



# IEEJ e-NEWSLETTER

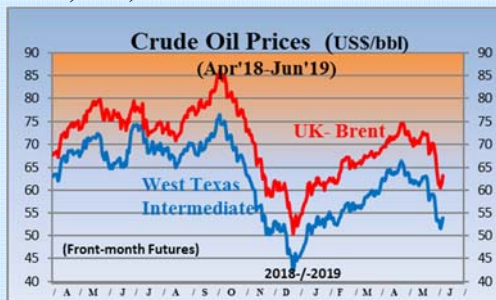
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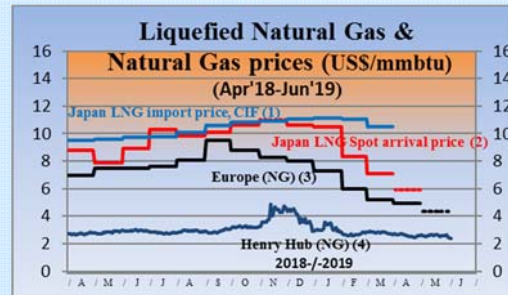
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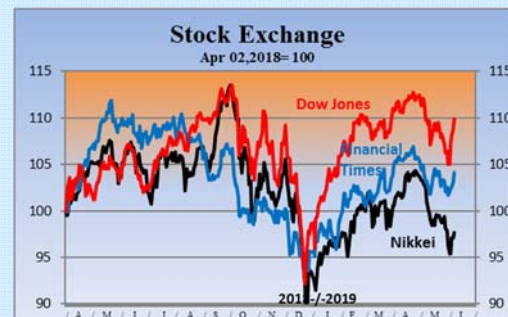
Sources:  
(1) DOE-EIA  
(2) Investing.com



Sources:  
(1) Ministry of Finance "Japan Trade Statistics"  
(2) Ministry of Economy, Trade and Industry (arrival month basis)  
(3) Estimated by World Bank (Netherland Title Transfer Facility)  
(4) DOE-EIA, NYMEX (Front-month Futures)  
(5) Investing.com and Finance.Yahoo.com



Source: x-rates.com



Source: Investing.com and Finance.Yahoo.com

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## **Summary**

### **1. Developments in Nuclear Power**

The Nuclear Regulation Authority announced the policy of not allowing a reactor to continue to operate if specific safety facilities cannot be constructed for it within the required period of five years. Transparent discussions based on science are needed.

### **2. Recent Developments in the Oil Market**

In the second half of 2019, oil prices will be exposed to both the upward pressure of falling exports of Iranian oil, and the downward pressure of the US-China trade war and US production increase.

### **3. Recent Developments in the LNG Market**

Progress have been observed in LNG production project activities in several areas around the world. Major LNG players, through competition and cooperation beyond national and regional borders, are viewing for greater presences in the global LNG industry.

### **4. Update on Policies Related to Climate Change**

In the US, George David Banks, the former special advisor to the President, will take office as a chief strategist for Republicans in the House Select Committee on Climate Crisis. Attention must be paid to whether climate action will become a major point of contention in the 2020 presidential election, and if so, how the two parties will respond.

### **5. Update on Renewable Energies**

Discussions on a fundamental review of the FIT system and the reshaping of the renewable energy policy by the end of FY2020 started in the Subcommittee on Mass Introduction of Renewable Energy and Next-Generation Electricity Networks.



## 1. Developments in Nuclear Power

**Tomoko Murakami**, Senior Economist, Manager  
Nuclear Energy Group  
Strategy Research Unit

At its fifth regular meeting on April 24, the Nuclear Regulation Authority (NRA) announced the policy of not allowing a reactor to continue to operate if specific safety facilities cannot be constructed for it within the required period of five years. The meeting was held following the NRA conference on April 17 with the chief nuclear officers of major nuclear facility owners (CNO Conference), where electric utilities had requested to reconsider the adequacy of the said period. The decision came after an inquiry from electric utilities who explained their current situation and requested the NRA to take necessary measures in line with its own words on December 22, 2015 that “the NRA will ask the utilities about their situation and take necessary measures regarding the construction of specific safety facilities when the end of the required construction period approaches.” In response, the NRA issued what is assumed to be the final decision in just one week.

Ahead of this conference, in a meeting between the NRA and international advisors on April 1, in response to an advisor who questioned the transparency of the grounds for specifying five years as the construction period and suggested that action be taken case by case, NRA Chairman Toyoshi Fuketa said that “the time period was set based on the consent of operators through a careful hearing. Reactors will have to be shut down if they cannot meet the deadline.” This reply was repeated at the regular meeting on the 24th. As its reason, the NRA cited “impact on the very essence of regulatory activity” and admitted that exceeding the time requirement would not increase risk. This is reasonable in the sense that noncompliance should not be allowed indefinitely, but then it would also be essential to present the transparency of the grounds for specifying the period, as pointed out by the advisor. In addition, the “consent of operators” mentioned by Chairman Fuketa is highly doubtful.

It is unclear whether the NRA’s current policy is its final decision. Electric utilities should start by fully explaining why the assessment concerning the specified safety facilities was prolonged, such as the addition of new assessment items that were unforeseen when the period was set to five years. Then, the period should be discussed again based on scientific grounds.

At the seventh regular meeting held on May 15, the situation of recent safety assessments was reported by NRA inspectors to the NRA commissioners. The inspectors presented their view that further assessments should stop for at least a year for Tomari Unit 3, unless operators submit the results of studies on on-site fault activity and possible volcanic activity. Hokkaido Electric has said that they will report the results of studying these issues around October this year at the ad-hoc meeting with the NRA on the 23rd. However, none of these issues were mentioned for months after Hokkaido Electric applied for the plant’s safety assessment in July 2013. To make the assessment process more transparent, the views of Hokkaido Electric as the party to the assessment should be properly considered, namely, why these issues were added in the middle of the assessment.



## 2. Recent Developments in the Oil Market

**Tetsuo Morikawa**, Senior Economist, Manager  
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The United States ended the sanctions waivers on Iranian oil on May 1. On April 22, the day of the announcement, Brent jumped by 2.1 dollars (2.9%) from the previous day to \$74.04/bbl. As a result, importing Iranian oil requires a party that does not have trade relations with the United States. As there are few such parties, it will be difficult to import Iranian oil without infringing on the secondary US sanctions. Some attempts are being made to import Iranian oil while dodging US sanctions through barter, but this is not easy either due to the scarcity of exports to Iran to use for bartering. China and Turkey have announced they will continue importing while Japan and South Korea have already stopped.

Naturally, Iran condemns the US' decision. Iran's President Rouhani has reaffirmed the country's intention to continue exporting oil, which it is likely to do by switching off the automatic identification systems of tankers and by ship-to-ship cargo transfers on the high seas. Commander Alireza Tangsiri of the Islamic Revolutionary Guards' Navy has said that Iran will shut off the Strait of Hormuz if anyone stops Iran using it. The United States believes that Iran was involved in the attack on a Saudi Arabian tanker on May 12. The US has also announced it is sending an aircraft carrier and bomber task force to the Persian Gulf, further escalating tensions in the region. To preserve the regime, Iran is expected to not blockade the Straits as this would provide the US with the perfect reason to attack Iran. However, an attempted blockade or other geopolitical incident with impact on the oil supply, should it occur, would inevitably cause a supply-demand crunch and send oil prices soaring, albeit briefly.

Meanwhile, there is also downward pressure on oil prices due to the US-China trade war and the US production increase. On May 10, President Trump raised tariffs on \$200 billion worth of Chinese imports to 25% and ordered that tariffs be raised on the remaining approximately \$300 billion soon. President Trump and President Xi may talk during the G20 in late June, but unless the two countries reach some deal by then, tariffs may indeed be raised on the remaining \$300 billion of goods. Another rise in tariffs would cause stock prices to plummet not only in the US and China but also worldwide, inevitably affecting the global economy including China's real economy which is already showing signs of slowing. Furthermore, the US Energy Information Administration predicts that US crude output will increase by as much as 1.49 mb/d (14%) from 2018 to 2019, reaching 12.44 mb/d. President Trump has made repeated requests to OPEC to boost output, in response to which OPEC Plus has reportedly discussed reducing the production cut on May 19. In the second half of 2019, oil prices will be exposed to both the upward pressure of the drop in Iranian oil exports, and the downward pressure of the US-China trade war and US production increase. Oil producers will face tough decisions at the OPEC Plus meetings scheduled for June 25 and 26.



### 3. Recent Developments in the LNG Market

**Hiroshi Hashimoto**, Senior Analyst  
Gas Group

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Notable progresses have been observed in development activities of LNG projects that target around 2024 to start supply. The developments attract attention as they would contribute to stabilisation of future demand and supply balance through expansion of supply capacity, as well as creating huge opportunities of plant engineering, shipbuilding and financing.

Qatar Petroleum, which is undertaking the North Field Expansion (NFE) project to expand the country's overall annual LNG production capacity to 110 million tonnes, issued an invitation to an EPC (engineering, procurement and construction) tender package for four "mega-trains" of liquefaction facilities to qualified contracting ventures that involve Japanese engineering companies in late April, as well as a tender for shipbuilding reservation. The arrangement is expected to be the largest ever LNG shipbuilding one, covering as many as 100 ships to transport volumes from the NFE project and those from the Golden Pass LNG project in the United States, as well as an option to replace existing ships currently delivering LNG from Qatar.

Russia's Novatek announced two initial LNG sales deals with European companies in April, an EPC contract for liquefaction facilities in May, and 10%-each equity-participation agreements with two Chinese companies respectively in early June, in respect of Novatek's second large-scale LNG production project in Russia's Arctic Circle. In Mozambique, the Mozambique LNG project led by Anadarko Petroleum announced in May that a final investment decision (FID) would be made in June, after the project concluded another LNG sale and purchase contract involving a Japanese LNG buyer. Total has agreed to take over Anadarko's African assets, including those in Mozambique, after Anadarko is acquired by Occidental Petroleum. In the country in May, too, the government approved the development plan of the Rovuma LNG project, led by ExxonMobil and Eni.

Total and ExxonMobil signed a fiscal framework agreement for their Papua LNG project with the government of Papua New Guinea in April. Total will operate upstream gas production and the LNG plant is expected to be developed in synergy with ExxonMobil-operated existing PNG LNG project. Total participates in the above-mentioned Arctic project while ExxonMobil is a partner in Golden Pass LNG. As well as LNG producing countries, LNG companies are in global competition to establish greater presences in the LNG industry.

While shipment from the United States amounted to 7.5 million tonnes during the first quarter of 2019, 50% more than the same period in 2018, four additional projects have so far in 2019 obtained construction and operation approvals from the federal regulators. Another seven projects have also cleared environmental reviews and are waiting for final approvals due within 90 days.

All approved projects are not always guaranteed to advance to an investment stage. And even after investment decisions, significant project management efforts will be needed. Additionally, reduction and management of GHG emissions are expected to be an important challenge for future LNG production projects, as indicated at the IEEJ / APERC Energy Symposium on 17 May.



#### 4. Update on Policies Related to Climate Change

**Takahiko Tagami**, Senior Coordinator, Manager  
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On April 29, the media reported that George David Banks, who resigned as special advisor to the President in February 2018, will take office as a chief strategist for the Republicans in the House Select Committee on Climate Crisis. Behind this appointment is the increasing pressure on the Republican Party to deal more seriously with global warming.

On May 2, the Democrat-controlled House of Representatives passed the Climate Action Now Act, the first legislation concerning climate change to pass the House since 2009. The Act prohibits the administration from using federal funds to withdraw from the Paris Agreement and requires the administration to develop and submit to Congress a plan that meets its obligation under the Paris Agreement. (The Act is unlikely to pass the Republican-controlled Senate.)

According to a CNN poll of Democrats/Democratic-leaning independents released on April 30, 82% of respondents say it is “Very important” that the Democratic candidate for president supports “Taking aggressive action to slow the effects of climate change” and no item polled higher. Further, in a poll by NBC News/Wall Street Journal in February 63% of respondents described the Republican Party’s approach/position on climate change outside the mainstream. The Democratic Party must take a more aggressive stance on climate action heading toward the presidential election, and the Republicans must take some action too.

Earlier, on February 7, freshman Representative Alexandria Ocasio-Cortez and veteran Senator Ed Markey announced a non-binding Green New Deal resolution, which was supported by six Senators vying for presidential candidacy. The Green New Deal calls for the U.S. to shift away from fossil fuels and replace them with renewable energy sources, and features provisions on health care, jobs, higher education, and housing. The Republicans argue that the Deal would devastate the economy, lead to a huge tax increase, and is more evidence of the creep of “socialism” in the Democratic Party. The House Democrat leaders are lukewarm on the Green New Deal and are concerned that the overly “left-leaning” policy may alienate voters in 2020.

With this background, on March 26 the Republicans, who have a majority in the Senate, forced a vote on the Green New Deal to use it as a test and drive a wedge between the liberal and moderate in the Democratic Party. Senators voted 57-0 against a procedural motion to take up the Green New Deal Resolution. All 53 Republicans, three Democrats and an independent opposed it, while 42 Democrats and an independent voted “present” to protest against the Republicans who had forced the vote without deliberation, and put it on record that they were neither for nor against the motion. These developments suggest to some that the Democrats are losing the capacity to draft climate legislation and negotiate with the Republicans due to a lack of experience in the Republican-controlled Congress of the past few years. Meanwhile, others think that the Republicans have merely opposed the bills but without making any counterproposals. Attention must be paid to whether climate action will become a major point of contention in the 2020 presidential election, and if so, how the two parties respond.



## 5. Update on Renewable Energies

**Yoshiaki Shibata**, Senior Economist, Manager  
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On April 22, the Subcommittee on Mass Introduction of Renewable Energy and Next-Generation Electricity Networks met to discuss the fundamental review of the FIT system and the reshaping of the renewable energy policy by the end of FY2020.

To address issues including the large difference in the cost of solar PV and wind power between Japan and overseas, the establishment of an environment for the stable long-term renewable power generation business, and emerging network constraints, the Subcommittee has held many discussions since the end of 2017 and published an interim report in January 2019. Building on the interim report, the goal of this fiscal year's deliberation is to fundamentally revise the FIT system to address issues that the current system cannot handle and to reshape the renewable energy policy. The topics to be discussed are: (1) how the system should be designed considering the characteristics of each power source, (2) appropriate business ethics, and (3) the shift to the next-generation power network.

The first topic refers to discussing policy measures to address the problems of each power source such as the rise in the surcharge burden caused by commercial solar PV and the delay in the development of geothermal and medium-/small-sized hydropower. However, the underlying goal of the first topic is for renewable energy to achieve economic independence. So far, renewable energy has been insulated from the electricity market mechanism and given generous protection including fixed-price purchasing by transmission operators, exemption from the responsibility to adjust any imbalance, and (partial) compensation for output curtailment, and has not had to take any business risks. If the use of renewables is to expand sustainably in future, it is clear that it must grow independent from such protection as soon as possible.

The second topic stems from concern over the lack of responsibility for safety, environmental impact, and waste among operators, particularly solar PV operators, and uncertainty as to whether they will continue business after the purchase period ends. In short, a system is needed that enables renewable electricity operators to prosper with local society and continue their business independently after the FIT system ends, rather than reaping profits without having to consider the social impact and then leaving quickly.

The third topic concerns building a network systematically in preparation for the large-scale introduction of renewable electricity. Challenges include accelerating the introduction of remote controllers for improving the efficiency of output curtailment and beefing up inter-regional lines. Regarding these issues, collaboration must be sought with the comprehensive study on the electricity infrastructure being discussed separately in the Subcommittee on Electricity Resilience toward Decarbonized Society.

Currently, to cope with the issue of non-reliance on FIT from 2019 as the end of the high fixed-price purchase of electricity under the FIT system approaches, electricity, gas, oil, and housing companies are actively announcing purchase plans for residential solar power while new products and services are being added to battery and heat storage product portfolios aiming to boost power consumption in homes. Unless it can outgrow its dependence on the FIT system beyond the end of the system and its fundamental revision, it will be impossible for renewable electricity to become a key power source. Attention must continue to be paid to the discussions in government councils.



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