

## **Qatargas, BOTAS sign new three-year LNG agreement**

Anadolu Agency, 20.09.2017



The world's biggest LNG producer Qatar's Qatargas and Turkey's Petroleum Pipeline Corporation company BOTAS signed a medium-term sales and purchase agreement, Qatargas announced.

Qatargas said it would deliver 1.5 million tonnes of LNG per annum for three years to Turkey under the terms of the agreement. "We are very pleased to announce this new agreement with BOTAS which will further strengthen our relationship with our friends in Turkey," said president, chief executive officer of Qatar Petroleum, and board chairman of the Qatargas.

Al-Kaabi added that as the LNG market continues to evolve, Qatar's ability to capture new opportunities is once again evident in this latest deal. "This deal reflects the deep confidence of our customers around the world in our capabilities as a reliable supplier of LNG to satisfy their requirements," he said.

Khalid Bin Khalifa Al-Thani, chief executive officer of Qatargas also said that, "Qatargas is delighted to announce this multi-year deal with BOTAS – a valued customer with deep expertise in the LNG industry. Our relationship with BOTAS has evolved from supplying spot cargoes to the current medium-term deal, and we look forward to providing BOTAS with reliable, clean energy for many years to come."

The LNG will be delivered onboard Q-Flex vessels to either the Egegaz LNG Terminal, the Marmara LNG Terminal, or to the Etki LNG terminal in Turkey. BOTAS and Qatar's national oil company signed a memorandum of understanding for long-term LNG trade in December 2015. Turkey's total LNG consumption is 55 billion cubic meters of which the majority is imported from Qatar with imports also from Algeria and Nigeria.

# KRG's oil exports via Turkey may be halted due to vote

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Iraqi Kurdish Regional Government's (KRG) economic power, propelled by oil exports via Turkey, is potentially at risk if the KRG's capital and seat of power Erbil insists on independence considering Ankara's objection to the referendum, Volkan Ozdemir, head of the Institute for Energy Markets and Policies (EPPEN) told Anadolu Agency (AA).

The non-binding referendum is expected to see residents in provinces controlled by the Iraqi regional government vote on independence from Baghdad on Sept. 25.

Baghdad rejects the planned poll, saying it will adversely affect the fight against the Daesh terrorist group, which still maintains a significant presence in northern Iraq. Turkey, too, rejects it, stating the region's stability depends on the unity of Iraq and the maintenance of its territorial integrity.

Speaking exclusively to AA, Ozdemir said the oil revenue sharing deal between Baghdad and Erbil has already lost its validity. He explained that in the last three and a half years, Erbil has exported its oil to international markets through Turkey, independently from Baghdad's central government.

Ozdemir highlighted that the status of Kirkuk's oil fields has great potential to inflame conflict between the sides. "KRG's efforts to join Kirkuk in the Kurdish region's vote on independence through declaring a fait accompli created tension between Baghdad and Erbil. Therefore, we can say that these efforts have caused a very serious conflict potential," he said.

Discord between Baghdad and northern Iraq's Kurdish Regional Government has long been the subject of dispute in the oil-rich Kirkuk province that is home to Turkmen, Kurds and Arabs. Ozdemir highlighted the determining role of neighboring countries like Turkey and Iran along with countries further afield that have expressed their opposition to the vote, namely the U.S., the U.K., and on the other hand to Israel, the only country that has given its overt support to the vote in this critical process. Russia, for its part has also a key role to play, as the KRG's major partner in bilateral energy projects in the region, and because of this, the KRG is attempting to gain its support for the yes vote for independence.

"Turkey holds important power in its hands: the oil trade that is conducted through its territories. At a time when oil prices are getting close to \$60 per barrel, Erbil gained economic independence from Baghdad with the help of this trade. If Turkey is against this independence, it can stop oil transfers, but this won't be easy. If stopped, the KRG will not have this economic power," he explained.



Recent reports on a potential gas infrastructure project agreement between the KRG and Russian state-run oil company Rosneft holds great importance for the region, Ozdemir explained.

He noted that the KRG is trying to garner Russia's support. "If we take it from a more general perspective, along with all the biggest energy companies like Genel Energy, Exxon, DNO and Turkish Energy Company, Rosneft is starting to gain a foothold in the KRG's energy sector."

Rosneft on Sept. 18 announced that it completed due diligence on the infrastructure of an export oil pipeline in the KRG and will shortly finalize the legally binding documents for the project under an investment agreement signed at St. Petersburg International Economic Forum in June 2017. "In June, Rosneft gained access to some of the oil fields, oil trade and pipelines in the KRG. Russia, through Rosneft, is starting to become a player in the region, while the Barzani administration is trying to get the support of Russia in order to realize the referendum," he explained.

"Despite the misleading reports from the KRG side on the gas infrastructure agreement, Rosneft's statement that the agreement has not been reached yet shows its intention to create a new acceptable balance between Erbil, Baghdad and Ankara," he noted.

The referendum could be delayed for this reason and the future of the region could remain uncertain for a while, according to Ozdemir. "While each actor makes its own calculations, Turkey, who holds energy power in its hands, is the most important player in these calculations. If it wants, it can stop oil transfer and if that happens, the KRG's independence plans could be shelved," he concluded.

"KRG needs to have Turkey's support" Oguzhan Akyener, president of Turkey Energy Strategies & Politics Research Center (TESPAM), said Iraq's central government has not transferred the KRG's 17 percent share of oil revenues since 2014.

In response, the KRG has held onto all the oil revenue the region generated while refusing to share it with the central government, Akyener noted. He added that this shows the great conflict between the sides, which promises to long continue unless conformity and stability are secured.

"Formally what has been agreed is that the KRG should not sell its oil without permission of the Iraqi central government. All the oil trade administered with the permission of the central government should be included in the central government's budget out of which 17 percent should be transferred to the KRG. But this process seems to be non-operational," he asserted.

"There is also the problem of the Kirkuk oil fields, which have 26 billion cubic meters of proven reserves. The KRG is trying to include the Kirkuk province in the independence vote. However, should the referendum go ahead, the pre-existing oil production dispute from those fields could turn into further conflict," Akyener explained.

The aim of the KRG is to expand its regional dominance through Kirkuk if it can obtain the support of the international community, Akyener declared. "In the end, energy is the reason behind efforts to involve Kirkuk in the independence vote. However, it should be noted that if the KRG cannot have the support of its neighbors Iran, the Iraqi central government or Turkey, its daily oil exports of 550 to 600 thousand barrels will be reset," he added.

## France's Engie to supply 10 LNG cargoes to Turkey

Argus, 20.09.2017



French energy company Engie will supply 10 LNG cargoes to Botas over the 2017-18 winter.

Engie will supply two cargoes a month between November 2017 and March 2018. It was awarded the cargoes through a tendering process, traders said. Botas issued a tender to buy 19 LNG cargoes for winter 2017-18 delivery but did not award all the cargoes. The tender closed on 14 June and was awarded on 16 June. Some European market participants bid above a 40¢/mn Btu premium to the UK NBP gas hub but were not awarded any cargoes in June.

Botas received offers for November-December storage gas from Turkish private-sector importers last month, but no deal has been concluded, market participants said.

## Turkey's Botas continues gas injections at Tuz Golu

Argus, 17.09.2017



Botas has filled three caverns with around 130,000m<sup>3</sup> each of working gas at the 1bn m<sup>3</sup> Tuz Golu, and is injecting into a fourth cavern with a similar capacity as it prepares for winter.

Botas is injecting around 2.5mn m<sup>3</sup>/d of cushion and commercial gas combined, and plans to start withdrawals of 13mn m<sup>3</sup>/d in December. The four caverns would provide a combined 520,000m<sup>3</sup> ahead of December, which could be withdrawn in 40 days if the facility runs at its maximum technical capacity. But withdrawal capacity typically declines as inventories fall, which could extend the stockdraw.

Turkey's storage withdrawal capacity will increase to 38mn m<sup>3</sup>/d from 25mn m<sup>3</sup>/d after Tuz Golu is commissioned, which combined with LNG capacity expansions could help boost supplies in winter. Botas started injecting cushion gas at Tuz Golu in December last year. It plans to expand the site's withdrawal capacity to 20mn m<sup>3</sup>/d in 2018 and to 60mn m<sup>3</sup>/d by 2021.

## Turkey speeds up LNG capacity expansion

Argus, 17.09.2017



Turkey has fast tracked a planned expansion of LNG sendout capacity at its onshore terminals, and state-controlled gas firm Botas aims to bring forward the start-up of the 20mn m<sup>3</sup>/d Dortyol floating storage and regasification unit (FSRU) to November from December.

Sendout capacity at the Egegaz-run Aliaga terminal has been expanded to 30mn m<sup>3</sup>/d from 24.5mn m<sup>3</sup>/d. The expansion was expected to take place in 2018, according to Botas' capacity projections in May.

Sendout capacity at the Botas-run Marmara Ereğlisi terminal will rise to 27mn m<sup>3</sup>/d in November from 22mn m<sup>3</sup>/d, and climb to 37mn m<sup>3</sup>/d in December or by the start of 2018. This was also brought forward from 2018. Turkey's LNG regasification capacity will increase to 107mn m<sup>3</sup>/d by December from its current 66.5mn m<sup>3</sup>/d, if there are no delays. And the country's overall gas delivery capacity will rise to 282.3mn m<sup>3</sup>/d from 228.8mn m<sup>3</sup>/d, assuming 13mn m<sup>3</sup>/d withdrawal capacity at the planned Tuz Golu storage facility also becomes operational by December. This could help Botas to avert supply cuts in the upcoming winter. The firm manages distribution through linepack, but diminishing pressure in peak demand periods because of infrastructure limitations has forced it to restrict supplies to power sector and large industrial users in previous years.



# Iraq says OPEC mulls deeper, longer oil cuts to end-2018

Rigzone, 19.09.2017



Iraq and some other oil producers taking part in global output cuts think they should reduce supply by an additional 1 percent to help re-balance the market, according to Iraqi Oil Minister Jabbar al-Luaibi. Some also favor extending cuts until the end of 2018, he said.

Producers are talking about what to do next regarding the cuts, al-Luaibi said at a conference in the emirate of Fujairah in the United Arab Emirates. There is “no firm decision yet” on further cuts or any extension of the current reductions, he said.

“Some think that cuts should be extended beyond March, three or four months, or six months, or maybe till the end of 2018,” al-Luaibi said. “Some, like Ecuador and other countries, even Iraq, think there should be another cut of 1 percent.”

The Organization of Petroleum Exporting Countries and major suppliers including Russia agreed to trim output by 1.8 million barrels to clear a global glut, led partly by U.S. shale production. They extended their accord through the first quarter, and ministers from Saudi Arabia, Venezuela, the United Arab Emirates and Russia have said producers may consider prolonging the cuts further. Benchmark Brent crude has slid about 2 percent this year and is currently trading at less than \$56 a barrel.

OPEC’s decreases in output “are going OK,” while non-OPEC compliance with the targets is less than that of the group, though this is to be expected, al-Luaibi said. Oil prices and the global market are improving, and Iraq sees a “positive trend” in crude markets, he said. Oil demand will continue to increase in the coming two to three years, he said.

Iraq, OPEC’s second-biggest producer, is exceeding its targeted reduction of 210,000 barrels a day by cutting 270,000 barrels a day, al-Luaibi said. Iraq is now pumping 4.32 million or 4.35 million barrels a day, he said. Before the cuts started in January, the country was pumping 4.565 million barrels a day, he said.

# Iran faces challenges realizing natural gas potential

AI- Monitor, 18.09.2017



With 33.5 trillion cubic meters of natural gas, Iran has the largest conventional gas reserves in the world. Along with its vast oil reserves, it also has sizable, non-associated conventional gas resources that are being developed aggressively. With regard to exports, however, natural gas has never matched the significance of oil in Iran.

Nonetheless, Tehran has boosted gas production tremendously in the past few years, despite sanctions and other challenges. Up until 2016, almost all of Iran's gas production was used for domestic consumption, freeing up more oil for export.

In the meantime, a saturation of domestic utilization has allowed Iran to boost its exports, which are still negligible compared to the resource potential. Officials recently said that gas exports grew by 64% during the period of March 21 to Aug. 22, 2017, compared to the same period in 2016.

According to the "BP Statistical Review of World Energy," Iran produced 202 billion cubic meters (bcm) of gas in 2016. The country's Ministry of Petroleum envisions annual gas production of 300 bcm by 2020, which is a reflection of its enormous resource base. Other objectives and priorities are as follows: remain the third largest gas producer in the world with gas production of 360 bcm per annum by 2025; inject gas into the oil fields to maintain and increase oil production; supply gas to power stations, gas-based industries and petrochemicals and to export the value-added products at economically viable prices; replace domestic demand for petroleum products with natural gas and maintain the share of gas in Iran's energy basket above 70%; and export gas to the regional countries, the Indian subcontinent and Europe.

Experts note one omission — a strategy to produce liquefied natural gas (LNG), which is easier to transport to distant markets, including Europe. Though Tehran has one significant project in this sector, Iran LNG, the development of this technologically more complex branch of the gas sector is not a priority for Iran in the medium term.

Iran's vision for gas ties in well with the "Document on Resistance Economy," which emphasizes value-added activities and increases in gas and electricity exports as well as the export of petrochemicals and petroleum products. Each of the above steps makes sense as components of a strategy driven by domestic value generation. Yet each step presents Iran with challenges that need to be overcome.



First and foremost, increasing production from 202 bcm to 360 bcm by 2025 will require an investment of more than \$50 billion in upstream projects in addition to which further capacities will be needed mid-stream (such as pipelines) and downstream. The issue in achieving the above goal is not the availability of projects, but the investment flows and Iran's ability to absorb this level of investment considering the restrictions of its contractual framework, especially concerning local content. As such, the pace of the production increase may be slower than officials hope.

Notwithstanding, there will be considerable growth in production capacity, and the surplus gas will need to be allocated to various sectors. As the above vision indicates, injecting gas into oil fields has been a priority, and this goal seems to be sufficiently addressed. When it comes to distributing gas to other sectors — such as electricity generation, petrochemicals, industries, etc. — the Ministry of Petroleum faces multiple challenges. On the one side, there is sectoral competition, as gas can help each of these sectors to flourish. On the other side, regional competitions undermine national planning by the relevant companies. Furthermore, the distribution of gas across Iran's vast geography faces operational and practical bottlenecks such as land ownership, environmental issues and so on.

At the same time, attracting investment and technology into gas-based industries will require a comprehensive strategy for contractual frameworks, including gas pricing, an issue that has not been resolved due to disagreements among political stakeholders.

As for increasing the share of natural gas to about 70% of the domestic energy basket, according to the deputy minister in charge of gas, Hamid Reza Araghi, gas is already 72% of the country's energy basket, though according to the BP review, the gas share was less than 65% in 2015. Whatever the actual figure, reaching a 70% share by 2025 is feasible, if the needed investments materialize.

Finally, the goal of exporting gas to neighboring countries is already in place, with Iran exporting gas to Turkey and Iraq, preparing to export to Oman and negotiating to export to Pakistan. The plan is to export to as many neighbors as possible and to also look for potential in other regions, including Europe. The challenge of exporting gas is, however, seen in the relationship between Turkey and Iran. Their so-called take or pay contract has been subject to a number of disputes, including the most recent arbitration that forced Iran to export gas free of charge to Turkey, a source of political controversy in Tehran. The fact is, cross-border links are challenging in politically unstable West Asia. At the same time, some stakeholders in Tehran are arguing that Iran should export energy in the form of electricity, which is more feasible to energy interconnectivity.

Natural gas also plays a role in the relationship between Iran and Qatar, the two nations that share the largest gas basin in the world, known as South Pars in Iran and North Dome in Qatar. The shared interest in sustaining and increasing the wealth potential of this reserve has helped the two sides develop a pragmatic relationship that stands to benefit both sides, especially considering the current anti-Qatar sentiment in the Gulf Cooperation Council. Even though there is always potential for tensions in operating shared fields, Tehran will not interfere with Qatar's operations. Iranian Petroleum Minister Bijan Zanganeh recently stated, "They can carry out their development projects as we do ours."



Gas flaring represents another operational challenge that will gain in significance in line with the Paris Climate Agreement. Incidentally, Tehran is making an effort and accordingly seeks to extinguish associated gas flares at South Pars fields by March 2020.

There is no doubt that Iran has a huge potential in the gas sector. As outlined by AI-Monitor more than three years ago, Tehran needs to reform its gas sector by introducing an appropriate gas-pricing strategy as well as legal, operational and political frameworks that will attract the latest technologies to all subsectors of the gas value chain and promote gas-based industries as well as energy efficiency. Despite existing challenges, the technocratic team around Zanganeh is experienced enough to introduce the needed policies, but the complexities in the political structure as well as regional uncertainties will continue to delay the realization of the country's full gas potential.

## Russia's Gazprom signs LNG supply deal with Ghana

Reuters, 18.09.2017



Steady, Russian gas giant Gazprom has signed a 12-year deal to supply Ghana National Petroleum Corporation (GNPC) with liquefied natural gas, a subsidiary of Gazprom Marketing & Trading Group said on Monday.

Gazprom Global LNG Limited (GGLNG) said LNG supplies were due to start in 2019. The agreement is the first stage in a planned series of partnerships between GGLNG and GNPC, with both companies working to develop the infrastructure and services required to manage and market the projected gas flows from the region, Gazprom said.

# Russia's Rosneft clinches gas pipeline deal with Iraq's Kurdish Regional Government

Reuters, 18.09.2017



Russian oil major Rosneft will invest in gas pipelines in Iraq's Kurdistan, expanding its commitment to the region ahead of its independence vote to help it become a major exporter of gas to Turkey and Europe.

Kurdish Regional Government has been exporting oil independently from the central government in Baghdad since 2014 and Kremlin-controlled Rosneft joined the list of buyers this year, lending the semi-autonomous region hundreds of millions of dollars in loans guaranteed by future oil sales. Now Rosneft is widening its investments to gas by agreeing to fund a natural gas pipeline in Kurdistan.

Two sources close to the deal said the investments would amount to more than \$1 billion (735.35 million pounds). Kurdish Regional Government is holding an independence vote on Sept. 25 as it seeks to part ways from Baghdad after years of disputes over budget revenues and the sharing of oil exports.

Erbil, the seat of the KRG in northern Iraq, needs money to fund the fight against Islamic state and a budget crisis caused by low oil prices. Kurdistan has relied on oil pre-finance deals to improve its fiscal position but has struggled to develop its large gas reserves, which can require more investment to develop on a longer-term scale.

The arrival of Rosneft will speed up gas development, which has so far largely been driven by mid-sized companies. For Rosneft, the world's largest publicly listed oil company by production, the deal is a major boost to its international gas ambitions. Rosneft has long sought to challenge Gazprom, Russia's gas export monopoly, in supplying gas to Europe.

For Turkey, it means the arrival of new supplies for its energy-hungry economy and the potential to become a major centre for gas supplies to Europe. The pipeline's capacity is expected to handle up to 30 billion cubic metres (bcm) of gas exports a year, in addition to supplying domestic users. Kurdistan sits on some of the largest untapped gas deposits on Europe's doorstep.

The volumes that Rosneft wants to help Kurdistan supply to export markets are big - they represent 6 percent of total European gas demand and one-sixth of current gas export volumes by Russia - by far the largest supplier of gas to Europe. The pipeline will be constructed in 2019 for Kurdish domestic use, with exports due to begin in 2020.

Rosneft has previously loaned money to Kurdistan guaranteed by future oil sales and has also agreed to help the region expand its pipeline infrastructure. Kurdistan is seeking to boost oil exports to one million barrels per day (bpd) by the end of this decade from the current 0.65 million bpd.

## Norway's giant fund hits 'stunning' \$1 trillion value

Anadolu Agency, 19.09.2017



The value of Norway's sovereign wealth fund hit a record high of \$1 trillion early on Tuesday, the sovereign wealth fund's operator, Norges Bank Investment Management (NBIM) announced on Tuesday.

NBIM said that a strengthening of the world's major currencies against the U.S. dollar, combined with strong equity markets, have rapidly increased the U.S. dollar value of the fund in 2017. "I don't think anyone expected the fund to ever reach \$1 trillion when the first transfer of oil revenue was made in May 1996," said CEO of NBIM Yngve Slyngstad.

"Reaching \$1 trillion is a milestone, and the growth in the fund's market value has been stunning," the CEO added.

Norway, Europe's largest oil producer and the world's third-largest natural gas exporter after Russia and Qatar, holds the world's biggest fund. The fund, as of December 2016, was invested in 48 different Turkish companies, and totalled almost \$1 billion.

## German Uniper signs LNG deal with Singapore's Pavilion

Anadolu Agency, 20.09.2017



Uniper and Singapore's Pavilion Gas signed a LNG deal that will allow both companies to gain access to assets in their respective home markets, Uniper announced on Wednesday.

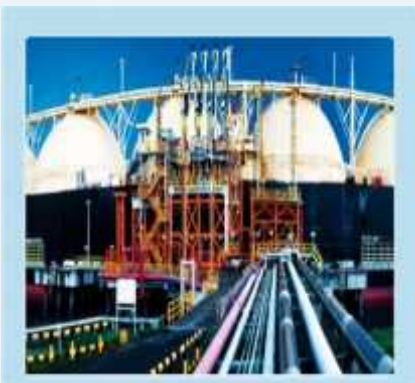
The multi-year agreement between the companies will allow Pavilion access to the U.K. and continental European gas markets, while Uniper will benefit from access to LNG assets in the Asian market, the Dusseldorf-based company Uniper highlighted. Uniper will gain access to Pavilion's storage and reloading facility while Pavilion will benefit from access to LNG re-gasification capacities in Gate LNG terminal.

"This deal will enhance the flexibility within the diverse LNG portfolios developed by both companies over the years. It will further create LNG logistic optimization abilities for both companies between the Atlantic and Pacific basin," the statement read.

Both companies will be looking to co-operate further in different areas of energy trading providing extensive experience of their home markets and venturing into new markets together, it continued.

## Investors flock to the next big LNG hot spot

Oil & Price, 17.09.2017



On June 1, 2017, Italian oil major Eni officially signed off on its Coral South Liquefied Natural Gas (FLNG) project in Mozambique, almost 6 years after the initial discovery of extensive gas reserves positioned Mozambique as potentially one of the world's leading natural gas producers.

Not only is the Coral South FLNG project expected to significantly contribute to Mozambique's economic development, but it's also proof that there are investors that still have confidence in a country that is struggling through an ongoing financial crisis.



Not only have Eni's discoveries drastically improved Mozambique's long-term economic outlook, they may also have proved to be a turning point in bilateral relations, as both countries appear keen to capitalize on these lucrative deposits.

Mozambique is one of Italy's leading partners in Sub-Saharan Africa, in historical, political and economic relations. Although Mozambique was previously a Portuguese colony, Italy has played a significant part in its post-colonial history—particularly in terms of the role the Italian government and Catholic Church played in negotiating the Rome General Peace Accords in 1992.

Since then, Italy has remained a key partner, providing notable financial support to Mozambique's education, health and development sectors. More recently, relations have shifted from a predominantly donor-beneficiary relationship to a more articulated and equal political and economic cooperation.

Eni has been present in Mozambique since 2006, and has made several significant gas discoveries. This includes their October 2011 natural gas discovery, often referred to as the largest in the company's history.

Notably, while Eni is no longer majority owned by the state (the Italian government maintains a 30 percent stake after having initiated a privatisation process in 1995), Eni remains a considerable Italian foreign policy tool. Nicknamed "Italy's other foreign affairs ministry", former Prime Minister Renzi has referred to the company as "a fundamental piece of [Italy's] energy policy, [Italy's] foreign policy and [Italy's] intelligence policy".

Furthermore, Eni's CEO Claudio Descalzi is widely regarded as having the same powers as a government minister, and he is believed to know the leaders of many countries better than Italy's official ministers.

For many countries in Africa—particularly Mozambique—Descalzi's 2014 promotion to CEO may have come as a welcome development. Having spent much of his early career in Africa (including Libya, Nigeria and Congo), after taking over as head of exploration and production in 2008, Descalzi is believed to have been instrumental in helping Eni expand its operations across the continent. This is particularly the case in sub-Saharan areas, which has catapulted Eni into the biggest foreign oil and gas operator on the continent.

More importantly, it was during Descalzi's tenure as head of exploration and production that Eni made its game-changing discoveries in Mozambique. Therefore, the country's operations are likely to not only remain important to Eni in terms of business, but also to Descalzi personally. Africa currently provides over half of Eni's total production of oil and natural gas. In 2016, Descalzi announced that the company planned to invest some €20 billion in Africa before 2020. This reportedly amounts to approximately 60 percent of Eni's total global investments.





Descalzi has said that over the long term, Eni will focus on increasing its investments in developing Africa's gas reserves—including the two major fields the company recently discovered in Mozambique and Egypt—with the aim to devote more money to power generation and renewables in the longer term. Notably, Descalzi has described Eni's Coral South FLNG project, as "just an appetizer" to what will follow regarding Eni's operations in Mozambique's Rovuma Basin, strongly inferring that Eni's presence in Mozambique will only keep growing in the coming decades.

As Eni continues to expand its Mozambique operations, the investment market for other Italian companies will become increasingly open. So it's likely no coincidence that just over a month after Coral South FLNG Project was signed, a large business delegation from Mozambique attended a series of conferences and meetings in Italy in July 2017, aimed at encouraging Italian investments.

Álvaro Massingue, Vice President of the Confederation of Economic Associations of Mozambique (CTA) says that the trip was organised to strengthen economic partnership, and to highlight potential business opportunities for Italian companies looking to enter Mozambique, and potentially share their technical expertise. This is important because if Mozambique is to truly exploit its natural resource discoveries, it will require a qualified workforce. Without a significant history of an oil and gas industry, Mozambique's workforce doesn't generally possess the necessary skills. In some ways, this problem has been acknowledged and is being addressed.

For example, in May 2014, Mozambique's National Hydrocarbon Company (ENH) announced that its subsidiary ENH Logistics (ENHL) established a partnership with Italian company Bonatti. The focus of the partnership was to provide services in the areas of procurement, construction, the operation and maintenance of infrastructures, electricity and automation. ENHL Bonatti will also aim to explore other business opportunities that may arise from growing investments by multinational companies in Mozambique's nascent energy sector. ENH CEO Eduardo Naiene hopes that Bonatti's experience will benefit ENHL by bringing greater quality to the services in ENHL's core business, including engineering, construction and management of remote fields.

The Italian government appears to have increased its efforts to entice Italian companies to invest in the country. As well as highlighting the attractions in investing in Mozambique's substantial natural resources—including coal, natural gas and precious stones—the Italian Ministry of Foreign Affairs is encouraging investment in the country's power, infrastructure, agriculture and tourism sectors.

To date, there are about 40 Italian companies active in Mozambique, mainly in the hydrocarbons, construction, tourism, logistics and transport and consumer goods industries, with investments totaling about €130 million. The Italian government continues to treat Mozambique as an investment destination with further potential—often referred to as a growing economy, and a market that offers opportunities in diverse sectors, including agriculture, aquaculture, manufacturing, renewables and financial services.



In July 2015, Mozambique and Italy established the Chamber of Commerce Mozambique-Italy (CCMI), which aims to support the Mozambican economy through private sector investments. At present, Mozambique's main investment sector is energy, closely followed by infrastructure and construction, and logistics and transport. However, in the longer term, with the consolidation of Mozambique's reputation as a regional energy hub demand for other industries will increase, including agri-business, tourism, furniture, fashion and design.

Unindustria, an Italian provincial association of manufacturers and enterprises, claims that Mozambique is currently one of the most attractive countries in Africa for small- and medium-sized enterprises (SMEs). The association's Vice President believes that the country's large natural gas reserves and mining resources will increasingly attract foreign investment, which in turn will create attractive opportunities for SMEs throughout all sectors, not just the extractives.

Should Mozambique meet its potential and continue to attract Italian investment, it's conceivable that an increasing number of Italian nationals will relocate to Mozambique, both temporarily and permanently. A growing Italian diaspora would also serve to create opportunities in other sectors, and result in the potential establishment of Italian schools, shops and restaurants.

Notably, the Italian Ministry of Foreign Affairs believes that Mozambique's food industry remains an attractive business prospect. Currently the majority of food products are imported from neighbouring countries. However, with an increase in the number of foreigners, and an expected general increase in the standard of living, there are significant opportunities for the marketing of Italian food products.

Due to Eni's influential position in Italy's political and business sphere, relations between Mozambique and Italy will only grow closer in the coming years. Both countries appear to be emphasising the benefits of increasing private sector cooperation and investment. Italy's increasing interest in Mozambique will also come as a relief for the Mozambican government, particularly as it struggles to recover from a high-profile debt scandal that emerged in 2016.

Furthermore, the fact that the Coral South FLNG project has attracted financing from 15 banks—despite its inherent technical and political risks—has demonstrated that, despite the country's ongoing economic and financial issues, there is still belief in Mozambique's investment climate.

Despite efforts to increase investment in Mozambique, significant challenges remain, including the presence of widespread corruption, poor infrastructure, a shortage of skilled workers, and, above all, a pervasive influence of the political elite. Ultimately, whether these legacy issues will persist or be eroded depends on how Italian interests leverage opportunities in Mozambique. Will they feed to underlying problems or demand transparency?

# The Chinese giant taking over energy markets

Oil & Price, 18.09.2017



Last week's announcement of the US\$9-billion acquisition by Chinese CEFC of a more than 14-percent stake in Rosneft sent ripples across the oil industry and among commodity traders.

The Chinese conglomerate, which started as a small oil trader, bought the stake from none other than Glencore, which acquired it at the end of last year in tandem with the Qatar Investment Authority. The deal, besides making Glencore's lenders breathe a deep sigh of relief, considerably expanded the access of the Chinese company to Russian oil.

And it's not the last buy in Russia, it seems. Just a week after the Rosneft buy, Reuters reported that CEFC is preparing to take part in the initial public offering of En+, a metals and power company controlled by billionaire Oleg Deripaska, which focuses on aluminum and hydropower. According to unnamed sources, the Chinese company sought ways to increase its exposure to the Russian natural resources sector.

Earlier deals include the US\$899-million buy of Emirati ADCO (Abu Dhabi Company for Onshore Petroleum Operations Ltd.) earlier this year; a US\$110 million purchase of oil and gas blocks in Chad, completed last year; the US\$138-million acquisition of China Natural Gas Corp. and the US\$311-million purchase of local Anhui Huaxing Petrochemical Co, both sealed in 2015. Also in 2015, CEFC bought KMG International, a Romania-based venture of local Rompetrol and Kazakhstan's state oil major Kazmunaygaz for US\$680 million.

CEFC has also bought some financial services companies over the years, but it seems to have a clear focus on natural resources—primarily oil and gas. Many industry observers wonder where the money for these acquisitions is coming from. Bloomberg's Aibing Guo and Helena Bedwell, in an extensive analysis, suggest that Beijing is providing CEFC with heavy support, possibly even financial.

Oil and metals are a priority investment area under the Belt and Road global expansion program, so it's no wonder CEFC is being encouraged to buy more assets in these industries. Belt and Road aside, Chinese producers are all looking abroad for new oil production as local fields creep nearer to depletion and production costs rise.

In this shopping spree context, the question of whether CEFC could be among the prospective buyers of Saudi Aramco is particularly fascinating. Chinese companies aren't, as a rule, known for their willingness to pay huge premiums on their acquisition targets' price. But a hefty premium is what Riyadh will look for in the upcoming IPO of its state oil giant, given the discrepancy between the internal valuation of Aramco, which is about US\$2 trillion, and external valuations, some of which peg the value of the company at below US\$1 trillion.

Traditionally, state oil majors such as CNPC and Sinopec have been the ones in charge of China's global commodity expansion, but judging by CEFC's latest moves that are obviously being made with Beijing's blessing, it's not unthinkable to see it in the future as a potential challenger for the big oil traders, whether that be in the Aramco IPO or in other lucrative deals.

## China's CNOOC Begins Oil Partner Hunt in Mexico Deep Waters

Rigzone, 15.09.2017



Cnooc Ltd. is searching for partners to develop oil prospects deep into the Gulf of Mexico as the Chinese giant extends its global reach.

After bidding alone for exploration rights in Mexico's first-ever deep-water auction in 2016, Cnooc is seeking deals known as farmouts, a common type of joint venture where a stake in an oil prospect is exchanged for help with drilling and production. The company has yet to choose partners, a Beijing-based spokeswoman for Cnooc said Friday. China, the world's biggest oil consumer after the U.S.,

Has sought a foothold in crude production everywhere from Africa to Canada as it looks to ensure supplies to its fast-growing economy. Several Latin American countries like Venezuela and Brazil have taken advantage of China's thirst for crude to secure investments or loans that haven't always been easy to obtain elsewhere.

Cnooc is the first foreign producer to seek a farmout in Mexico since the opening of the country's oil industry to competition, following decades of a monopoly in the hands of state-owned producer Petroleos Mexicanos. "It makes sense" that Cnooc would seek a partner, Juan Carlos Zepeda, Mexico's oil commissioner, said in a phone interview from Mexico City. "It's logical because in deep waters, companies normally develop the projects in consortium groups or partnerships."

If Cnooc seeks a partner to act as operator in one or both of its deep water oil areas, it would have to be approved by the country's oil regulator, Zepeda said. The company was awarded two blocks just south of the U.S.-Mexico maritime border in an area known as the Perdido Fold Belt, where Mexico estimates the bulk of its untapped oil potential is located. It's one of the deepest exploration areas in the world.



Sixty-six companies have won rights to develop oil and natural gas in Mexico since the country passed final legislation to end the Pemex monopoly in 2014. The new oil and gas contracts could bring in as much as \$59 billion in investment for the country, Energy Minister Pedro Joaquín Coldwell said last month.

Cnooc, which has been an active participant in other Mexico oil auctions, is one of 16 companies qualified to bid to partner with Pemex in three fields where the country's state-owned operator is seeking joint ventures next month. In the Dec. 2016 deep water auction, Cnooc was the only company that won oil areas as a lone bidder, while companies such as Total SA, Exxon Mobil Corp., and Chevron Corp. won rights to develop Mexican crude as part of consortium groups.

## Uganda signs oil exploration deal with Australia's Armour energy

Reuters, 15.09.2017



Uganda signed an oil exploration deal with Australia's Armour Energy Limited on Thursday, the first under a protracted competitive licensing round launched in 2015.

The production-sharing agreement covers Kanywataba block, a 344-square-kilometre area in the Albertine rift basin near the border with Democratic Republic of Congo, officials said at the signing in the Ugandan capital Kampala. Kanywataba was previously licensed to existing operators, Frances' Total, China's CNOOC, and Britain's Tullow. But the three firms, which now own all of Uganda's crude discoveries, gave back control of the block to the government.

Energy Minister Irene Muloni said low oil prices meant "protracted negotiations" with firms that participated in the licensing round. At the launch of the round, six blocks covering 2,674 square kilometres were offered and 19 firms initially expressed interest.

Four - Armour and three Nigerian firms - emerged as winners, and Armour is the first to sign an agreement with the government. Muloni said the cabinet had already approved deals with one of the Nigerian firms, Oranto Petroleum International, and the government expected to sign deals with the company in three weeks' time.

Uganda discovered petroleum in the Albertine basin in 2006. Gross reserves are estimated at 6.5 billion barrels and recoverable oil estimated at between 1.4 billion-1.7 billion barrels. The first batch of licences awarded in the early 2000s were handed out on a first come, first served basis.



But after the discovery of commercial deposits Uganda enacted new laws to manage the sector. Under those laws exploration licences must be granted on a competitive basis. Crude production has been repeatedly delayed by tax spats and disagreements over development strategy. It is now expected in 2020 when an export pipeline through neighbouring Tanzania is due to be completed.

“The exploration and development of oil in Uganda is a very exciting opportunity for us,” Armour’s Chief Executive Roger Cressey told the press conference. Armour’s exploration license is valid for four years.

## India plans larger oil auctions as Modi pursues import cuts

Rigzone, 14.09.2017



India will offer larger areas with higher oil and natural gas reserves in the next auction of discovered fields later this year as Prime Minister Narendra Modi’s government seeks to curtail rising crude oil imports.

“The next round would be meatier, bigger and players can expect even better fields,” Atanu Chakraborty, head of oil regulator Directorate General of Hydrocarbons, said in an interview. “The reserves are twice of that we offered in the first auction round, on a very conservative estimate.”

India last year offered 67 small oil and gas fields holding about 625 million barrels of reserves in its first auction in six years allowing new entrants such as drugmakers and engineering companies to try their hand at boosting local production. The government also relaxed rules by allowing pricing freedom for oil and gas and a uniform policy for extraction of all hydrocarbons under a single license to encourage investments.

“We want to create a lot of E&P companies in India,” Chakraborty said in an interview in London last week. “One mustn’t forget Cairn was created out of India and we want more of them.” Cairn Oil & Gas, now a unit of billionaire Anil Agarwal’s Vedanta Ltd., is producing more than a quarter of India’s crude oil output through the six blocks it operates in India, according to its website.

Modi, who is targeting a 10 percent cut in oil imports by 2022, has a lot of work ahead. A burgeoning appetite for energy has increased India’s import dependence to 82 percent last year from 76 percent five years ago. The International Energy Agency estimates India will be the fastest-growing oil consumer through 2040.

The government is pushing for higher local production and greater use of natural gas and alternative fuels to reduce the strain on its finances and achieve greater energy security. The South Asian nation's oil imports are estimated to touch \$85 billion in the year to March 2018, according to India's oil ministry.

India is also seeking to tap unlocked reserves by extending exploration to cover its entire sedimentary area of about 3.14 million square kilometers (1.2 million square miles), less than half of which has been appraised so far.

Modi's cabinet on Tuesday approved spending more than 29 billion rupees (\$452 million) for appraising new areas with limited data. The Directorate General of Hydrocarbons has created a data bank of the nation's sedimentary basins and has launched an open-acreage licensing program that gives explorers the freedom to carve out areas for exploration.

"People have made their expressions of interest to work in about 50,000 square kilometers," according to DGH's Chakraborty. "This is unprecedented interest. The area would go out for bidding in November."

About 100 companies, including some international oil explorers, have purchased data for the Indian sedimentary basins. The country is targeting completing the bidding by March, he said. "Indian market is a major attraction for those who are buying the data," Chakraborty said. "In India, the demand risk is zero, the revenue risk is zero -- who won't want to be right in the middle of such a market?"

## Oil Price Volatility Is Set To Return

Oil & Price, 18.09.2017



**Oil markets could experience more intense price volatility in the coming years because of insufficient investment in new production, according to the head of the International Energy Agency's oil market and industry unit, Neil Atkinson.**

Speaking at a conference in Manama, Bahrain, Atkinson noted that investment is returning to the oil industry too slowly to eliminate the risk of tighter supply that would, in turn, cause price volatility even in the context of slowing global oil demand growth. Over the next five years, it is not impossible to see a return to the high oil prices.

In its latest Oil Market Report, released last week, the IEA said crude oil demand had grown by 2.3 percent on an annual basis in the second quarter, which prompted an upward revision of the overall growth rate for 2017 to 1.6 million bpd. The revision boosted oil prices, with Brent once again above US\$55 a barrel for the first time in about five months.

Atkinson noted at the Manama conference that although over the medium term the rate of demand growth will slow, it may do so from a higher point than previously forecast, in tune with the new demand growth revision. What's more, over the longer term, to 2040, the IEA forecast the share of oil in the global energy mix will decline only slightly, from 33 percent in 2015 to 31 percent in 2040, which means stable growth in demand as part of the growth in wider energy demand.

The problem with new investments, however, remains. Bahrain's oil minister, speaking at the same event as the IEA official, said that although prices have improved lately, they are not high enough to motivate sufficient investment in new production. Bahrain's top oil man is not the only one warning about a possible supply crunch, but given these officials' vested interest in the effect of supply crunches on prices, their comments are better taken with a pinch of salt.

## US oil rig count decreases by 7 this week

Anadolu Agency, 16.09.2017



**Number of oil rigs in the U.S. decreased this week, Baker Hughes data showed on Friday.**

**American oil industry took offline seven oil rigs during Sept. 11-15 period, according to the oilfield services company. This brought the total oil rig count in the country to 749. Oil rigs in the U.S. have now decreased four times in the past five weeks. Number of rigs in the country provides an indication of the oil sector's well-being in the country, and signals possible short-term production cuts and increases. Crude oil production in the U.S. last week rebounded from the sharp decline the week before.**

After falling by 749,000 barrels per day (bpd) for the week ending Sept. 1, oil production in the U.S. recovered last week by rising 572,000 bpd to 9.35 million bpd for the week ending Sept. 8. With the decline in oil rig count, crude prices increased slightly on Friday.

International benchmark Brent crude rose to as high as \$55.85 a barrel, while American benchmark West Texas Intermediate climbed as much as \$50.12 per barrel.

## BP begins natural gas deliveries to Mexico

Anadolu Agency, 20.09.2017



BP Energía México, BP's natural gas marketing and trading arm in Mexico, started to deliver approximately 200,000 million British Thermal Units per day (mmbtu/d) of natural gas to Mexico, the company announced.

The company said that the gas is delivered to industrial users, local distribution companies and independent power producers in eight states in Mexico. This makes BP one of the first private companies to supply natural gas to the domestic market under the country's energy reform measures.

Deliveries have begun across Nuevo Leon, Coahuila, San Luis Potosi, Veracruz, Mexico State, Guanajuato, Tamaulipas and Queretaro.

In December 2016, BP participated in Mexico's first tender for deepwater licenses, winning interests in two exploration blocks in Cuenca Salina in the southeast Basin. In March, BP opened its first fuels retail site in Mexico and plans to open around 1,500 sites across the country over the next five years.

## Can oil prices hit \$60 in 2018?

Oil & Price, 20.09.2017



With Brent oil prices hovering right around \$55 per barrel—the highest level in months—the oil market has picked up momentum. There are plenty of pitfalls ahead, but the underlying fundamentals offer some reasons to be slightly bullish on crude.

As the IEA mentioned, global oil supply fell in August by 720,000 bpd, a sizable decline that has chipped away at the global surplus. Also, demand continues to rise; the agency had to revise up its forecast for the year for demand growth to 1.6 million barrels per day (mb/d), from 1.5 mb/d a month.

But the more intriguing trend is the global decline of refined product stocks, a drawdown that has picked up pace over the past three months. The IEA estimates that OECD refined product stocks stood just 35 million barrels above the five-year average in August, down by two thirds from the 103-million-barrel surplus at the start of the year.





As mentioned before, demand appears to be strong, which the IEA says is the result of “robust economic growth in Europe, the US and Asia.” U.S. gasoline consumption in June, for example, was 665,000 bpd higher than a year earlier. The IEA said it’s possible that refined product stocks would fall back within the five-year average before the year is out.

However, there are a few caveats to consider, which might help explain falling OECD refined product stocks and don’t necessarily point to bullishness in the market for crude. For instance, there were significant refinery outages in Germany, Greece, Mexico and the Netherlands—which, as the IEA points out, are all part of the OECD. With refining runs abnormally down, refiners drew down on storage. Some of those outages could be restored, easing the pressure on inventories.

Also, Hurricane Harvey will result in a one-off draw on stocks, albeit a potentially large one. The massive disruption of refining operations along the Gulf Coast left refined product production severely down. Most refineries have resumed operation, but some are still running at reduced rates.

One other small caveat: The “five-year average” itself continues to rise, a reflection of the fact that the past five years increasingly encompasses surplus years. What is “normal” for storage is a moving target, a definition that is continuously revised up. In that sense, as time passes, it will be easier and easier for storage to look more “average.”

But with those caveats out of the way, the market looks to be on sounder footing than at any point in recent memory. That has corresponded with a rise in crude prices to their highest level in months: \$50 per barrel for WTI and \$55 for Brent.

Crude inventories are still elevated, but they started from a higher baseline than refined products. And while the drawdown in gasoline and diesel has occurred at a faster rate than for crude, it can also be considered as a precursor to steeper declines in crude inventories. As refineries deplete their storage, they’ll step up processing in order to avoid a shortage. As the IEA put it: “The fact that product stocks are approaching the five-year average shows that market rebalancing is under way and sends a signal for refiners to increase crude runs, which could in turn reduce commercial crude stockpiles.”

This checks out with data regarding short-term floating storage levels, which the IEA says is now below five-year average levels and has actually declined to its lowest point since December 2014. Floating storage is a more expensive way to store crude, and as such, will be first to draw down. The fact that the Brent crude futures market has flipped into a state of backwardation—a situation in which near-term contracts trade at a premium to futures further out—has likely accelerated the depletion of storage. If oil prices a year out are lower than they are today, it makes no sense to store oil.

Nevertheless, some analysts see the latest market tightening as seasonal and perhaps transitory. In a research note, Harry Tchilinguirian, head of commodities strategy at BNP Paribas, wrote that the “oil market will continue to struggle with excess supply,” and WTI will average less than \$50 per barrel through 2018. “While demand seasonality in the summer worked to reinforce the impact of supply restraint by producers, the autumn will work against OPEC’s efforts as oil product demand and refinery crude throughputs decline.”





# Baker Hughes, KBC to share solutions for oil, gas sector

Anadolu Agency, 19.09.2017



Baker Hughes, a GE company and KBC, a wholly-owned subsidiary of Yokogawa Electric Corporation, partnered to provide solutions for better performance in the oil and gas sector, the companies announced Tuesday

Integrating KBC technology with Baker Hughes' suite of digital solutions will allow customers to reduce bottlenecks in facilities, processes and equipment to achieve optimal production and lower risk. Their partnership will involve process simulation, asset performance management and operational software solutions

"Leveraging GE's Predix, the platform for the industrial internet, to deliver one unified view, this partnership extends KBC's Petro-SIM process simulation modeling further into the full stream oil and gas value chain, and provides connectivity between operations, assets, people and business processes for end-to-end optimization," according to the GE announcement.

By integrating data analytics between facilities and operations, the time spent in operations will be significantly reduced and the insight gained will increase production, reduce energy usage and improve product quality consistency. The integration of KBC's process simulation and models with Baker Hughes' analytics, digital twins, full stream software and Predix provides real-time congruence between the digital and physical worlds, according to the announcement.

A plant's digital twin, enabled by this partnership, will enable efficient workforce management, allowing personnel to focus on critical plant operations.

# Submersible drone to detect, prevent oil p/line spills

Anadolu Agency, 16.09.2017



New drone technology dubbed the ‘Naviator’ for pipeline inspections and monitoring is the first of its kind allowing rapid deployment in the air and underwater to both detect and timely intervene in oil spills to contain further disasters, according to PhD, Professor, Mechanical & Aerospace Engineering at U.S. State University of New Jersey, Rutgers.

Professor F. Javier Diez told Anadolu Agency in an exclusive interview that this new capability of rapid response in air and water means they can investigate any malfunction in the underwater infrastructure quickly saving time and money.

“.. We believe the Naviator is the first of its kind, representing a technological leap in vehicles as it can be rapidly deployed in the air, travel to a destination and transition underwater for search and rescue, bridge inspections, ship and port inspections and oil and gas operations in the sea,” he said.

Diez said this technology would allow for reduction in costs and time required to conduct inspections. “Instead of taking hours or days before a remotely operated underwater vehicle (ROV) or a human crew can be dispatched, the Naviator can be there in a matter of minutes. As a result, many disasters can be averted by being proactive and reacting quickly to early warnings,” he stressed.

Inspections with the drone can be carried out more rapidly and at a greater frequency and even in bad weather compared to conventional methodologies that involved ROVs. The Professor said that it would also reduce the number of vehicles to carry out some missions. Before the new drone technology, deploying underwater vehicles required the use of ships/boats or even airplanes for the ROVs. Similarly, recovery necessitated the use of boats and multiple people to recover the ROV, he explained. However he added that with an air/water vehicle like the Naviator, there is no need for multiple vehicles for deployment and recovery.

“It [Naviator] can further be deployed during bad weather which allows for new missions not currently possible,” he added. Over 15 people are currently working on the Naviator vehicle that was developed at Rutgers’ School of Engineering with funding from the U.S. Office of Naval Research. The project was showcased as a cutting-edge technology program at the 2017 Naval Future Force Science and Technology Expo in Washington, D.C., on July 20-21. The drone was used to conduct a test air/water flight from a 100-passenger car ferry vessel at the Cape May Ferry Terminal on June 21-22, 2017.

Additionally, the Naviator drone also successfully performed an underwater bridge inspection at the Delaware Memorial Bridge Twin Spans on June 20, 2017, with the Delaware River Bay Authority, in collaboration with leading national research Rutgers university, in New Brunswick along with the drone license owner and aircraft manufacturer, SubUAS LLC .

He explained that the SubUAS LLC Company was founded in 2016 to commercialize the new drone technology developed by Rutgers. SubUAS LLC has an exclusive license for the commercial/military development of Rutgers' patented air/water drone technology. The original concept for the underwater drone with very little human interaction was developed in the fall of 2012 and first tests were completed in 2013.

In recent years, other groups around the world have made many attempts and have succeeded in making some progress, Diez said. "We are currently doing a round of investment with a lot of interest from the oil and gas industry in the U.S.," he said.

## Global energy consumption to rise 28% btw. 2015-40: EIA

Anadolu Agency, 16.09.2017



Global energy consumption is expected increase by 28 percent between 2015-2040, the U.S.' Energy Information Administration (EIA) said in its report.

Most of the growth in energy consumption is estimated to come from countries that are outside of the OECD, the EIA said in its International Energy Outlook 2017 that was released Thursday. "Non-OECD Asia, including China and India, alone accounts for more than half of the world's total increase in energy consumption over the 2015 to 2040 projection period,". World GDP is forecast to increase by 3 percent each year between 2015 and 2040.

The combined GDP in non-OECD regions is expected to rise by 3.8 percent every year between that period, which will also drive growth in energy consumption in that region.

In the OECD regions, on the other hand, GDP growth is anticipated to be 1.7 percent during that period, due to slow or declining population growth. Among all energy resources, renewables' consumption is expected to increase by an average of 2.3 percent every year between 2015 and 2040 to become the world's fastest growing energy source.

This will be followed by nuclear energy with a 1.5 percent per year consumption growth rate during that period. Fossil fuels, however, will not lose their dominance in the global energy mix. "Although consumption of non-fossil fuels is expected to grow faster than fossil fuels, fossil fuels still account for 77 percent of energy use in 2040," the report said.



Natural gas is expected to be the fastest-growing fossil fuel with an estimated consumption increase rate of 1.4 percent a year between 2015-2040. “Abundant natural gas resources and rising production—including supplies of tight gas, shale gas, and coalbed methane—contribute to the strong competitive position of natural gas,” the report explained.

Crude oil, petroleum and other liquids will remain the biggest source of global energy consumption, but their share is already set to decline. While oil and liquid fuels constituted 33 percent of energy consumption in the world in 2015, this level is forecast decreasing to 31 percent in 2040, according to the report.





# Announcements & Reports

## *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

Supported by PETFORM

## *16<sup>th</sup> ERRA Energy Investment and Regulation Conference*

**Date** : 25 - 26 September 2017  
**Place** : Astana - Kazakhstan  
**Website** : <http://erranet.org/conference/investment-conference-2017/>



## *European Gas Summit*

**Date** : 26 - 27 September 2017  
**Place** : Rotterdam - The Netherlands  
**Website** : <https://www.platts.com/events/emea/european-gas/index>

## *Global Oil & Gas South East Europe & Mediterranean Conference*

**Date** : 27 - 28 September 2017  
**Place** : Athens, Greece  
**Website** : [www.global-oilgas.com/SEEMED/](http://www.global-oilgas.com/SEEMED/)

## *International Conference on Petroleum Industry & Energy*

**Date** : 28 - 29 September 2017  
**Place** : Istanbul, Turkey  
**Website** : [www.waset.org/conference/2017/09/istanbul/ICPIE](http://www.waset.org/conference/2017/09/istanbul/ICPIE)



## *IADC Drilling Middle East Conference & Exhibition*

**Date** : 03 - 04 October 2017  
**Place** : Dubai  
**Website** : [www.iadc.org/event/me2017/](http://www.iadc.org/event/me2017/)

## *7th Iraq Oil & Gas Conference*

**Date** : 28 – 30 November 2017  
**Place** : Basrah, Iraq  
**Website** : <http://www.basraoilgas.com/Conference/>