



## Week in Review

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**In National News:** This week we consider how for the first time since 2010 the USA registered an increase in its oil imports. [US oil production decreased to around 9 million bbl/d](#) in the first half of 2016, as imported oil came primarily from OPEC countries. This should be good news for [Saudi Arabia](#), one of the biggest OPEC members, whose state finances are suffering lately. On a similar note, during an official meeting [Venezuelan President Maduro and the Iranian president Rouhani](#) agreed on the need for production and price fixing among OPEC countries. Lastly, India wants to improve its solar energy production. [President Modi's government](#) is introducing a new set of incentives for foreign companies to invest in his country. Currently India is quite behind in terms of solar energy use, and the government plan is aimed at both improving this situation and at attracting foreign investments.



*President Dmitry Medvedev took part in a ceremony marking the start of construction of the Nord Stream gas pipeline's underwater section*

*Source: The Kremlin*

**Companies Sink or Swim:** Growing uncertainty envelopes the future of Gazprom's [Nord Stream II](#). The company would like to develop the project, but the idea is met with strong opposition from several European countries headed by Poland. They claim that such a project is against the European principle of Energy Union, and that the only real aim of the project is that of excluding Ukraine as a transit country for gas, and consequently depriving it from several billion US\$ of transit fees. Things are grim for [General Electric](#) too. The company is not going to meet its objective earnings in 2018 and its CFO stated that the division supplying products and services for the oil and gas industry is being hampered by market conditions. Lastly, [Shell](#) sold much of its Canadian reserves in an attempt to keep down rising debts.

**Trends are Changing:** Technological developments continue to drive energy trends in new directions. The recent explosion of drones into commercial and industrial markets is promising [massive potential in the hydrocarbons industry](#), where it can alleviate and expedite the lengthy and costly exploration and mapping process, which constitutes a serious burden on companies in the early stages of project development. Conversely, developments are also being made away from hydrocarbons, as [new advancements](#) by top engineers are bringing us closer to realizing fusion power. New records are being set, but it remains uncertain whether the 'silver bullet' of energy production can truly be achieved.



## The Week in Review

### **U.S. Crude Oil Imports Increase in the First Half of 2016, the First Time Since 2010**

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*In the first half of 2016, U.S. gross crude oil imports increased by 7%, with an additional 528,000 bbl/d, compared to the first half of 2015. It is the first such increase since 2010, reversing the multiyear trend that saw a decrease in U.S. crude oil imports caused by increased U.S. oil production. The increased oil imports came primarily from OPEC countries, specifically, Nigeria and Iraq. A decline of more than 118,000 bbl/d from Mexico was offset by an increase in imports of Canadian oil, resulting in an overall increase of 24,000 bbl/d in oil imports from non-OPEC countries. The price of crude oil was a significant factor behind the increase in U.S. crude oil imports. The narrowing price differences between U.S. crudes and international benchmarks provided an incentive for increased exports by refiners in places where imported crudes now have a delivered cost advantage relative to similar domestic crudes. Lower overall crude prices were also a contributing factor in the decline in U.S. crude oil production from an average of 9.5 million bbl/d in the first half of 2015 to 9.0 million bbl/d in the first half of 2016.*

[\*Mike Leahy, 2016. U.S. Crude imports increase during first half of 2016, first increase since 2010. U.S. Energy Information Administration, 21 October, 2016.\*](#)

### **Saudi Arabia Fears Bankruptcy**

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*The golden age of unlimited wealth seems to have passed as Saudi officials coming to terms with reality. The kingdom ran a record high budget deficit of US\$ 98 billion last year with an estimated \$87 billion forecasted for this year. The Saudi government has responded to this downfall with measures unseen in the Kingdom's history. A change to the Gregorian calendar led to ordinary workers losing 11 days of payment annually. Government officials have also experienced 30% salary cuts. The government now hopes for successful talks at the upcoming OPEC meeting in November. Speaking at the annual Oil and Money conference in London on October 19, Saudi Arabia's energy minister Khalid al-Falih said that it was the right time for OPEC to retake control of the market and that the two years' oil price downturn was become unhealthy for future production. Indeed, he advocates for a significant improvement in the oil market i.e. higher prices and less volatility. According to Khalid al-Falih, the world is not shielded from an oil shortage due to a decrease in investment and higher production costs from US shale to Brazilian deep-water production. "The trajectories of supply and demand that are coming... there will be potentially a shortage of supply", Mr Falih said.*

[\*Tim Daiss, 2016. 'We're Doomed To Bankruptcy Unless Changes Made,' Says Saudi Official. Forbes. 23 October, 2016.\*](#)

[\*Financial Times, 2016. Saudi oil minister calls an end to price 'downturn'. Financial Times. 19 October, 2016.\*](#)

### **Venezuela is Looking for Dialogue**

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*The Venezuelan president Nicolas Maduro called to a strengthening of the cooperation between oil producing countries to stabilize prices, stating during his meeting with the Iranian president Hassan Rouhani that it's necessary to increase dialogues with the OPEC and non-OPEC members, and to find the right agreement to stabilize prices. President Rouhani remarked that Iran will hold up all actions to stabilize the oil market, to insure the right prices and right quotas. For several years now, Venezuela has faced economic and political crisis which increased with the glut in oil prices.*

[\*Prix du Baril, 2016. Cours du baril: Venezuela, Venezuela Wants to Reinforce the Cooperation To Stabilize The Price Of Oil. Prix Du Baril. 23 October, 2016.\*](#)



## India: Solar Panels to Boost Economy and Green Energy

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India is now making efforts to increase green energy. Prime Minister Modi's new plan includes increased domestic production of solar panels and expanding solar capacity throughout India. The plan called the Prayas Initiative sets several long-term goals to increase India's solar power capacity to 100 GW by 2022. Current solar power capacity for India, which lags behind other countries in terms of renewables, is 45 GW. The plan hopes to boost the industry domestically through government funding as well as involving individual households. With increased government funding, the hope is that local companies will be motivated to increase production and eventually compete with Chinese production of solar panel components, which may eventually lead to India rivalling China for some of its market share. The government funding provides an incentive for many foreign companies to invest. Japanese SoftBank Group is considering what may be billions of US\$ worth of investment for this project. The Prayas initiative will then not only boost green energy in India but it will boost economic growth and create thousands of jobs.

[Michael McDonald, 2016. India to Ramp Up Solar Investment in 2017. Oilprice.com. 21 October, 2016.](#)

## General Electric Cuts Forecasts

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General Electric has warned that it will be difficult to reach its 2018 objective earnings. GE, the largest US manufacturer, warned that revenues and operating profits for the year would be lower than it had projected; GE's CFO stated that conditions for the division supplying products and services for the oil and gas industry have been hampered. The oil and gas division, built up with a series of acquisitions before the crude price crashed in 2014, reported a 43% drop in operating profits to US\$ 353 million, although other oil services providers such as Schlumberger and Halliburton have suggested conditions are now improving.

[Ed Crooks, 2016. GE cuts forecasts amid oil and gas weakness. Financial Times. 21 October, 2016.](#)

## Is Gazprom's Nord Stream II Still Happening? Not According to the EU

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Nord Stream II, a gas pipeline that would connect Germany with Russia via the Baltic Sea, is still on Gazprom's to-do list despite the deal being struck down by Polish lawmakers for potentially monopolizing the European natural gas market. The five biggest financial backers, energy companies Royal Dutch Shell, OMV, BASF, Uniper, and Engie, have pulled their support for the proposed pipeline following Poland's decision, yet Gazprom has indicated that the Nord Stream II is still happening. The project is a part of a series of wider energy distribution deals and proposed pipelines that aim to increase its market share in the European energy market while at the same time give it further leverage over the EU countries who depend on Russian natural gas. Poland, which has always opposed the deal since it was first announced in 2015, has received support from eight fellow EU member states; the Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Romania, and Slovakia, who all believe this project undermines European solidarity and the EU's proposed Energy Union. The Financial Times commented that it "...is difficult to see Nord Stream II – on which it signed initial agreements with European partners last year – as anything other than a geopolitical game... Gazprom's projects appear aimed at ending Ukraine's role as a transit country for Russian gas, by the time the current transit contract with Kiev expires in 2019. That might seem understandable given the impact of past gas squabbles between the two countries. But it also serves the Kremlin's agenda by stripping Kiev of several billion dollars a year in transit fees".

[Konrad Szymanski, 2016. Russia's gas pipeline threatens European unity. Financial Times. 21 October, 2016.](#)

[Damir Marusic and Jamie Horgan, 2016. Why is Gazprom so intent on Nord Stream II? The American Interest. 30 September, 2016.](#)



## Shell to Sell Canadian Shale Assets

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*Royal Dutch Shell has sold some of its Canadian reserves for US\$ 1 bln. The deal involves selling 206,000 acres of developed and undeveloped land in the Gundy area of Northeast British Columbia and the Deep Basin area of west central Alberta to Tourmaline Oil of Canada. This deal represents the first big sell off of upstream exploration and production assets under Shell's drive to contain rising debts after its merger of BG Group last year. The deal has pushed Shell's debt-to-equity ratio close to the group's self-imposed limit of 30%. However, Shell still has not completely withdrawn from Canada, as it owns assets located in the Montney and Duvernay fields.*

[\*Andrew Ward, 2016. Shell to sell Canadian shale assets for \\$1bn to cut large debts. Financial Times. 21 October, 2016.\*](#)

## Drones to Benefit Oil and Gas Industry in Geological Surveys

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*The Permian Basin in West Texas produces 70% of all of Texas' oil. One exciting new feature at the Permian Basin International Oil Show this year was drone technology. A company called West Co., a subsidiary of Louisiana based Landpoint, a surveying company, has been using drones for geological surveys for the oil and gas industry for slightly over a year. The drones, which cost US\$ 60,000, collect millions of complex 3-D images to map an area. The data images collected are more precise and higher resolution than Google Earth images. Drones are an important development for the oil and gas industry, particularly because of the costs savings and the speed of the data supplied. Drones used for surveying, which is a crucial part of the exploration process, are useful for mapping well exploration and pipeline sites. Drones can also be used throughout the life of oil and gas projects, as they can detect methane leaks or corrosion on pipelines. With the addition of various sensors their uses are numerous. New drone technology will save money and time for the industry, a sign that they will be key tools in the future.*

[\*Trevor Hawes, 2016. When it Comes to Plotting Land, Surveyors Head to the Sky. Midland Reporter-Telegram. Mrt.com. 20 October, 2016.\*](#)

## Fusion Getting Closer

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*MIT is pushing forward for improving fusion technology. In their latest test, they achieved a higher level of plasma pressure, setting a world record. Some scientists consider fusion as the ultimate resource for providing energy. In a push for clean energy, nuclear is often seen as a good alternative to burning hydrocarbons, albeit with the unfortunate result of hazardous waste in the long term. The aim of the experiment is to create a self-sustaining nuclear reaction, like those constantly happening on the sun and on other stars. As of now it takes an incredible amount of energy to force nuclei to fuse. The MIT experiment was made in a small size reactor, however there are plans to replicate and use this technology on a much bigger scale. In southern France, a huge reactor able to use fusion is being built. It's called ITER and it is estimated to produce 800 times more energy than MIT's experiment while implementing similar magnetic technology. MIT's results are therefore significant as they show that the high pressures required for burning plasma can be best achieved with highly magnetic fields.*

[\*Damian Carrington, 2016. MIT nuclear fusion record marks latest step towards unlimited clean energy. 17 October, 2016\*](#)



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