



# IEEJ e-NEWSLETTER

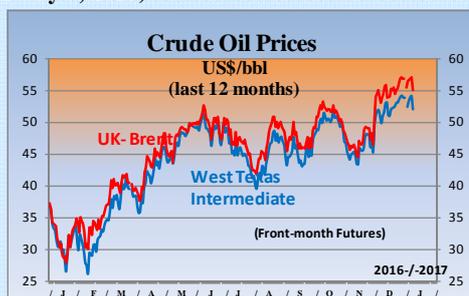
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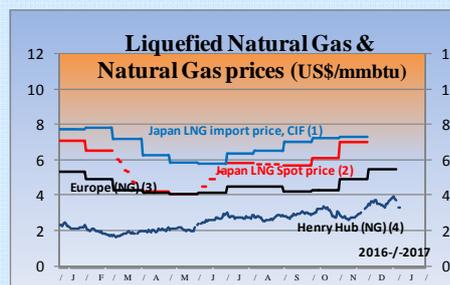
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Source: DOE-EIA, Financial Times, NASDAQ



Sources:

- (1) Ministry of Finance "Japan Trade Statistics"
- (2) Ministry of Economy, Trade and Industry (contract month basis)
- (3) Estimated by World Bank and World Gas Intelligence
- (4) DOE-EIA, NYMEX (Front-month Futures)
- (5) Investing.com



Source: x-rates.com



Source: Financial Times

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**2017 New Year Message  
from  
IEEJ Chairman & CEO Masakazu Toyoda**

**“Challenges for Japan and other countries for 2017”**

A Happy New Year.

Thanks to the support of everyone, the Institute of Energy Economics, Japan enjoyed a successful 2016, which also marked our 50th anniversary. In 2017, we must start building the base for the next 50 years. The energy situation is shifting dramatically, both in Japan and overseas, and various challenges are emerging. Particularly, the start of the Trump administration in the United States may lead to changes in energy and environmental policies. In starting the year, I would like to present five domestic and overseas challenges that the Japanese government and companies will be tackling.

First, the most important challenge for Japan is to achieve the energy mix and to review the Strategic Energy Plan. The greatest threat to achieving the energy mix is the delay in restarting the nuclear power plants. Some nuclear plants that had restarted with the approval of the Nuclear Regulation Authority were later ordered to stop operation by a provisional ruling by a district court. The cautious stance of some municipalities is also a concern. The key points are how to make the public recognize the importance of nuclear power for energy security and climate change prevention, and how to regain their trust in nuclear safety. Steady progress in restarting the nuclear power plants in Japan would reassure those Asian countries that are preparing to introduce nuclear power, as well as developed countries. Meanwhile, the scheduled three-yearly review of the Strategic Energy Plan is expected to start at an appropriate time, and will examine important topics such as the permission for new construction and expansion of nuclear power plants and the roadmap for utilizing hydrogen energy.

Second, another great challenge for Japan is ensuring that the reforms of the electricity and gas markets proceed smoothly. The reforms of the electricity market are at the final stage of discussing the detailed design. European countries and some states in America that started full liberalization early are now facing a lack of investment and difficulties in achieving an appropriate energy balance. In view of this situation, Japan is considering establishing a base load electricity market as a wholesale market, a non-fossil-fuel-value certificate market for achieving 44% zero-carbon electricity sources, and a capacity market to prevent a lack of investment. Some cases in Europe and the US show that market reforms often do not proceed as initially planned and result in a subsequent reform. A mechanism that allows for flexible re-adjustment of the system is needed. This April, the gas market will also be fully liberalized. A healthy market is expected to develop, although not as many companies have announced their intention to enter the gas market as in the electricity market, as a nationwide network is not yet in place and many of the operators are SMEs.



Third, regarding the global situation, attention must be paid to oil prices. Oil prices stopped falling after OPEC and non-OPEC countries agreed last November to cut production, but have not risen consistently since then. The rise in prices may be limited as it would lead to an increase in shale oil production. This is because the oversupply is continuing, but oil prices could gradually begin to head upward as the supply and demand for oil approach equilibrium in the latter half of this year. The current focus of attention is how much shale oil production can add and when it will peak, and whether regulatory easing under the Trump administration will lead to a second shale revolution. As a consumer country, the public and private sectors need to work together to prevent a lack of upstream investment in the future.

Fourth, cooperation for establishing an Asian LNG market must be discussed. While the supply and demand for oil is expected to reach a balance in the near future, LNG will continue to suffer from an oversupply for at least the next five years. Will this finally lead to tangible progress in the establishment of multiple hubs in Asia? To do so, it is essential to abolish or ease the destination clause, and the competition authorities of Japan and other Asian countries are reportedly showing an interest in whether the clause is consistent with competition laws. Establishing a flexible and highly liquid Asian market is indispensable for stimulating new demand in Asia; progress in the development of the sound market would benefit both consumers and producers.

Fifth, what will the Trump administration bring? Its policies are still unclear, but two points must be noted. One is the impact of an improving US-Russia relationship on the situation in the Middle East. The improving relationship is also likely to strongly affect the peace process in Syria and the reconciliation between Saudi Arabia and Iran. Furthermore, what will be the climate action policy of the administration, which has threatened to leave the Paris Agreement? The administration could bring constructive results if it chooses, rather than leaving, to make realistic proposals for the extremely difficult targets such as reducing GHG emissions by 50% by 2050, and takes a positive stance toward negotiations on technological innovation and adaptation measures.

Aside from these five key topics, the energy situation is changing extremely quickly. Under the new slogan "Mapping the Energy Future" introduced at the 50th anniversary, the IEEJ will analyze the unpredictable energy situation of Japan and the world, and provide policy recommendations to the governments of developing as well as developed countries, and producer as well as consumer countries.

I would like to take this opportunity to wish everyone a prosperous new year.



## Summary

### **【Special Feature I: Key Points for 2017】**

#### **1. Overall Energy Policy**

In 2017, the revision of the Strategic Energy Plan may start. The plan must be revised promptly to respond appropriately and boldly to the changes in surroundings and external factors.

#### **2. International Oil Situation**

Regarding the international oil situation in 2017, the focus will be on the extent of production cuts by oil producers, production growth in the US, the impact of the US rate increase, and the political and economic risks in the US and Europe. As the supply and demand will rebalance, Brent is estimated at \$60 in the latter half of the year.

#### **3. Domestic Oil Situation**

The decline in Japan's oil demand could accelerate as oil prices reverse. The accelerating consolidation of the oil industry may make the industry more resilient, contributing to the stable supply of oil.



## 1. Overall Energy Policy

**Akira Yanagisawa**, Senior Economist  
Energy and Economic Analysis Group  
Energy Data and Modelling Center

This April, three years will have passed since the Cabinet approved the Fourth Strategic Energy Plan that was formulated after long and difficult discussions. Article 12 of the Basic Act on Energy Policy stipulates that “The Government shall review the Strategic Energy Plan at least once every three years by taking into consideration the changes in the situation concerning energy and based on an evaluation of the effects of measures concerning energy, and if it finds necessary, make changes to the plan.” Thus, legally, the current plan must be evaluated by this spring at the latest, and work to revise it as necessary must be started.

For the energy system, whose lead-time and lifetime are both very long, three years is very short indeed. However, this does not mean that nothing has changed in the interim. While little progress was made on some matters, the energy situation of Japan and other countries changed dramatically, as did the market which reacted more drastically than the Government had expected.

In discussing the revisions to the Strategic Energy Plan, it is necessary to compare the current domestic and overseas situations with those when the previous Plan was formulated and to consider new challenges such as restarting the nuclear power plants, introducing renewable energies and expanding energy conservation, the stable supply of fossil fuels, and the implementation of emissions reduction efforts with the entry into force of the Paris Agreement. Discussions must also incorporate the progress in the liberalisation of the electricity and city gas markets currently underway. It is also important to consider external factors such as the large swings in oil prices, the progress in the US shale revolution behind it, and the new US Government.

We will have to allocate some of our limited resources to respond to these great changes, perhaps for a long time. To make truly effective moves, it is essential to look not just at the achievements but also the failures of the past. In evaluating these results, comprehensive criteria based on a broad perspective are essential.

In this highly uncertain period, various outlooks are being drawn up to help predict the future. As a person involved in formulating these outlooks, I am keenly aware that the future can differ considerably from an outlook, be it short-term or long-term. For instance, the current situation of lower energy consumption can be considered beneficial in view of the need to avoid wasting energy. However, low consumption is not welcome if it is caused by weak economic growth or climate factors, and if it is unsustainable.

There may be many more unexpected events down the road. Whenever they materialise, even long-term plans must be revised promptly to respond appropriately and boldly to the changes in surroundings and external factors.



## 2. International Oil Situation

**Tetsuo Morikawa**, Senior Economist, Manager  
Oil Group  
Fossil Fuels & Electric Power Industry Unit

Regarding the international oil situation in 2017, attention must be paid to the extent of production cuts by oil producers, production growth in the US, the impact of the US rate increase, and the political and economic risks in the US and Europe.

Through the Extraordinary Meeting of OPEC in September 2016, the Ordinary OPEC Meeting in November, and the OPEC and Non-OPEC Ministerial Meeting in December, OPEC agreed to cut production by approx. 1.2 million barrels/day from September levels, and the ten non-OPEC countries agreed to cut production by approx. 0.56 million barrels/day from October-November levels for six months starting from January 2017. This is the first time in 15 years that OPEC and non-OPEC countries have agreed on a joint production cut, and it resulted in oil prices returning to the 50-dollar range toward the end of 2016. However, in the past, both OPEC and non-OPEC often did not observe their production agreement, and thus the trend of actual production must be closely monitored in 2017.

The increase in oil prices is good news for American producers whose costs are relatively high. US production is already bottoming out. The number of operating rigs has been rising since May 2016, and the productivity of shale oil continues to improve. Production is unlikely to rise dramatically until the second quarter of 2017 as some producers have a priority to improve balancesheet before investing on upstream again. Nevertheless, if the production recovery exceeds expectations, it could restrain the rise in oil prices.

At the Federal Reserve Board (FRB) meeting from December 13 through 14, the US decided to raise interest rates. The FRB is planning three rate increase for 2017, which could cause the dollar to strengthen further after already rising against other currencies since the US presidential election. As the dollar is usually used for international oil transactions, a stronger dollar will make oil more expensive in other currencies, induce selling, and pushing down prices. How far this principle applies will depend on how market pay attention to the rate increase compared to other factors.

2017 will bring a series of important political events: the inauguration of President Trump in January, the March deadline for Britain's notification of withdrawal from the EU, the French presidential election for April or May, and the German general election for August through October. If the market focuses on the exclusionist and isolationist policies of the Trump administration and the moves of anti-EU forces in Europe's political events, these factors could cause turmoil in the stock, foreign currency, and other financial markets, making investors more risk-averse and sending oil prices down.

As the supply and demand for oil will rebalance in 2017, international oil prices are estimated at around \$55/barrel in the first half, rising to \$60/barrel in the second half of 2017 for Brent. However, considering the above factors, oil price will have more downside risks rather than upside in 2017.



### 3. Domestic Oil Situation

**Ikuo Hamabayashi**, Secretary General  
The Oil Information Center

Japan's fuel oil consumption for January-October 2016 was approx. 145 million kl, down 3.1% year-on-year. Further, the oil supply-demand outlook for 2020 released in April by METI's Advisory Committee for Natural Resources and Energy projected that the decrease in domestic fuel oil consumption will continue, predicting an average decline of 1.7% each fiscal year.

With the drop in crude oil prices since the summer of 2014, domestic petroleum product prices fell significantly in 2016. In March 2016, the national average price of regular gasoline reached 112.0 yen/liter, the lowest in seven years. However, oil importing costs rose as OPEC (Organization of the Petroleum Exporting Countries) agreed to cut production and the yen weakened after Donald Trump's victory in the US presidential election, causing prices to gradually rise in the latter half of 2016 and to the higher 120 yen range in December, marking an all-year high. As such, the demand for gasoline is expected to continue to fall from next year as fuel-efficient cars spread and due to other reasons.

In response to the demand situation, Japan's refining capacity was cut in March 2014 based on the first stage public notice of the Act on Sophisticated Methods of Energy Supply Structures. Further, based on the second stage public notice of the Act released in July 2014, an additional capacity cut of approx. 400,000 barrels/day will be achieved by the end of March 2017. Looking at the trend of demand, however, further capacity cuts will be inevitable, and so a large-scale industrial reorganization is underway in response to the business environment. By thus integrating and rationalizing facilities, and by strengthening the business base of the oil industry through reorganization, enhancing the upstream business and actively expanding overseas by purchasing overseas oil fields, the oil industry may become more resilient and contribute to the stable supply of oil.

Meanwhile, new discussions on oil policies have begun to respond to the changes in the oil industry. At the study group on the refining and distribution of petroleum established last year under the Natural Resources and Fuel Committee of METI's Advisory Committee for Natural Resources and Energy, discussions are underway on improving the productivity of the petroleum supply chain and ensuring the transparency of the oil market. Further, the oil industry's response to the Paris Agreement and to the liberalization of the electricity and gas industries must also continue to be discussed.

Regarding the importance of oil as the "energy of last resort" after a disaster, following the construction of "core SSs (service stations)" for supplying fuel to emergency vehicles, in FY 2017, the construction and upgrading of regional SSs that serve as supply hubs for local residents will start. Further, the ongoing study and measures for maintaining the network of SSs in depopulated areas are gaining steam. Maintaining the oil supply chain, including measures for SSs in depopulated areas, is another important challenge for the oil industry.



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