloomberg. "The story was about capital discipline or growth within cash flow or some variation of it." But some of those decisions began to occur at a time when WTI was wallowing below \$50 per barrel. The big question was whether shale companies would abandon restraint when WTI moved up, perhaps closer to \$60 per barrel. Moreover, the extension of the OPEC deal arguably puts a pretty hard floor beneath oil prices, taking away a lot of risk for shale drillers heading into 2018. Share prices for dozens of shale companies skyrocketed last week when OPEC announced the extension.

So, surely it's full speed ahead for shale growth? Not just yet. A few of the largest U.S. shale companies insisted that they would keep a laser focus on profits at the expense of growth, even after the OPEC announcement. Bloomberg surveyed three shale companies to see how they would respond. "Higher oil prices can bring in more cash to the balance sheet, and you can enjoy that cushion, but there's no need to chase additional activity," Matt Gallagher, Parsley Energy's COO, told Bloomberg on the sidelines of an industry conference in Singapore. "It's paramount that you've got to be disciplined and give visibility on spending."



"If oil prices are higher, that means our cash flow may turn positive that much sooner, but no real change in activity level," Pioneer Natural Resources' Chief Financial Officer Richard Dealy said. At the same time, these larger shale companies don't decide everything. They seemed a bit nervous that smaller, more aggressive shale companies might drill with a sort of reckless abandon. "I hope they are more disciplined this time around," Pioneer's Dealy said. "I don't like \$27 oil, but I don't like \$80 oil either," Gary Packer, COO for Newfield Exploration, told Bloomberg. "Inefficiencies get bred into this industry at high commodity prices, and I think we have built efficiencies within the unconventional space to deliver exciting returns for our shareholders in a \$50 environment."

The top shale companies still want to see production growth, but only if in doing so they can generate strong cash flow, which would allow for higher returns for shareholders. The changes underway in the shale industry highlight how much influence Wall Street has over the shale business. If the profits aren't there, the growth no longer will be. "What we're hearing today from our investors is they want to see more discipline," Newfield's Gary Packer told Bloomberg. "If investor behaviors change and they start rewarding production growth again, it can be a different outcome, but that's not the narrative that we have today."

## US crude oil prod. rises for seventh successive week

Anadolu Agency, 07.12.2017



The U.S.' crude oil production increased for the seventh week in a row last week, according to the country's Energy Information Administration (EIA) data on Wednesday.

Crude production rose by 25,000 barrels per day (bpd) to reach a little over 9.7 million bpd for the week ending Dec. 1, the EIA data showed. "The seventh consecutive weekly rise in U.S. production will raise further concerns about oversupply next year," Thomas Pugh, a commodities economist at London-based Capital Economics, said in a note.

"Indeed, U.S. output is now up by more than 0.9 million bpd since the end of last year," he added. The U.S.' crude oil inventories, on the other hand, decreased by 5.6 million barrels, or 1.2 percent, to 448.1 million barrels for the week ending Dec. 1, according to the EIA data. "The decrease in crude stocks was driven by a further rise in inputs to refineries. High margins and a seasonal increase in demand for fuel are driving the surge in refinery throughput," Pugh said. "In addition, slightly lower net imports helped drain stocks," he added. The U.S.' crude oil imports decreased by 127,000 bpd to 7.2 million bpd for the week ending Dec. 1, the EIA data showed. Exports of crude oil also fell by 54,000 bp to 1.36 million bpd during that period.



## **Higher Oil Prices Widen U.S. Trade Deficit**

Oil & Price, 05.12.2017



The U.S. trade deficit increased to \$48.7 billion in October from \$44.9 billion in September amid rising imports and higher crude oil prices, increasing the value of U.S. oil imports, government data showed on Tuesday.

Total U.S. exports were \$195.9 billion in October, down by less than \$0.1 billion from September. Imports, on the other hand, increased to \$244.6 billion in October, up from \$240.8 billion in September. The trade deficit increased to the highest since January and was above expectations of a Reuters poll of economists who had predicted the October deficit would stand at \$47.5 billion.

Imports of industrial supplies and materials increased \$1.8 billion, reflecting a \$1.5 billion increase in crude oil imports. The U.S. crude oil imports rose to \$10.664 billion in October from \$9.131 billion in September. The average import price of crude oil stood at \$47.26 per barrel in October, the highest level since August 2015, when it was \$49.33, according to the Monthly Trade Highlights. Apart from the \$1.5-billion increase in crude oil imports, the higher U.S. import bill was due to the highest on record imports of food, feeds, and beverages, and the highest on record non-petroleum imports.

Other highlights in overall international trade of the U.S. last month include the highest imports on record from China, from Mexico, and from the European Union. In exports, U.S. October exports to China were the highest since December 2013, exports to Mexico were the highest since October 2014, and exports to Brazil were the highest since October 2014. The goods deficit with China increased from \$34.6 billion in September to \$35.2 billion in October. U.S. exports to China increased \$2.2 billion to \$13.0 billion, primarily driven by soybeans and crude oil. The U.S. trade deficit with Canada increased from \$300 million in September to \$1.8 billion in October, with U.S. imports rising \$1.4 billion--primarily crude oil--to \$25.8 billion.



# Brent oil price at \$63.43 for week beginning Dec. 4

Anadolu Agency, 22.11.2017



International benchmark Brent crude traded at \$63.07 per barrel at 06.48 GMT on.

American benchmark West Texas Intermediate (WTI) reached \$57.67 barrel at the same time. The expectations that OPEC producers and Russia would extend their production cut agreement beyond March 2018 have positively affected crude oil prices over the past two weeks. Last Wednesday, the U.S. Energy Information Administration said crude oil inventories and production in the U.S. increased last week. Meanwhile, the number of oil rigs in the U.S. remained unchanged at 739 last week.

With no change in the oil rig count data, crude oil prices this week showed a small increase.

# Second wave of US LNG to be based on 'free' gas: NextDecade Corp

Anadolu Agency, 23.11.2017



World's top oil exporters are some of the world's most The 'second wave' of US LNG production is coming in the early 2020s and will be based on essentially free gas, according to project developers NextDecade Corp.

Speaking at the CWC LNG Summit in Lisbon Thursday, NextDecade CEO Kathleen Eisbrenner said her company had "the lowest cost, reliable LNG project in the world," and that it would be "the leader of the second wave of US LNG." That US LNG can be the world's lowest cost is a big claim, especially when set against the riches of Qatar's North Field and Iran's geologically connected South Pars.



This giant gas accumulation produces large quantities of natural gas liquids (NGLs), which effectively underpins the production of LNG with large economies of scale. However, similar claims are being made by NextDecade about US LNG, as well as by another US second wave development company Tellurian. The basic argument is that gas output from the Permian basin, the US shale oil industry's hottest hot spot, is going to rise hugely, not because it is necessarily wanted, but because it will be produced as associated gas alongside the oil.

According to Eisbrenner, drilling and completion spending in the Permian basin will double year-on-year in 2018 to make up 44% of all US D&C spending, up from just 20% in 2014. The gas produced cannot be reinjected, and it cannot be flared for more than very short periods. It must, therefore, be evacuated. Producers will pay for it to be taken away. Eisbrenner said that gas production in the Permian Midland would have a breakeven cost of negative \$6.31/MMBtu. She estimated breakeven for gas production in the Permian Delaware at negative \$2.69/MMBtu. Whether or not these calculations really stand up to scrutiny, the prospect of big increases in Permian basin gas production has prompted a plethora of new pipeline proposals to take that gas to a market or a point where markets can be accessed. Four projects, with total capacity of 6.4 Bcf/d, have been proposed between Waha and Agua Dulce on the Gulf Coast, but the gas will still need to be used and, most likely, liquefied for export.

Eisbrenner is promoting Rio Grande, a huge 27 million mt/year LNG development near Brownsville based on six 4.5 million mt/year LNG trains. She says that, if the company builds two trains, costs will be \$500/mt. If three trains are approved, costs would fall to \$450/mt. Process optimization using well proven, reliable technology will ensure both lowest cost capital and operational expenditure, in a location that carries much less geopolitical risk than either Iran or Qatar, she said.



### **Announcements & Reports**

#### A Structural Model of the World Oil Market

Source : OIES

Weblink : https://www.oxfordenergy.org/wpcms/wp-content/uploads/2017/12/A-Structural-Model-of-the-World-Oil-Market-Insight-23.pdf

### 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**

### International Conference on Energy Engineering & Oil Reserves

Date: 08 December 2017

Place : Hong Kong

Website : https://www.waset.org/conference/2017/12/hong-kong/ICEEOR/home

### Iraq Oil & Gas Show

Date: 08 December 2017

Place : Basrah, Iraq
Website : http://basraoilgas.com/

#### North Africa Oil & Gas Summit

Date: 25 January 2018

Place : Milan, Italy

Website : https://www.infield.com/exhibitions/north-africa-oil-gas-summit



### European Gas Conference 2018

Date : 29 January 2018
Place : Vienna, Austria

Website : https://www.europeangas-conference.com/

#### Cameroon Oil & Gas Summit 2018

Date : 02 February 2018Place : Yaounde, CameroonWebsite : https://www.cameroonsummit.com/

### Egypt Petroleum Show

Date : 12 February 2018Place : Cairo, EgyptWebsite : http://www.egyps.com/

### North Africa Petroleum Exhibition & Conference

Date : 03 March 2018 Place : Oran, Algeria

**Website**: www.napec-dz.com/NewDefault.aspx?lg=en

#### Kuwait Oil & Gas Summit

Date : 16 April 2018
Place : Kuwait City
Website : www.cwckuwait.com/

#### International Conference on Petroleum & Petrochemical Economics

Date : 26 April 2018
Place : Istanbul, Turkey

Website : www.waset.org/conference/2018/04/istanbul/ICPPE