



# IEEJ e-NEWSLETTER

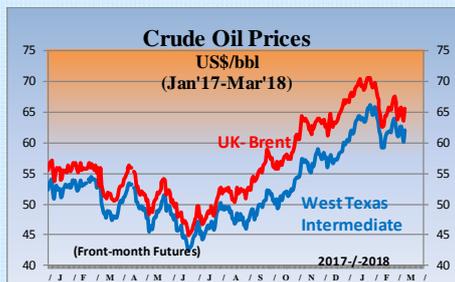
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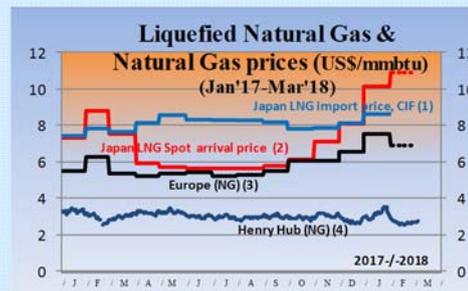
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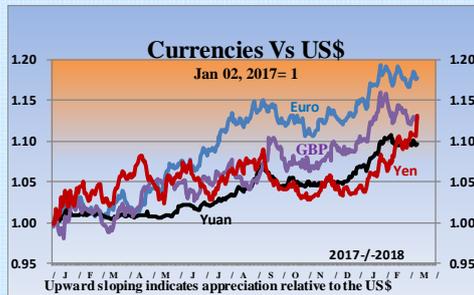


Source: DOE-EIA, Financial Times, NASDAQ

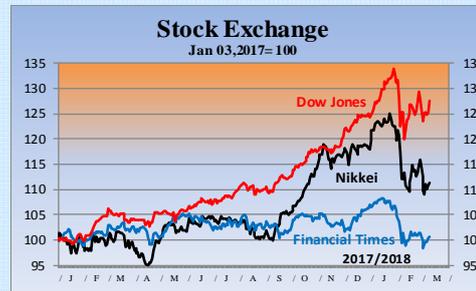


Sources:

- (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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## Summary

### **【Energy Market and Policy Trends】**

#### **1. Developments in Energy Policies**

On February 20, 2018, the 24th Strategic Policy Committee Meeting was held to hear the views of organizations concerned on the revision of the Strategic Energy Plan. The Keidanren (Japan Business Federation), the Chambers of Commerce and Industry, JTUC, and Shodanren (Consumers Japan) participated.

#### **2. Developments in Nuclear Power**

At a meeting held in Tokyo and Aomori on restoring public trust in nuclear power, opinion leaders from communities which host nuclear power plants in and outside Japan expressed the importance of communicating the contribution of nuclear power to the economy and stability of the electricity supply.

#### **3. Recent Developments in the Oil and LNG Markets**

The international oil market is becoming increasingly susceptible to financial market factors such as share prices and exchange and interest rates. In the international LNG market, the growing seasonable volatility is becoming a serious problem.

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

In Japan, the Advisory Panel to the Foreign Minister on Climate Change released Recommendations on Energy. Overseas, White House Special Assistant David Banks, the leading advocate of the Clean Coal Alliance, resigned.

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

The IEEJ organized the German-Japanese Energy Transition Council and Japan-Saudi Arabia Hydrogen Ammonia Master Plan Workshop. Policy proposals are due to be finalized on the respective themes within this fiscal year.



## 1. Developments in Energy Policies

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

On February 20, the 24th Strategic Policy Committee Meeting was held to hear the views of organizations concerned on the revision of the Strategic Energy Plan. The Japan Business Federation (Keidanren), the Chambers of Commerce and Industry of Japan and Tokyo (JCCI and TCCI), the Japanese Trade Union Confederation (JTUC), and the Consumers Japan (Shodanren) participated.

The views of the organizations can be summarized as follows:

- Keidanren:** For Japan with limited natural resources, it is important to pursue its original energy mix and utilize diverse energy resources in meeting the S+3E (Safety + Efficiency, Environment and Economy) policy. The energy mix that the government established in 2015 fulfills the S+3E policy and must be attained.
- JCCI & TCCI:** We compared the energy mix for 2030 announced in 2015 with JCCI's proposals back then. There was no major difference between them, and we consider that the Plan is well-balanced.
- JTUC:** The transition must be conducted fairly to prevent economic and social changes from negatively affecting employment, as advocated by the International Trade Union Confederation since around ten years ago and included in the preamble of the Paris Agreement. Care is required to prevent hollowing-out of industry and negative impacts on employment.
- Shodanren:** Growth and expansion are notions of the past; society is now headed toward achieving sustainability. The situation has changed in the three years since the establishment of the energy mix and speedy action is required. We request enhanced communication through the distribution and sharing of information.

As aptly described by Committee Member Keigo Akimoto that “Everyone has a shared view on the sustainable development goals (SDGs) and wishes to achieve a sustainable society,” the four organizations are basically headed in the same direction. However, the views they expressed differed depending on what they emphasize most. This might have been due to the scopes they took into consideration when drafting their comments. Committee Member Takao Kashiwagi noted, “The Keidanren, the Chambers of Commerce and Industry, and JTUC all commented on the ideal energy system for Japan as an industrial nation which consumes 5% of the world’s electricity, only from different standpoints. Meanwhile, it is important for Shodanren to consider not only people’s lives and energy but also Japan as a whole.” These comments were astute as they also emphasize the broad range of areas covered by the issue of energy.

For any group or organization, representing an interest is an important role to fulfill. It, however, is a matter of regret that some organizations built their arguments based on the opinions of particular groups and restricted examples, and attempted to create the impression that they are commonly accepted views. The organizations normally advocate the importance of distributing clear, accurate information, and so should continue to make appropriate comments as they themselves advocate.



## 2. Developments in Nuclear Power

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

On February 6, six opinion leaders on nuclear power issues in Japanese, American, British, and Finnish communities which host nuclear power plants met with around ten nuclear experts from Japan and other Asia-Pacific countries in Tokyo, and discussed the requirements for nuclear power to be accepted by the public.

All of the American and European opinion leaders have experience in leading communication between residents and other stakeholders on the one hand and the governments and nuclear power plant operators on the other in hosting communities. The same group also held a meeting in Rokkasho Village of Aomori Prefecture on February 8, and exchanged views with opinion leaders involved in similar activities there. The conclusions from the two meetings were: (1) The government's unwavering stance in advancing energy policy is essential for gaining public trust in nuclear power. (2) Risk cannot be accepted without knowing the benefits, and so the public should be fully informed of the contribution of nuclear power to the economy and the stability of electricity supply, as well as of safety and risk.

Regarding domestic nuclear policy, discussions resumed in the Nuclear Energy Subcommittee on January 16 after a two-and-a-half-year hiatus. The 14th meeting held on February 8 discussed voluntary safety improvements by operators for regaining public trust, and the 15th meeting on February 20 discussed providing government support to get hosting communities back on their feet as local economies struggle with the prolonged shutdown of nuclear power plants. However, the most crucial point, which is how to communicate the advantages of nuclear power, particularly its contribution to the economy and stability of electricity supply, is apparently not treated as a major discussion point. Both the government and operators should listen earnestly to the opinions of the American and European opinion leaders on hosting communities, and explain the past and future contribution of nuclear power to the economy and stability of electricity supply without fearing an emotional backlash.

On February 9, President Trump of the United States signed the Bipartisan Budget Act of 2018 which includes extending the production tax credit for advanced nuclear power facilities to January 1, 2021 or beyond. This tax credit is based on the Energy Policy Act of 2005 which allows operators to deduct 1.8 cents/kWh from the production tax for up to 6 GW in a qualified advanced nuclear power facility for up to eight years after the start of operation. The Act was initially scheduled to expire on December 31, 2020 before Vogtle Units 3 and 4 (two 1.1 GW AP-1000 plants) start to operate in 2021 or 2022. Such concern has been cleared, at least for the time being. However, this tax credit applies only to those plants which are licensed by the NRC, built steadily by operators based on solid funding and construction plans, and start operation smoothly. It does not help those operators who are having second thoughts about proceeding with their projects under the current low wholesale electricity prices. The electricity markets of each state and the measures taken at state-level must continue to be monitored.



### 3. Recent Developments in the Oil and LNG Markets

**Yoshikazu Kobayashi**, Senior Economist, Manager  
Gas Group Fossil Fuels & Electric Power Industry Unit

The international oil market is becoming susceptible to financial market factors. After rising to \$70/bbl at the end of January, Brent headed downward, reaching the \$62 range in early February and hovering around \$65 since mid-February. Behind such fluctuation is the strong impact of instability in international financial markets.

Until last year, international financial markets enjoyed “goldilocks” conditions (the moderate temperature), neither too hot nor too cold and characterized by a combination of a booming global economy and low inflation and interest rates. Since the beginning of January, the combination of rising stock prices and the depreciating dollar prompted buying in the international oil market in anticipation of a supply crunch, pushing Brent into the \$70 range.

However, the “moderate temperature” condition suddenly reversed in February. Oil prices fell sharply in early February as the rise in US long-term interest rates caused stock prices to plummet, raising concerns for the global economy and inducing a selloff of oil futures. Price fluctuations are now calming down and the oil market is adopting a wait-and-see attitude as of mid-February. However, oil prices could remain susceptible to financial market factors including US interest rate policy under the new FRB Chair Jerome Powell who took office on February 5, the possible end of quantitative easing by the European Central Bank, and resulting exchange rate fluctuations.

Of course, finance is not the only factor causing swings in oil prices. On the supply side, American shale oil production is expected to surge due to the rise in oil prices. In its latest oil market report, the International Energy Agency predicts that US oil output will grow by more than 1.5 mb/d in 2018. On the other hand, output is plunging in Venezuela where there is a looming debt crisis, due to the impact of US economic sanctions and a cash crunch of the state-run oil company PDVSA. Production has fallen from more than 2 mb/d in July 2017 to 1.6 mb/d in January 2018, with some experts predicting a further drop to as low as 1 mb/d. These supply and risk factors will certainly cause price fluctuations in the international oil market going forward.

In the international LNG market, the spot LNG price of Northeast Asia has dropped to as low as \$8/mmbtu (April delivery). The demand period is ending, and the price is likely to continue to fall. One of the reasons for the jump in spot prices this winter was the increase in seasonal demand volatility as the overall global LNG market expanded. China, where volatility is particularly high, needs to build up storage capacity, although this will take time. In the meantime, the international LNG market will have to live with powerful seasonal volatility, and there is a great need to develop a flexible, high liquidity LNG market that can absorb such volatility.



## 4. Update on Policies Related to Climate Change

**Takahiko Tagami**, Senior Coordinator, Manager  
Climate Change Policy Research Group  
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In his speech on January 14 at the Ministerial Roundtable of IRENA's 8th Assembly held in Abu Dhabi, Japanese Foreign Minister Taro Kono said that "Japan significantly lags behind the world in the deployment of renewable energy" and "I am seriously concerned with our current situation." Ahead of this speech, on January 9, the Ministry of Foreign Affairs of Japan established an Advisory Panel to the Foreign Minister on Climate Change, with a view to discussing global trends in renewable energies and climate issues. The Panel is comprised of NGOs, researchers, and enterprises actively engaged in climate actions. The Panel met eight times before submitting "Recommendations on Energy" to Foreign Minister Kono on February 19.

Subtitled "Promote new diplomacy on energy through leading global efforts against climate change," the recommendations propose (1) Deploy renewable energy diplomacy, (2) Define Japan's pathway towards the energy transition, and (3) Take a leading role in realizing decarbonized society and create a new economic system. For Item (2), the recommendations include presenting a roadmap for phasing out coal-fired thermal power in Japan, promptly stopping public assistance for coal-fired thermal power exports, and minimizing dependence on nuclear power.

Some consider that this move is intended to influence the review of the Strategic Energy Plan which is being undertaken by the Ministry of Economy, Trade and Industry. The Advisory Panel is scheduled to meet several times in March and submit comprehensive recommendations around April.

Meanwhile, at COP23 held last November, David Banks, the then White House special assistant for international energy and environment (a National Economic Council member) had informally revealed the idea of a Clean Coal Alliance for promoting clean and highly efficient fossil fuels. This initiative reportedly was formulated by "internationalists" in the State Department and National Economic Council to demonstrate that climate change remains of interest to the US despite its withdrawal from the Paris Agreement. This Alliance is also expected to counterbalance the Powering Past Coal Alliance led by Canada and Britain also announced at COP23.

The countries rumored to be joining the Clean Coal Alliance include Australia, India, African countries, Ukraine, Japan, Indonesia, China, and Poland. There have been media reports that the US is considering establishing Major Economies Ministerial, reminiscent of the Bush Administration's Major Economies Meeting on Energy and Climate Change, and taking leadership again. However, it is not yet clear whether the Clean Coal Alliance will indeed be established, and particularly with the resignation of Mr. Banks on February 13 as White House special assistant, the future has become harder to foresee.



## 5. Update on Renewable Energies

**Hisashi Hoshi**, Board Member, Director

New and Renewable Energy & International Cooperation Unit

**Yoshiaki Shibata**, Senior Economist, Manager

New and Renewable Energy Group

New and Renewable Energy & International Cooperation Unit

### German-Japanese Energy Transition Council meets in Berlin

The IEEJ, Germany's Wuppertal Institute and others have been organizing the German-Japanese Energy Transition Council (GJETC) consisting of nine experts from Japan and Germany since May 2016 with the help of respective governments. The fourth meeting of GJETC was held in Berlin on February 14 and 15, and a final report containing a policy proposal was drafted. This brings to an end the activities of GJETC for now. While sharing common values in energy policy such as security, environmental friendliness, and economic efficiency, the two countries have large differences in their approaches to goal-setting and the ways of achieving those goals, including the handling of nuclear power. GJETC is significant in that it overcame such differences between the countries to formulate a joint policy proposal.

Key points of the policy proposal:

- 1) Japan and Germany will need to restructure their energy systems for the next 30 years. To approach such "transition" effectively, the countries should share their knowledge and experience.
- 2) An appropriate market design is required for the structural reforms of the electricity and gas sectors.
- 3) It is necessary to promote the introduction of renewable energies, but it is also necessary to consider the cost and impact of variable renewables on the power grid.
- 4) To ensure a successful energy transition, it is necessary to continuously evaluate progress, involve stakeholders, and ensure transparency.

### Japan-Saudi Arabia Hydrogen Ammonia Master Plan Workshop

Following Tokyo in September last year, the IEEJ and Saudi Aramco co-hosted a workshop on "CCS and hydrogen in the framework of collaboration in studies on technologies toward a low carbon energy system in Saudi Japan Vision 2030" in Riyadh at the end of last year. The workshop was held as part of the "Study for formulating a master plan for a low-carbon energy system in Saudi Arabia" adopted under METI's Research Scheme for the Infrastructure Development of the Joint Crediting Mechanism FY 2017 (Study on the quantification of international contributions and assessing the feasibility of JCM).

This study postulates, as one option for Japan's international contribution to reducing GHG emissions, a supply chain for carbon-free hydrogen and ammonia produced from Saudi Arabian fossil fuels tied with CCS. The workshop reported on the efforts on CCUS by Saudi Arabia and its potential, and the economic efficiencies of Japan's technological options for producing, transporting, and storing hydrogen and ammonia. Based on the workshops in Tokyo and Riyadh, a master plan for constructing a supply chain will be finalized within this fiscal year.

The IEEJ will continue to deepen collaboration with Saudi Arabia for building a hydrogen ammonia supply chain.



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