

## Turkey will protect its energy rights in Mediterranean

Anadolu Agency, 13.02.2018



Turkey will not allow its energy rights to be breached in the Mediterranean in the aftermath of the Greek Cypriot Administration's launch of "unilateral" hydrocarbon-related activities in the Eastern Mediterranean, Turkey's Energy and Natural Resources Minister Berat Albayrak said.

Speaking at the Ministry's 2017 Performance and Success Awards Ceremony in Ankara, Albayrak said that Turkey has become more active in its Mediterranean policy and energy politics. "Turkey will not allow anyone to breach its rights based on international law," Albayrak said.

He was adding that Turkey will also not allow the rights of the citizens of the Turkish Republic of Northern Cyprus (TRNC) to be ignored. Turkey is acting with transparency in the Mediterranean region, and will continue to apply its rights to the maximum based on international law, he said. On Tuesday, President Recep Tayyip Erdogan described the recent natural gas exploration activities of Greek Cypriots as "opportunistic attempts" in the Mediterranean Sea. "We suggest the foreign companies conducting activities [oil and gas exploration] around Cyprus not be used as an instrument for any works which exceed their limits and powers by trusting the Greek side," he warned. Cyprus has been divided since 1974 when a Greek Cypriot coup was followed by violence against the island's Turks, and Ankara's intervention as a guarantor power. It has seen an on-and-off peace process in recent years, including the latest initiative in Switzerland under the auspices of guarantor countries Turkey, Greece and the U.K. collapsing in 2017.

Turkey blames Greek Cypriot intransigence for the talks' failure, also faulting the European Union for admitting Cyprus as a divided island into the union in 2004 after Greek Cypriot voters rejected a peace deal.

# Turk Stream on track with 48% completion

Anadolu Agency, 08.02.2018



The construction of both lines of the TurkStream natural gas pipeline project is 48 percent completed, according to construction company South Stream Transport B.V. on Monday.

Gazprom's subsidiary, Amsterdam-based South Stream Transport B.V. said on Feb. 19 that installation of the first line of the TurkStream gas pipeline from the construction vessel, the Pioneering Spirit, passed the 660 kilometer point in the Black Sea near the border of Bulgaria's Exclusive Economic Zone.

According to the statement, the previously laid section of the pipeline's offshore route is located in the pipe-laying corridor approved earlier for the South Stream gas pipeline. "At the moment, Pioneering Spirit continues pipe lay along the new section of the route developed for TurkStream towards the Kiyikoy settlement in accordance with the permits obtained from Turkey," it said and noted that in total, 884 kilometers of both lines have been installed, representing about 48 percent of the offshore section of the pipeline. The calculations showed that more than 70 percent of the Turkish part, also referred as the first line, of the project is completed already.

The Pioneering Spirit, the world's largest construction vessel owned by Allseas, continues to work on the construction of the two offshore pipelines. The first line of the TurkStream natural gas project will reach the Turkish shore in May of this year and will start pumping gas at the end of 2019. The TurkStream project consists of two lines, the first of which will serve Turkey with a capacity of 15.75 billion cubic meters, while the second line is planned to serve Europe. South Stream Transport B.V. is responsible for the construction of the gas pipeline's offshore section.

# Turkey yet to issue Gazprom permit for Turk Stream land pipeline

Reuters, 20.02.2018



Turkey has yet to issue a permit for Russia's Gazprom (GAZP.MM) to start building the land-based part of the TurkStream gas pipeline, three sources familiar with the matter said, stoking fears the strategically important project will be delayed.

If completed, the 7 billion euro (\$8.6 billion) pipeline would allow Russia to reduce its reliance on Ukraine as a transit route for its gas supplies to Europe. Ankara has authorized Gazprom, which has a de facto monopoly on Russian gas exports by pipeline, to start building two undersea sections of the project.

However, it has still not given Gazprom the green light for the land-based segment to ship Russian gas onward to southern Europe, the sources told Reuters. "There is no permission from Turkey, which hampers talks about building the second line to Europe," one of the sources familiar with the talks said. Relations between Moscow and Kiev have been badly strained by Russia's 2014 annexation of Crimea and a pro-Moscow insurgency in eastern Ukraine. Even before this, the countries had a series of disputes over gas prices, with the Kremlin accusing Ukraine of diverting supplies to domestic consumers that were supposed to transit to European Union countries. Russia therefore wants to ship gas by alternative transit routes as much and soon as possible. It is planning to boost capacity of an existing undersea pipeline to Germany, a project known as Nord Stream 2, which together with TurkStream would remove the need to send any gas via Ukraine.

Any serious delay to TurkStream, a project promoted by President Vladimir Putin, could deepen doubts among some Western analysts that it will ever be built in its current form. TurkStream is designed to deliver more supplies to Turkey, the biggest buyer of Russian gas after Germany. More significantly for Moscow, it is also designed to extend across Turkey to the borders of southern Europe, thus opening up a new transit route for Russian gas. Gazprom, which did not respond to a written request for comment, wants to complete the pipeline's construction in 2019 so time is of the essence. A second source said the permit problem might be related to talks between Gazprom and Turkish state company Botas about a possible discount for Russian gas. "It looks like Gazprom will have to give in (to Botas)," the source said.

A third source in the Turkish energy industry told Reuters that Botas and Gazprom had yet to set up a joint venture they were meant to form for the land-based part of TurkStream. This was why a construction permit had not yet been issued, the source added. Botas and the Turkish Energy Ministry declined to comment. Gazprom has already started laying the undersea TurkStream lines, to Turkey and southern Europe respectively, beneath the Black Sea. The pipes, with a combined capacity of 31.5 billion cubic meters (bcm) per year, have yet to reach land.

On Monday, TurkStream's operating company said Gazprom had already built 884 km (550 miles) of the two lines, almost half the pipeline's entire subsea portion. Gazprom already supplies gas to Samsun on Turkey's Black Sea coast via an underwater pipeline called Blue Stream with a capacity of 16 bcm per year. TurkStream's birth has been troubled. Gazprom was forced to abandon plans for a total of four TurkStream lines after failing to agree on an entry point into southern Europe.

Talks between Moscow and Ankara about the project were also suspended in October 2015 after the Turkish military downed a Russian warplane near the Turkish-Syrian border. Putin and his Turkish counterpart Tayyip Erdogan eventually mended their relations and agreed to revive trade ties a year later. Russia and Turkey have since begun to cooperate with Iran on trying to find a solution to the Syrian crisis. Putin and Erdogan are in regular contact on this and other issues.

## Israel-Egypt \$15 billion gas deal boosts energy hub prospects

Bloomberg, 20.02.2018



**\$15 billion deal to export Israeli gas to Egypt is moving forward after months of talks, bringing the Jewish state a step closer to becoming an energy exporter to the most populous Arab country.**

**Noble Energy Inc. and Delek Drilling-LP said they plan to supply around 64 billion cubic meters of natural gas over 10 years to Egypt's Dolphinus Holdings Ltd. from Israel's Tamar and Leviathan reservoirs. Shares of Israeli gas companies soared the most in nine years on Monday. The deal needs regulatory and government approvals in Egypt and Israel.**

The move could add an economic plum to a relationship that has focused on security since the two countries signed a peace accord that changed the face of Middle Eastern politics nearly four decades ago. Tavy Rosner, an analyst at London-based Barclays Plc, said he expects more agreements to follow, including the sale of Israeli gas to Royal Dutch Shell Plc, which operates a liquefied natural gas plant in northern Egypt.

The deal with Egypt follows an agreement with Jordan in 2016. Egypt, for its part, is trying to leverage the discovery of the giant Zohr field to attract investment and foreign currency. Egypt has idle liquefaction plants such as Shell's, making it a suitable location for a regional hub. "This paves the way for further deals and cements Egypt as a regional energy hub," Yossi Abu, Delek Drilling's chief executive officer, said in a phone interview. "This will be an engine for both the Egyptian and Israeli economies alike. We're proud to be part of this moment." Questions remain, including how Noble and Delek will transmit the gas to Egypt in a region rife with security risks. Egypt used to supply Israel with gas but the pipeline was sabotaged repeatedly by Islamist militants in the Sinai Desert.

Cairo had frozen talks on a gas deal after an international arbitration court ruled Egyptian companies must compensate Israeli electricity providers for that past deal. EMG, which operates the pipeline that used to bring Egyptian gas to Israel, also is seeking damages. Egyptian Petroleum Minister Tarek El Molla told CBC television Monday night that the arbitration must be resolved before the deal can go through, without elaborating. Executives at Dolphinus couldn't immediately be reached for comment. Egypt's Petroleum Ministry said it will take decisions that help it achieve its goal of becoming a regional gas hub, and that Egypt is keen to settle any disputes.

The Egyptian statement didn't mention Israel, reflecting sensitivities in a country where many still resent the Jewish state over past wars and its ongoing conflict with the Palestinians. Molla, in his comments to CBC, said Egypt was right to import gas "from Cyprus or from anywhere else" in its quest to become a regional energy hub. Israeli Prime Minister Benjamin Netanyahu called it a "joyous day," lauding the deal's potential to "put billions into the state treasury to benefit the education, health and social welfare of Israel's citizens."

The area from Cyprus to Lebanon and Egypt may contain additional gas riches, and countries in the region are eager to develop export plans. The United States Geological Survey estimates the area could hold more than 340 trillion cubic feet of gas, more than U.S. proven reserves. The emerging wealth is also threatening to spark conflict. Israel and Lebanon have traded threats in recent weeks as the two countries disagree about where their border should be. It's not clear how the new deal fits into Egypt's plans to export gas from its giant Zohr field. Italy's Eni aims to pump 2.7 billion cubic feet of gas per day from Zohr by end-2019. Delek has said that even at full production Zohr won't be able to keep up with rising demand.

## Iraqi oil minister to visit Turkey, discuss resumption of oil exports

Daily Sabah, 19.02.2018



Iraqi Oil Minister Jabar al-Luaibi will visit Turkey at the end of the week to meet Energy and Natural Resources Minister Berat Albayrak and discuss the resumption of oil exports through Turkey's Ceyhan port, the Iraqi oil ministry said in a statement yesterday.

Oil exports from Iraq's north have been halted since Iraqi forces took control of the Bai Hasan and Avana oilfields northwest of Kirkuk, after Kurdish Peshmerga fighters pulled out from the region. Oil minister Luaibi's visit to Turkey will target reaching an agreement to resume shipping Iraqi crude.

"Exclusively through Iraq's state oil marketer SOMO," said oil ministry spokesman Asim Jihad. Iraqi oil officials accuse Kurdish authorities of not responding to requests made by the oil ministry to use the Kurdish pipeline to resume exports from Kirkuk. The Kurdish region operates a pipeline that connects to the twin Kirkuk-Ceyhan pipeline at Khabur on the border with Turkey.

Iraq plans to build a new export pipeline from the Kirkuk oilfields which will replace an old and severely damaged section of the Kirkuk-Ceyhan pipeline. It will start from oilfields near Kirkuk and extend to the Fish-Khabur border area with Turkey. Iraq is the second-largest crude oil producer in the Organization of the Petroleum Exporting Countries (OPEC) after Saudi Arabia, and holds the world's fifth-largest proven crude oil reserves after Venezuela, Saudi Arabia, Canada and Iran, according to the U.S. Energy Information Administration (EIA).

## **Kurdish Reg. Gov. pays \$54.73M for Tawke field oil ops.**

*Anadolu Agency, 15.02.2018*



Tawke field partners in the Kurdish Regional Government received \$54.73 million for November 2017 crude oil deliveries, Norway's DNO announced Thursday.

According to field partner DNO, the funds will be shared pro-rata by DNO and partner Genel Energy. DNO said that separately, a payment of \$4.70 million from the Kurdish Regional Government had been received net to DNO, representing 3% of gross Tawke license revenues for November 2017, as per the recent receivables settlement agreement. DNO operates and has a 75% interest in license.

## **TRNC has rights on all blocks around Cyprus Island**

*Anadolu Agency, 20.02.2018*



The citizens of Turkish Republic of Northern Cyprus have rights on all the oil and gas blocks around the Cyprus Island, TRNC's Economy and Energy Minister told.

Ozdil Nami said that as Turkish Cypriots have just as many rights as Greek Cypriots on oil and gas reserves around the island, the issue of economically developing these resources should be discussed with consideration for the interests of both sides. Nami underlined that the Greek Cypriots have turned a deaf ear to the calls of the Turkish Cypriots and have taken unilateral steps in exploration while taking advantage of their political status by some countries.

The Greek Cyprios administration signed agreements with international oil and gas companies purely based on their own interests and without any cooperation or consultation with the TRNC, Nami explained. “Turkish Cypriots have rights in all of these blocks. It does not matter whether these blocks are in the north, south, east or west of the island. Turkish Cypriot citizens have rights and interests in all of these,” he said. TRNC is conducting activities on some blocks, which come under the agreement reached with Turkey, Nami said, adding that the Greek Cypriots are also conducting exploration activities under agreements reached with international companies.

“What we said to the Greek side is ‘Let’s move in a cooperative way in all these blocks.’ However, the Greek side continues to act unilaterally without opening any door for cooperation neither in block 3 nor in the others, and this is why we react,” he said. Block 3 is contentious as it is very close, at a distance of five miles, to the Turkish Cypriot region where TRNC is conducting exploration with Turkish Petroleum, he said. “But when we look at the core issue, it does not matter how far the blocks are or not. We have to protect Turkish Cypriot citizens’ rights,” he asserted.

Nami said efforts continue at various levels to counteract the growing tension in the region between the two sides. The Turkish side will continue to protect its rights based on international law while trying not to increase this tension in the region at the same time, Nami asserted. “Neither TRNC nor Turkey is the side who triggers the tension,” Nami said, adding that the Turkish side has only taken steps when the Greek side continued to engage in unilateral natural gas exploration activities. “However, our patience does not mean that we will remain unresponsive forever,” he warned. Cyprus has been divided since 1974 when a Greek Cypriot coup was followed by violence against the island’s Turks, and Ankara’s intervention as a guarantor power. It has seen an on-and-off peace process in recent years, including the latest initiative in Switzerland under the auspices of guarantor countries Turkey, Greece and the U.K. collapsing in 2017. Turkey blames Greek Cypriot intransigence for the talks’ failure, also faulting the European Union for admitting Cyprus as a divided island into the union in 2004 after Greek Cypriot voters rejected a peace deal.

## Russians, Saudis may go beyond oil alliance with LNG project

Bloomberg, 14.02.2018



Russia and Saudi Arabia are seeking ways to amplify the success they’ve had working together to manage the oil market by reaching new energy deals, including one on liquefied natural gas.

Signing a memorandum, Russian gas producer Novatek PJSC and Saudi oil giant Aramco agreed to consider teaming up on Novatek’s Arctic LNG-2 project, Alexander Novak told reporters in Sochi on Thursday. Specifics may be prepared ahead of the St. Petersburg International Economic Forum in May, he said. President Vladimir Putin made a priority of expanding Russia’s LNG industry last year.

The country is seeking partners for projects to catch up with top producers Qatar and Australia. Meanwhile, Saudi Arabia is looking from Russia to East Africa and the U.S. for gas assets as state-held Aramco, known formally as Saudi Arabian Oil Co., hunts for ways to meet soaring domestic demand. Aramco is “seriously” studying investing in the planned Arctic LNG plant, Saudi Energy Minister Khalid Al-Falih told reporters Wednesday in Riyadh at a joint briefing with his Russian counterpart. Saudi King Salman is keen to strengthen energy ties between the two nations following their oil-cuts collaboration that helped drive crude’s recovery, according to Al-Falih. The \$20 billion Arctic LNG-2 plant, seen starting in 2022 or 2023, will be Novatek’s second liquefied-gas project after Yamal LNG, which began output late last year. The Russian company is also interested in building a regasification terminal in Saudi Arabia, Novak said in Sochi.

Saudi Arabia is seeking to double its own gas production in the next decade, Al-Falih said in Riyadh. In an interview in December, he didn’t rule out buying LNG from Russia but said it wasn’t the most economical option. Possible LNG deliveries to Saudi Arabia from Russia aren’t linked to Aramco’s potential participation in the Arctic project, Novak said. Other projects on the table, according to the ministers: Russia has made a formal proposal to build two nuclear reactors in Saudi Arabia, according to Novak; Al-Falih said his country plans to award contracts next year. The two nations are continuing talks on a rubber project in Saudi Arabia led by Aramco and Russia’s Sibur PJSC, with estimated costs of about \$1 billion; Novak said France’s Total SA and the state-run Russian Direct Investment Fund may also participate. Saudi Arabia will work with Russia on climate policies, according to Al-Falih.

## Russia, Norway set record gas exports to Europe in 2017

Anadolu Agency, 14.02.2018



Natural gas exports to Europe from both Russia and Norway reached record levels in 2017, independent oil and gas consulting services Rystad Energy announced.

In 2017, Russian exports to Europe, including Turkey, reached 194 billion cubic meters (bcm) while Norway’s exports to Europe amounted to 122 bcm, according to an analysis carried out by Rystad Energy. In accordance with the analysis, Russia’s natural gas exports increased to 194 bcm with more than 15 bcm year-on-year, while Norway increased its exports by 9 bcm, reaching 122 bcm.



“The higher exports have provided reliable supply for Europe and give an indication that the strategy followed by both Russia and Norway has been to maintain their market share, benefiting European consumers as prices in northwest Europe have remained rather stable. This has also kept new U.S. supplies of LNG out of the region, enabling American gas to meet increasing demand in Asia and Latin America, Carlos Torres-Diaz, Rystad Energy’s vice president of gas markets, was quoted as saying. While both countries showed upward output trends since 2014, the company, headquartered in Oslo, projects that Russia will further strengthen its dominant position, while Norwegian output is poised to decline in the coming years.

In terms of Russia’s gas production, Torres-Diaz commented that with the ramp-up and expansion of the Yamal LNG plant and the completion of the Power of Siberia pipeline, exports to Asia are expected to increase. Moreover, he highlighted that the increased production, coupled with the continuation of Gazprom’s Nord Stream-II and TurkStream pipeline projects, leaves large potential for even higher exports to Russia’s main market, Europe.

In addition, the company expects a decline by 10 bcm by 2020 for annual output from several key gas fields in Norway, compared to 2017 levels. However, this will only be partially offset by the 8.6 bcm increase in projected annual gas output in the same period from the startup of the Aasta Hansteen field, located 300 kilometers from land, northwest of Sandnessjoen in Nordland county in Norway. Similarly, production in other European countries is expected to continue to decline. Rystad Energy is an independent oil and gas consultancy and business intelligence data firm offering global databases, strategy consulting and research products.

## Russian Novatek signs gas agreement with Saudi Aramco

Anadolu Agency, 19.02.2018



A memorandum of understanding (MOU) for international collaboration on natural gas projects was signed between Russia’s Novatek and Saudi Aramco, the Saudi Arabian national oil company.

The company said that the parties agreed to work on natural gas projects, including LNG supplies, the development of LNG markets, gas exploration and production projects, as well as research and technology development. Novatek’s Chairman Mikhelson said the company sees a wide array of exciting and mutually beneficial energy opportunities.

“Our company owns one of the world’s largest high-quality, low-cost conventional gas reserves base and has gained unique and valuable experience of developing LNG-projects in the Russian Arctic area. Novatek’s strategy envisages rapidly growing our LNG production and attracting international partners, and, accordingly, we welcome the interest of such a globally important company as Saudi Aramco to jointly collaborate with us in gas markets,” he noted.

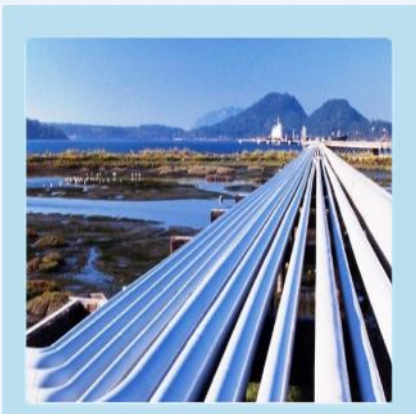
According to the U.S. Energy Information Administration, the Saudi government plans to monetize its vast natural gas reserves as it expands its petrochemical sector and natural gas-fired electric power generation. Saudi Arabia had proved natural gas reserves of 303 trillion cubic feet as of Jan. 1, 2017, the fourth-largest in the world behind Russia, Iran, and Qatar.

Most of the natural gas fields in Saudi Arabia are associated with petroleum deposits or are found in the same wells as crude oil. Increased production of this type of natural gas remains linked to an increase in oil production. Novatek is one of the largest independent natural gas producers in Russia. Founded in 1994, the company is engaged in the exploration, production, processing and marketing of natural gas and liquid hydrocarbons.

The company's upstream activities are concentrated mainly in the prolific Yamal-Nenets Autonomous Region, which is the world's largest natural gas producing area and accounts for approximately 80 percent of Russia's natural gas production and approximately 16 percent of the world's gas production.

## Georgia to purchase natural gas only from Azerbaijan

Oil & Price, 20.02.2018



In January, the Georgian Ministry of Economy and Sustainable Development approved its annual energy assessment (balance), which shows that Georgia will not purchase any natural gas from Russia this year.

Instead, 99.65 percent of the 2.689 billion cubic meters (bcm) of gas Georgia will consume in 2018 will be provided by Azerbaijan. From this amount, 1.866 bcm will be produced by Azerbaijan's State Oil Company (SOCAR) and 813 million cubic meters will come from the development of the offshore Shah Deniz field. This gas market news represents the continued shifts in Georgian energy politics.

Which began several years ago. Specifically, a little over a year ago, Georgia and Russia signed a new energy deal that followed months of political controversy and bilateral negotiations. According to the old energy agreement, Moscow paid Tbilisi an in-kind transit fee of 10 percent of all the natural gas that passed from Russia to Armenia via Georgia. Russia wanted to renegotiate this deal and switch from the commodity scheme to monetary payments. But such a change would potentially not be beneficial for Georgia, as monetary payments are vulnerable to price fluctuations and currency devaluations. Eventually, Moscow and Tbilisi finalized a new agreement in January 2017.



According to this two-year agreement, Russia would continue paying according to the existing commodity scheme during 2017. As of 2018, however, it would switch to monetary payments. Moreover, if Georgia needed additional gas, Russia would sell it to Georgia at a discounted rate of \$185 per thousand cubic meters, instead of the previous price of \$215 (Panarmenian.net, January 14, 2017).

The Georgian government hailed the new agreement as highly favorable (and affordable) for Georgia. However, the government never revealed what percentage of natural gas Georgia would receive as a transit fee according to the commodity scheme in 2017 and how much Moscow would pay after switching to monetary payments in 2018 (see EDM, January 19, 2017).

The ongoing Russian-Georgian negotiations made Baku nervous, which feared that Gazprom's possible return to the Georgian energy market, in any form or scale, would gradually squeeze out SOCAR. Officials in Tbilisi explained the talks with Moscow by repeatedly stating Georgia needed additional natural gas supplies to meet increased demand. But Azerbaijani officials adamantly reiterated that Baku had all the natural gas that Georgia needed to import. These negotiations also sparked domestic concerns in Georgia that Russia—which on multiple occasions proved to be an unreliable energy supplier (not to mention the fact that Russia currently occupies 20 percent of Georgian territory)—would somehow manage to expand its market share in Georgia and nullify the South Caucasus country's hard-won energy independence from Moscow.

Ultimately, the January 2017 deal did not really allow Gazprom to expand in Georgia; however, the agreement still proved a partial win for the Kremlin, as Russia was able to switch its transit fees from the commodity scheme to monetary payments—the arrangement it initially preferred. Azerbaijan ended up being the biggest winner, however, capturing almost 100 percent of Georgia's natural gas market. Georgia, meanwhile, has arguably emerged as the deal's biggest loser: its government negotiated another poor deal, largely continuing the trend of successive Georgian governments reaching unfavorable agreements with foreign governments. First, instead of the highly desirable commodity scheme, Georgia now will be paid in cash for transit fees of Russian gas. Second, it now finds itself nearly entirely dependent on Azerbaijani natural gas.

Needless to say, Azerbaijan proved to be a reliable energy supplier to Georgia for many years, as the two countries enjoy close political and economic ties. However, near 100 percent reliance on another country's natural gas supplies is still a potential national security threat and cannot be considered a prudent political or economic arrangement. Moreover, the incomplete delimitation of the Georgian-Azerbaijani border remains a long neglected, yet possibly inflammable issue, which will need to be addressed and taken into account when reaching any vital future economic arrangements by the two neighbors, especially in the energy sector. For instance, in May 2012, during then-president Mikheil Saakashvili's rule, Azerbaijani border guards took over part of the historic disputed David Gareja Monastery (specifically, Udabno Monastery) on the Georgian-Azerbaijani border and would not allow pilgrims on the territory (Dfwatch.net, May 18, 2012). Although, the government-controlled Georgian media tried its best to sugarcoat the incident, the news still spread and alarmed the Georgian public.

On the positive side, the new energy arrangements may finally push Georgia toward new opportunities. Specifically, its energy policy could now be directed toward developing renewable energy sources, which can gradually make traditional hydrocarbons obsolete in Georgia and cement the country's full energy security and self-reliance for generations. Georgia has massive potential in this regard in wind, solar and hydropower. In fact, in October 2016, Georgia opened its first wind power plant called "Qartli" and introduced the first solar panels in the mountainous northeastern district of Dusheti (Georgianjournal.ge, October 7, 2016, July 15, 2016). The power these have generated has been vital for local businesses. If the Georgian government shows enough creativity to move the country further in this direction, Georgia's energy dependence on foreign countries may become a distant memory in the foreseeable future. But whether Tbilisi actually manages to do so, remains an open question.

## Sabine Pass LNG export facility after discovering 10-year history of leaks

Desmogblog, 18.02.2018



Sabine Pass, for now the only liquefied natural gas (LNG) export facility in the country, has reportedly been experiencing safety issues for the past decade, and yet federal safety officials were only informed of this history while investigating the terminal's latest leak in January. Owned by Cheniere Energy, Sabine Pass is located on the Gulf Coast on the border of Texas and Louisiana.

Regulators became aware of the export facility's issues after the most recent accident and leak at an LNG storage tank. As NOLA.com reported:

"Supercold liquefied natural gas leaked into a space between inner and outer walls of a major storage tank at the Sabine Pass LNG export facility in Cameron Parish on Jan. 22, and its minus 260-degree temperature created numerous 1-foot to 6-foot cracks in the carbon steel outer tank wall, allowing some of the gas to escape." As a result of this recent leak, Alan Mayberry, associate administrator for the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) sent a Corrective Action Order to Cheniere. The contents of this communication were not encouraging: "To date, Sabine has been unable to correct the long-standing safety concerns described above involving the affected tanks, cannot validate the exact source or amount of the LNG that may have leaked into the annulus of the affected tanks, and cannot identify the circumstances that allowed the LNG to escape containment in the first place."



According to PHMSA, the operators of the Sabine Pass facility don't know how much LNG has leaked, don't know how it happened, and can't fix the problem, which seems like reasons for concern, especially considering problems with this and another tank began in 2008: "After initiating its investigation, PHMSA received from Sabine a copy of a prior investigative report that Sabine commissioned from Matrix and received in March 2017. That report documented 11 past upsets (dating from 2008-2016)."

In addition to just becoming aware of these decade-old issues, PHMSA noted that while the Sabine facility had documented the problems, no one appeared to know how or why they were occurring. As a result, PHMSA's corrective order instructs Cheniere to shut down the at-risk facilities:

"After evaluating the foregoing preliminary findings of fact and considering the ongoing investigation of the incident, I find that the continued operation of the affected tanks without corrective measures is or would be hazardous to life, property and the environment."

#### Energy Exports Breaking Records, Increasing Risks

The oil and gas industry has a history of moving faster than regulation when there is big money to be made. This often leads to the "hindsight" approach to safety, in which a loosely regulated industry waits until something goes wrong and then figures out how to deal with the problem.

Recent examples include the sinking of the Sanchi — an oil tanker full of light petroleum condensate which the industry doesn't know how to respond to during large marine spills. Or the exploding Bakken oil trains. Or the fact that when cleaning up tar sands oil spills it is important to know the oil is likely eventually going to sink. Or how the industry continues to under-report methane leaks while simultaneously claiming methane emissions are going down. And the export of LNG is no exception. Sabine Pass wasn't even built to export LNG but instead was supposed to be an import facility. However, with the hydraulic fracturing (fracking) boom and the glut of gas in the U.S., Sabine Pass was converted into an export facility.

The U.S. Energy Information Administration predicts a massive expansion of LNG exports, with 10 more export terminals approved in the U.S., at a time when it is clear that safety officials have been unable to adequately inspect and regulate the existing facilities. An increase in leaks and accidents like the most recent one at Sabine pass should be expected to accompany the rise in facilities. "This incident is a reminder that the expansion of LNG projects poses a grave threat to our communities and our climate," said Nathan Matthews, a lawyer for the Sierra Club. "It's a relief that no one was hurt, but allowing the facility to continue to operate until it's clear how widespread these issues are would be extremely reckless."

One of the "issues" with the Sabine Pass facility was noted in an article in the trade publication LNG World Shipping, which pointed out that Sabine Pass does not have "full containment tanks" like those at the other LNG export facility Cheniere is currently building. This design might have prevented the type of leak Sabine Pass recently experienced. "Cheniere itself has opted for full containment tanks for Corpus Christi LNG, its greenfield export terminal now being built in Texas. With full containment tanks both the inner and outer shells are capable of holding LNG." In a full containment design, the exterior tank can also withstand LNG's extreme cold temperatures, unlike the steel tanks at Sabine Pass which cracked during this latest incident. Federal regulatory agencies have been targeted by the Trump administration, which has taken a decidedly deregulatory approach to governing.



For example, in Trump's first year, the U.S. Environmental Protection Agency collected "49 percent less in civil penalties against violators of federal environmental laws" than the previous three administrations did in the same time period. From a safety and public health standpoint, this is not an ideal environment to be massively ramping up oil and gas production and exports. But thanks to the influence of the oil and gas industry, PHMSA was in trouble long before Trump was elected.

Rep. Jackie Speiers (D-CA) has been a critic of PHMSA for years ever since a gas pipeline exploded in her district and killed eight people. "The system is fundamentally broken," Speiers has said. She has also called "PHMSA ... a toothless kitten, a fluffy industry pet that frightens absolutely no one." And that was before Trump was in charge. A December 2017 Government Accountability Office (GAO) audit of PHMSA found that the agency's oversight of natural gas storage facilities was lacking in fundamental ways. These conclusions are outlined in the report "Natural Gas Storage: Department of Transportation Could Take Additional Steps to Improve Safety Enforcement Planning."

The GAO specifically reviewed PHMSA's performance-based goals and noted serious flaws, including that "PHMSA's goal focuses on training and does not address other core program activities, such as conducting effective inspections." Without effective inspections, it is difficult to argue that a regulatory agency can be more than a "fluffy industry pet." PHMSA is part of the Department of Transportation, which also houses the Federal Railroad Administration (FRA). Unfortunately, the FRA currently has no one in charge because even the interim person appointed by Trump had to resign and may be facing criminal charges.

And performing inspections requires having an adequate operating budget to hire and train inspectors. In July 2017, Dr. Rachel A. Meidl, deputy associate administrator in the Office of Hazardous Materials Safety at PHMSA, spoke about the expected budget issues at an industry gathering. PHMSA is already "operating in a difficult and challenging environment right now, with the demands continuing to grow," Meidl said. "There are so many new energy sources ... the scope of our work continues to grow. That's a little bit of a challenge, considering the new administration and some of the budget shortfalls we have right now." "So many new energy sources." A regulatory system already struggling to maintain oversight of the oil and gas industry. And an administration intent on further dismantling the regulatory system. Unfortunately, this sounds like a recipe for future accidents.

## BP CEO says to invest \$1 billion in Egypt this year, not owed Money

Reuters, 13.02.2018



BP is looking to invest over \$1 billion in Egypt this year, making the country once again a top destination for investment, its CEO said.

Speaking at an industry event in Egypt, Bob Dudley said the company was no longer owed any money by the Egyptian government. "The government owes us no money," he said on the sidelines of the conference. Cairo has pledged to eliminate arrears owed to foreign oil companies by the end of June 2019 and not to accumulate more, part of its drive to draw new foreign investment to an energy sector.

Dudley also said he did not see a supply shock before the end of this decade or beyond and that BP was planning for oil prices within the range of \$50 to \$65 per barrel for the rest of the decade. "We're planning this year \$55 a barrel today for 2018 even though we're a little above that and we might be a little above that throughout the year," he said.

## Austrian OMV's operating profit rises by 67% in 4Q17

Anadolu Agency, 20.02.2018



Austrian oil and gas group OMV's adjusted operating profit increased by 67 percent in the fourth quarter of 2017 compared to the same period of 2016, the company said on Wednesday.

Its profit of around €688 million in the last quarter of 2017 was mainly driven by higher realized oil and gas prices and sales volumes in Libya and Norway, the company said. The company predicts that the average Brent oil price will be \$60 per barrel in 2018. OMV also noted that it would continue to finance the Nord Stream 2 pipeline subject to progress with the project financing from capital markets.

The project aims to carry Russian natural gas to Europe through the Baltic Sea with a capacity of 55 billion cubic meters per year. OMV is one of the partners in the project in conjunction with Gazprom, Engie, Shell Uniper and Wintershall.

## Norway's oil production for January below forecast

ArabNews, 09.02.2018



Norway's January oil output saw an 89,000 barrel-per-day increase compared to December, according to official figures from the Norwegian Petroleum Directorate (NPD) on Wednesday.

Norway's preliminary oil production for January was about 1.4 percent below the NPD's forecast for the month. Nonetheless, the country's total gas sales for January saw a monthly increase of 0.2 billion cubic meters and reached 11.3 billion cubic meters compared to December.

The Nordic country's daily production of oil, natural gas liquids and condensate was about 2.01 billion barrels for the month of January.

## Azerbaijan, Bangladesh ink MoU for oil-gas cooperation

Gulf Times, 11.02.2018



A memorandum of understanding (MoU) for cooperation in the new oil and gas projects in Bangladesh was signed between Azerbaijan's SOCAR AQS and Bangladesh Petroleum Exploration and Production Company (BAPEX), SOCAR AQS announced on Tuesday.

According to the company's statement, the MoU, signed in Azerbaijan's capital city of Baku, is an important step towards expanding the future cooperation beyond the drilling of Bangladesh's wells. SOCAR AQS previously won the international tender, announced by BAPEX. Under the agreement, the company will conduct drilling.



Construction of three onshore wells in Bangladesh, two of which will be drilled for exploration and the one remaining will be appraised. “Export of drilling services to Bangladesh will provide auspicious opportunities for Azerbaijani oil industry workers to offer their professional services internationally and generate additional revenues for the national economy,” the statement read. Bangladesh started gas production in 2008 and holds approximately 360 billion cubic meters of gas resources. While Russia’s Gazprom has built 15 exploratory and development wells at seven fields in Bangladesh since 2013, it is expected that Azerbaijan’s oil and gas field explorations will further contribute to the development of the country’s energy sector.

SOCAR AQS is as an integrated drilling and well services management company, which was established by the State Oil Company of Azerbaijan (SOCAR) and Absheron Drilling Company (AQS) in 2007. The company has conducted over 200 thousand meters of drilling works up to now and has delivered 67 wells to its customers. The company is currently drilling four wells in Azerbaijan and plans to drill 18 wells in the Azerbaijani sector of the Caspian Sea in 2018.

## Construction of TAPI project’s Afghanistan leg to start

Anadolu Agency, 21.02.2018



**The construction of the Afghan leg of the Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline project (TAPI) will start on Feb. 23.**

**The TAPI project will pave the way for many positive developments in Afghanistan and the transit income of \$400 million per year will be transferred directly to the Afghan state treasury, the officials said. The country will also be able to supply natural gas from the TAPI project for 30 years. In the first ten years, Afghanistan will supply 500 million cubic meters (mcm) of gas per year from Turkmenistan.**

In the second ten-year period, it will supply 1 billion cubic meters (bcm) of gas per year and in the last ten years, 1.5 bcm of gas will be supplied annually. Afghanistan will be able to produce electricity from power plants in a more sustainable way and will also be able to decrease power shortages in the country, thanks to the natural gas from TAPI pipeline, the officials said. Almost 14 thousand Afghan workers will be employed in the TAPI pipeline, which will help boost employment opportunities in the country, they added.

The \$10-billion TAPI project, slated for completion in 2019, will supply some 33 billion cubic meters of natural gas annually. Pakistan and India will receive over 1.3 billion cubic feet of gas daily from the 1,800-kilometer pipeline, while Afghanistan is set to receive 0.5 billion cubic feet daily. Originating in Turkmenistan’s Dawlatabad region, the pipeline will stretch almost 150 kilometers to Afghanistan. Some 750 kilometers of the pipeline will pass through Afghanistan’s Herat, Farah, Helmand and Kandahar provinces, eventually reaching Pakistan.



# Noble Energy Announces Execution of Gas Sales Agreements for Export of Gas to Egypt

Globenewswire, 19.02.2018



Noble Energy, announced today that it has signed agreements to sell significant quantities of natural gas from the Leviathan and Tamar fields to Dolphinus Holdings Limited to supply gas in Egypt.

These agreements, one for natural gas from Leviathan and one for Tamar, each provide for total contract quantities of 1.15 trillion cubic feet of natural gas. The natural gas is anticipated to supply industrial and petrochemical customers as well as future power generation in Egypt. Sales volumes under the agreement associated with the Leviathan field.

These fields are anticipated to begin at a firm rate of approximately 350 million cubic feet of natural gas per day (MMcf/d) at the startup of the Leviathan project at the end of 2019. For the Tamar agreement, sales volumes are anticipated to begin at an interruptible rate of up to 350 MMcf/d, dependent upon gas availability beyond existing customer obligations in Israel and Jordan. Noble Energy will have an option to convert the Tamar interruptible quantity to a firm-basis with a significant take or pay commitment. Both contracts are for a 10-year term.

Gary W. Willingham, Noble Energy's Executive Vice President, Operations, commented, "These agreements continue to demonstrate the strength of the regional market for our natural gas in the Eastern Mediterranean. At Leviathan, we have executed agreements totaling nearly 900 MMcf/d and are closing in on our targeted sales volume amount of 1 Bcf/d. For Tamar, we now have a contract to sell any excess gas beyond current customer needs in Israel and Jordan to Egypt. The continued progress in regional gas marketing, along with our previously announced divestiture at Tamar, are major deliverables for 2018 and we are accomplishing them very early in the year. This provides even further clarity and confidence in our expected cash flow profile for 2018 and beyond."

The gas price formula is the same under both agreements with linkage to Brent oil prices, similar to our other regional agreements. The Leviathan contract represents expected total gross revenue approaching \$7 billion at recent Brent prices, with Tamar potential revenues up to a similar amount, dependent on actual volumes sold. Both agreements are subject to closing obligations including regulatory approvals and licenses, and finalizing gas transportation agreements. Noble Energy operates the Leviathan and Tamar gas fields with a 39.66 percent working interest and 32.5 percent working interest, respectively. Earlier in 2018, the Company announced a 7.5 percent working interest divestment in the Tamar field which is anticipated to close in the first quarter of 2018, at which time the Company's interest in Tamar will reduce to 25 percent.

## Zohr field to save Egypt \$4bn by end-2019

Daily News, 14.02.2018



The first undersecretary of the Ministry of Petroleum for gas affairs, Mohamed Moanas, expects the giant Zohr gas field will save Egypt \$4bn or more after it enters full production in 2019.

This came on the second day of the 2018 Egypt Petroleum Show which started on Monday 12 February and lasts until 14 February. He explained that when the gas production from the field starts, it will save \$60m for the country per month. Moanas announced that the current production of the Nooros gas field is estimated at 1.2bn cubic feet of natural gas.

It is explaining that it was expected to produce from 350-400m cubic feet per day. "The region has been revived after developing a strategy to detect gas-rich sites, where production by the end of 2014 was almost zero, thus several sites were identified for gas detection, including Nooros," Moanas said. He pointed out that there are expected to be more discoveries during the coming period, which will increase oil production in Egypt, making it achieve self-sufficiency of gas. For his part, Maurizio Coratella, CEO of the Italian company Edison, expects that the company will have more partnerships in the oil sector in the current year, especially in the Mediterranean and Red Sea regions, assuring that he expects to see more oil discoveries in Egypt in the coming period.

"We see that the Egyptian economy is developing within a short period of time. We are witnessing the economic reforms undertaken by the Egyptian government and the huge projects that were implemented in record time," Coratella assured.

On the other hand, senior vice president of the Eastern Mediterranean at Noble Energy, Keith Elliott, said that Egypt is qualified to transform itself into a regional energy hub through its infrastructure of extended gas lines and liquefaction units overlooking the Mediterranean Sea. "There is growth in the Egyptian market and we are trying to be part of the Egyptian market," Elliott said, adding that he thinks Egypt is making significant progress in liberalising its energy market to allow energy producers to enter the local energy sector.

Earlier on the first day of the EGYPS, Minister of Petroleum Tarek El-Molla announced that improving governance, establishing an exploration and production information gate, and improving quality are ministry's priorities. Also on the conference's first day, the secretary general of the Organisation of the Petroleum Exporting Countries, Mohammad Barkindo said that the new discoveries will position Egypt as a global player in the oil and gas industry. Finally, he assured that oil and gas will still contribute to 52% of the global energy mix by 2040.

## Saudi Arabia wants \$70 oil

Oil & Price, 19.02.2018



As the global oil inventory surplus narrows and the goal of the OPEC cuts is within reach, the oil cartel is mulling a change in the way it defines success, with an eye on keeping the current production limits in place at least through to the end of this year.

Although there were a variety of reasons for oil prices rallying at the end of 2017 and hitting multiyear highs a month ago, the overarching reason was that the inventory overhang significantly narrowed, in large part because of the OPEC cuts.

The IEA says that OECD inventories are now only 52 million barrels above the five-year average, a surplus that has shrunk dramatically from 264 million barrels a year ago. “With the surplus having shrunk so dramatically, the success of the output agreement might be close to hand,” the IEA wrote in its February Oil Market Report. Other analysts have gone further. Citigroup and Goldman Sachs both estimate that the surplus has probably already been eliminated, meaning that the oil market has already reached the long-sought “balance” for which OPEC is aiming.

But as success draws near, oil prices are still not where OPEC wants them. The group is considering changing the way it measures “balance” in the market, for several reasons. First, what constitutes the five-year average for inventories has changed significantly, with that period of time increasingly encompassing surplus years. The level of inventories that was “average” for the period of 2011-2015 is substantially lower than the “average” for 2013-2017 — the latter period includes more than three years in which the market suffered from a glut.

In other words, the five-year average inventory level is a moving target, and because it has been rising quite a bit, bringing global inventories down to that threshold is not as impressive as it would be if using an older five-year period. As a result, Saudi oil minister Khalid al-Falih suggested that OPEC would meet to discuss using a different metric. One option would be to use the “forward demand cover,” Bloomberg reports, or the number of days that the current stock of inventories could supply the global market. This would arguably be a more accurate measurement because it would incorporate the fact that demand has climbed significantly in recent years.

That metric would probably work better as a barometer for oil market health, but as Bloomberg notes, by that measure, the oil market is still probably close to, or already at, the rebalancing point. The IEA said that as of December, OECD stocks were equivalent to 60.6 days’ worth of supply, which is back at the five-year average. OPEC will probably need a different metric if it wants to justify keeping the cuts in place. The problem for OPEC — and al-Falih admitted as much — is that the world is only going off of data from the OECD. There isn’t a ton of accurate or transparent data from much of the non-OECD. Citi incorporated several non-OECD nations into its estimate, including Saudi Arabia and Brazil, and it still concluded that inventories are back to the five-year average.

Regardless of the evidence, OPEC hopes to keep the production curbs in place through the rest of the year at least. “If we have to overbalance the market a little bit, then so be it,” al-Falih told reporters last week. “Rather than quitting too early and finding out we were dealing with less reliable information,” he said. It’s better to “stay the course and make sure that inventories are where the industry needs them.”

Much of the motivation for al-Falih is to keep the Saudi Aramco IPO on track. But for that to occur, Saudi officials feel they need oil prices to be closer to \$70 per barrel than \$60. And, crucially, that price level of \$70 needs to be in place in a year or two, not just today. As a result, as Reuters notes, rather than simply looking at spot prices today, Saudi officials are probably watching oil futures dated 1 and 2 years out. “When will the ideal moment come?” an unnamed OPEC official told Reuters. “Maybe you should also look at the forward curve for oil ... as the forward curve will be key for investors valuing Aramco.”

In that sense, the Aramco IPO is, in a way, driving OPEC policy. But because oil futures for March 2019 are just above \$60 per barrel — and 2020 futures are a few dollars lower — Saudi officials are pushing hard to keep the production limits in place for a while longer, hoping to drive up prices. “If you’re Mohammed Bin Salman, and trying to radically reinvent your country” then “you need a certain price to make it work,” said Helima Croft, head of commodity strategy at RBC Capital Markets LLC, according to Bloomberg. As a result, the OPEC cuts could remain in place, regardless of whether or not global inventories are back at the five-year average. Whether or not it is explicitly stated, Saudi officials could be pushing to keep the OPEC limits in place until futures prices rise to \$70.

## India will lead global oil demand by 2035

Oil & Price, 19.02.2018



Oil market participants and analysts watching the record level of supply coming out of the United States that is threatening to undo OPEC’s production cuts. But in the latter part of 2017 and early in 2018, robust oil demand growth both in emerging markets and OECD economies has supported oil prices as much as the cartel’s production restraint.

Traditionally, all eyes have been fixated on China and the pace of its oil demand and imports growth, but lately India has grabbed global attention after its oil imports rose to record highs amid strong economic growth and fuel demand.

Projections of India’s long-term energy and oil consumption are also optimistic, and India is already a major oil demand growth driver. In China, January crude oil imports jumped to a new record of 9.57 million bpd, but forecasts of slower GDP growth are making analysts wary of overly optimistic projections. China’s crude oil demand growth could slow down this year to 4.2 percent from 5.5 percent last year, according to S&P Platts analysts.



In India, high refinery runs and expanding refining capacity amid a strong recovery in demand pushed crude oil imports to a record 4.93 million bpd in January 2018, up by double digits compared to both December 2017 and January 2017, according to data compiled by Thomson Reuters Oil Research & Forecasts.

Although the January imports figure may have a seasonal explanation, with spring refinery maintenance approaching, longer-term projections and Indian refinery expansion plans support the view that oil demand growth will be strong. India plans to boost its crude oil refining capacity by 77 percent by 2030 to meet its growing fuel demand. India's energy consumption is expected to grow the fastest among all major economies by 2035, according to the BP Energy Outlook from 2017. Energy consumption in transportation is seen rising by 5.8 percent per year and oil will still be the dominant fuel source with a 93-percent market share in 2035, BP said. By 2030, India will overtake China as the largest growth market for energy in volume terms, according to the UK oil supermajor.

Economic growth in India is also expected to be strong over the next few years, supporting fuel consumption as a growing number of the huge population enter a higher-income slot and buy their first cars. According to Fitch Ratings, demographic factors and investment rates will place India's GDP growth over the next five years at the top among the ten largest emerging markets covered in the rating agency's forecasts. India's projected potential economic growth is 6.7 percent annually, with China and Indonesia following with projected potential growth of 5.5 percent per year each.

India is expected to post continued robust growth in the working-age population in the next five years, bolstering GDP growth potential, Fitch said. The International Monetary Fund (IMF) expects India's real GDP growth to reach 7.4 percent in 2018, 7.8 percent in 2019, 7.9 percent in 2020, 8.1 percent in 2021, and 8.2 percent in 2022. Economic growth will further fuel oil consumption in India, which is expanding its refining capacity to meet the increasing demand. Oil imports are set to continue to grow at a strong pace and increasingly influence global oil flows and oil markets. India's oil demand may not be the nearest-term oil market driver, but it will be the key growth factor in the coming years.

# Shale 2.0 pushes US crude oil production to record high

Anadolu Agency, 15.02.2018



The American oil industry has moved into a new ‘Shale 2.0’ phase by pushing the country’s crude oil production to the highest level in history and surpassing oil output of the world’s second-largest crude oil producer Saudi Arabia.

The new techniques that were introduced a decade ago in the U.S. such as “horizontal drilling” and “hydraulic fracturing” paved the way for the country to almost double its crude oil production to an average 9.4 million barrels per day (mbpd) in 2015, from 5 mbpd in 2008, according to the Energy Information Administration (EIA) data. With cost reductions, higher efficiency and new techniques in Shale 2.0.

The U.S. not only managed to survive the low oil price environment that began in mid-2014 but also managed to increase its crude production to outperform the Saudis. “The U.S.’ Shale 2.0 story is a story of finance, operation efficiencies, and prolific horizontal plays in the Permian Basin [one of the U.S.’ most prolific oil and natural gas geologic basins],” Ed Hirs, an energy economist at the University of Houston, told Anadolu Agency. “Operational efficiencies developed in the Permian are tremendous and spreading to other basins,” he added.

As the U.S. almost doubled its crude oil production in less than a decade, this played a partial role in increasing the glut of supply in the global oil market and pushed oil prices lower. When crude oil prices plummeted below \$30 a barrel in January 2016, their lowest level in almost 13 years, it hit American shale producers the hardest. “The U.S. has lost 250,000 direct oilfield workers in the price war started by OPEC. The U.S. has also lost those high-cost shale producers via some 250 bankruptcies and \$250 billion in lost capital,” Hirs said.

The ‘price war’ was a tactic by Saudi Arabia, the most influential member of OPEC, who persuaded the cartel in November 2014 not to trim the organization’s output, but instead to let oil prices fall in order to drive high-cost shale oil producers out of the global market. The strategy worked to a certain extent in the short-term, but hurt Russians as well as Saudi Arabia, whose economies are highly dependent on revenues from oil sales.

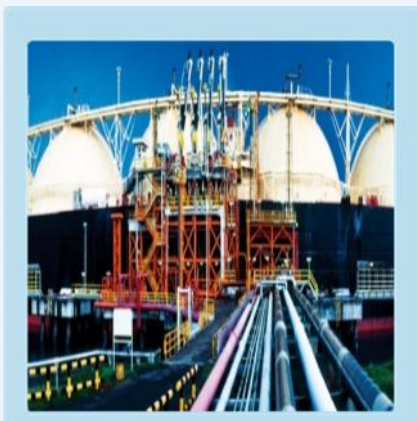
After two years of pumping oil at maximum levels, the two countries agreed in November 2016 to join forces for the first time since 2001 to trim their individual production levels, along with some OPEC countries, in order to boost prices. As oil prices began to climb at the end of 2016, their economies recovered; but that also paved the way for the return of U.S. shale, and only faster and stronger in the form of Shale 2.0. “What the casual observer has not realized is that the U.S. shale growth today is a product of survivorship,” Hirs said.

“Costs per barrel have declined due to some production improvements, but remember, the companies that survived already had lower operating costs than the ones that failed,” he added. Low crude oil prices taught American producers of the need to increase efficiency and lower costs in order to survive in the global market. “The time to drill wells has decreased by as much as 60 percent even while the length of laterals has increased,” Hirs said.

“Today, the industry drills a well with a three-mile lateral in the time that a well with a one-mile lateral took three years ago. Instead of fracking one well with a one-mile lateral, the industry practice is to simultaneously frack three wells with each having three-mile laterals,” he explained. “These efficiencies in manufacturing are driving the cost reductions that allowed some of the shale players to survive to this day when the Saudis and Russians agreed to raise prices,” Hirs concluded.

## U.S., Canada face off for LNG dominance

Oil & Price, 20.02.2018



Considering that the North American shale revolution is the key global energy development of the past decade, it's surprising that Canada's natural gas production has actually been falling. Canada is still the world's fifth largest gas producer, but output has dropped around 15 percent over the past 15 years to 16 Bcf/d.

As a free market economy without the over-influence of a national oil company, Canada's future gas production is desired by the rapidly globalizing gas market. According to BP, Canada has about 80 Tcf of proven gas reserves, and with low incremental needs.

This large endowment could make the country a worldwide gas exporter at some point in the 2020s. The main problem for Canadian gas production is the decline of its sole export market, the U.S., where dry gas production has risen 35 percent to nearly 80 Bcf/d since 2010. In turn, over the past decade, Canada's gas exports to the U.S. have been sliced in half to 5.5 Bcf/d. This decline will continue: The EIA projects that U.S. gas production will increase 40 percent by 2040. Enter Canada's necessity for LNG, the fastest-growing way to trade gas and a market that constitutes a rising 12 percent of all global use. There is great potential to export LNG off the coast of British Columbia, where cargoes can ship gas produced in western Canada to fast growing Asian markets. Western Canada accounts for around 70 percent of the country's gas production.





Now already online, U.S. LNG will be a competitor for Canadian LNG. But, even with the Panama Canal expansion, the trip from British Columbia to Asia is still approximately two-thirds shorter than from the U.S. Gulf. Hampered today by a global supply glut, potential western Canada's LNG projects should come online early next decade, right when expected higher oil prices will make Canada's oil-linked LNG profitable, and the end of many long-term existing contracts will allow Asian buyers to seek new sources of supply. Additionally, the global market is expected to go into deficit around that time, reversing back to a seller's market supporting LNG shippers from Canada and elsewhere.

Centered on Asia, Canada's National Energy Board has projected that LNG exports could reach 2.5 Bcf/d by 2023, being the driving force behind increased production in the country. Currently, that seems optimistic for Canadian LNG, considering that no potential export terminal has even passed the final investment decision (FID) stage. LNG Canada has tentative plans to make a FID late this year, and construction could take four years. As for production, Canada has greater shale opportunities than others because the country retains many of the same conditions that enabled the U.S. renaissance, such as a free and highly competitive marketplace, an unmatched skilled labor force and service sector, and surface and mineral rights that can be owned by private individuals. Technological improvements and "learning by doing" expertise are upping the productivity of new wells.

Tight gas from shale is expected to account for 70-75 percent of Canada's production in 2025. Most of this will come from the Montney shale formation in British Columbia and Alberta. The Montney has been appraised with 450 Tcf of recoverable shale gas, putting it on par with Pennsylvania's mighty Marcellus shale play, likely the largest gas field in the world. Thanks to long-term forward sales contracts and other marketing agreements, full cycle break-even costs in the Montney can be less than C\$2.00 per thousand cubic feet.

There are, however, a few variables to the Canadian LNG export story that could serve as limitations. For example, if new production is strong enough, even without the LNG outlet, which beyond currently poor market conditions also confronts strong environmental opposition and political pushback, gas from Canada could once again become competitive via pipeline to the U.S., particularly Midwest markets.

And a large expansion of tar sands development in Alberta, which is helped by higher oil prices, would mean much more domestic gas demand and less surplus to export. Tar sands account for about 30 percent of Canada's total natural gas usage. Natural gas is heavily used in the industry to (1.) heat water to separate the bitumen (the viscous form of the oil) from sand, and (2.) create steam to produce the hydrogen that converts bitumen into synthetic crude oil.

## Canada's oil crisis continues to worsen

Oil & Price, 20.02.2018



Canadian oil producers can't get a break. First it was the pipelines — there are not enough of them to carry the crude from Alberta's oil sands to export markets. This pipeline capacity problem has been forcing producers to pay higher rates for railway transportation, which has naturally hurt their margins in no small way. Now, there is a shortage of rail cars as well.

The situation is going from bad to worse for Canadian producers who can't seem to catch a break. Canadian railway operators are fighting harsh winter weather.

Also, finding it hard to supply enough cars to move both crude oil from Alberta and grain from the Prairies. The harsh weather is just the latest factor, however. Before that, there was the 45-percent surge in demand for rail cars from the oil industry, Bloomberg reports, citing Canadian National Railway. The surge happened in the third quarter of last year, and Canadian National's chief executive Ghislain Houle says that it took the company "a little bit by surprise." This surprise has led to "pinch points" on the railway operator's network, further aggravating an already bad situation.

As a result, crude oil remains in Alberta and prices fall further because Alberta is where the local crude is priced, Bloomberg's Jen Skerritt and Robert Tuttle note. In fact, Canadian crude is currently trading at the biggest discount to West Texas Intermediate in four years, at \$30.60 per barrel. The blow is particularly severe as it comes amid improving oil prices elsewhere driven by the stock market recovery.

The light at the end of the tunnel is barely a glimmer. Despite federal government support for the Trans Mountain pipeline expansion project, it is still facing obstacles that may result in it never seeing the light of day. The project that would boost the current pipeline's capacity from 300,000 bpd to 890,000 bpd, accommodating much of the increased Alberta bitumen production, is being challenged in court and Kinder Morgan has yet to collect even half of the necessary permits to proceed with it. There are no other major pipeline projects in Canada that have been approved. Meanwhile, the news from the research front is not good, either. Back in September, media outlets reported on an accidental discovery that could make transporting bitumen by rail much safer by turning the crude into pellets. This would minimize the danger of a spill but, some said at the time, would increase transportation costs.

Canadian national Railway is also working on its own bitumen pellet technology it calls CanaPux, but for now it has not yet been commercialized, perhaps for the same reason of cost. Yet bitumen pellets, some observers note, could be the best solution to the current conflict between Alberta and British Columbia. The latter is doing everything it can to stall Trans Mountain's expansion citing environmental concerns. Alberta stopped importing B.C. wines in retaliation.

But bitumen pellets are safe, their creators say, so B.C. would have nothing to worry about. And yet, like grain, these pellets would need rail cars to transport them should this option be chosen despite cost considerations. Canadian National says it plans to hike its capex to \$2.6 billion this year in response to the shortage. The effect of the surprise jump in demand for railcar capacity from the oil industry should also subside eventually. The only question is how much all these factors would hurt Canada's oil production growth in the meantime.

## Brazil regulator approves bidders for oil auction in March

Reuters, 21.02.2018



Brazilian oil regulator ANP said it approved Wednesday the participation of 14 companies in an oil round to be held.

Among the companies authorized to bid for the round, that will auction offshore and onshore oil and gas exploration blocs, are BP Plc, Exxon Mobil Corp, Repsol SA, Petroleo Brasileiro SA, Royal Dutch Shell Plc and Total SA. If all the 70 blocs in auction are sold, the government would receive 4.8 billion reais (\$1.5 billion). But ANP head Decio Oddone has said the government estimates a relevant number of the areas would not be sold.

The government may raise around 1.1 billion in two auctions, he said, considering another round of so-called subsalt areas scheduled for June 7.



# Announcements & Reports

## *World Energy Outlook 2018 Edition*

**Source** : BP

**Weblink** : <https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/energy-outlook/bp-energy-outlook-2018.pdf>

## *Global Energy Perspective*

**Source** : McKinsey

**Weblink** : <http://www.apren.pt/contents/publicationsothers/global-energy-perspective-reference-case-2018-vp.pdf>

## *Russia's National Oil Champion Goes Global*

**Source** : CSIS

**Weblink** : <https://www.csis.org/analysis/russias-national-oil-champion-goes-global>

# Upcoming Events

## *North Africa Petroleum Exhibition & Conference*

**Date** : 03 March 2018

**Place** : Oran, Algeria

**Website** : [www.napec-dz.com/NewDefault.aspx?lg=en](http://www.napec-dz.com/NewDefault.aspx?lg=en)

## *CERAWeek by IHS Markit*

**Date** : 05 - 09 March 2018

**Place** : Houston, USA

**Website** : <https://ceraweek.com/>

## *Central & Eastern European Gas Conference (CEE Gas)*

**Date** : 07 - 08 March 2018

**Place** : Zagreb, Croatia

**Website** : <http://www.theceegas.com/>



## *The Fifth Eastern Mediterranean Gas Conference*

**Date** : 21 - 22 March 2018  
**Place** : Nicosia, Cyprus  
**Website** : <http://www.cvent.com/events/eastern-mediterranean-gas-conference-2018/event-summary-23f9449dfa9442e1930a5291c82d410d.aspx>

## *Eurasian Gas Summit*

**Date** : 21 - 23 March 2018  
**Place** : Budapest, Hungary  
**Website** : <https://eurasiangassummit.com/>

## *The 10<sup>th</sup> International Petroleum & Natural Gas Summit*

**Date** : 27 - 28 March 2018  
**Place** : Beijing, China  
**Website** : <http://oil.zhenweievents.com/en/>

## *The 8<sup>th</sup> International Offshore Engineering Technology & Equipment Exhibiton*

**Date** : 27 - 29 March 2018  
**Place** : Beijing, China  
**Website** : <http://www.chinamaritime.com.cn/en/>

## *Kuwait Oil & Gas Summit*

**Date** : 16 April 2018  
**Place** : Kuwait City  
**Website** : [www.cwckuwait.com/](http://www.cwckuwait.com/)

## *3<sup>rd</sup> SOCAR International Caspian and Central Asia Downstream Forum*

**Date** : 24 – 25 April 2018  
**Place** : Baku, Azerbaijan

## *3<sup>rd</sup> LNG International Summit*

**Date** : 25 - 26 April 2018  
**Place** : Hamburg, Germany  
**Website** : <http://lngsummit.org/>

## *International Conference on Petroleum & Petrochemical Economics*

**Date** : 26 April 2018  
**Place** : Istanbul, Turkey  
**Website** : [www.waset.org/conference/2018/04/istanbul/ICPPE](http://www.waset.org/conference/2018/04/istanbul/ICPPE)



## *Mediterranean Oil & Gas Summit*

**Date** : 02 – 03 May 2018  
**Place** : Rome, Italy  
**Website** : <https://10times.com/mediterranean-oil-gas-summit>

## *Iran Oil Show*

**Date** : 06 – 09 May 2018  
**Place** : Tehran, Iran  
**Website** : <https://10times.com/iran-oil-show>

## *FLNG Global 2018*

**Date** : 14 – 15 May 2018  
**Place** : Amsterdam, The Netherlands  
**Website** : <https://www.clocate.com/conference/FLNG-Global-2018/49265/>

*Supported by PETFORM*

## *Flame Conference 2018*

**Date** : 14 – 17 May 2018  
**Place** : Amsterdam  
**Website** : [https://energy.knect365.com/flame-conference/?vip\\_code=FKA2659PETFORM](https://energy.knect365.com/flame-conference/?vip_code=FKA2659PETFORM)



## *4<sup>th</sup> International LNG Congress*

**Date** : 04 – 05 June 2018  
**Place** : Berlin, Germany  
**Website** : <http://lngcongress.com/>

## *14th Russian Petroleum & Gas Congress (RPGC2018)*

**Date** : 18 – 19 June 2018  
**Place** : Moscow, Russia  
**Website** : <https://www.clocate.com/conference/14th-Russian-Petroleum-and-Gas-Congress-RPGC-2018/27847/>

## *27<sup>th</sup> World Gas Conference*

**Date** : 25 - 29 June 2018  
**Place** : Washington DC  
**Website** : <https://wgc2018.com/?src=Upstream>



## *Offshore Oil & Gas and Chemical Industry Technology and Equipment Exhibition*

**Date** : 23 - 25 August 2018  
**Place** : Shanghai  
**Website** : [http://sh.cippe.com.cn/en/For\\_Visitors/Venue\\_Time/](http://sh.cippe.com.cn/en/For_Visitors/Venue_Time/)

## *Gastech*

**Date** : 17 – 20 September 2018  
**Place** : Barcelona, Spain  
**Website** : <http://www.gastechevent.com/>

## *The European Autumn Gas Conference*

**Date** : 07 – 09 November 2018  
**Place** : Berlin, Germany  
**Website** : <http://www.theeagc.com/>