



# IEEJ e-NEWSLETTER

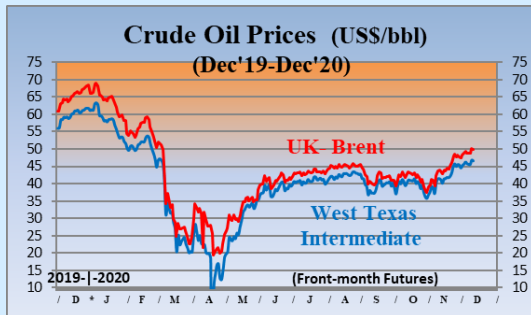
No. 198

(Based on Japanese No. 207)

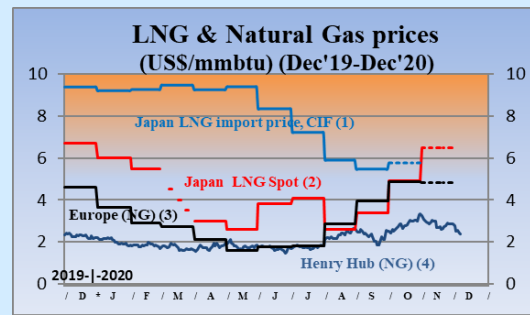
Published: December 15, 2020

The Institute of Energy Economics, Japan

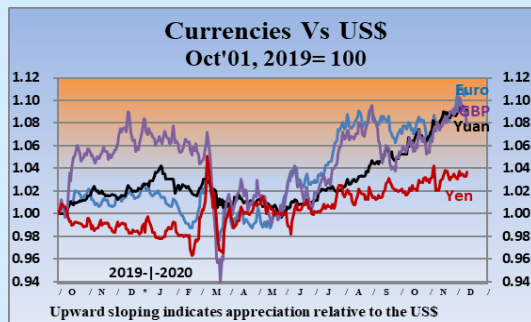
(As of December 11, 2020)



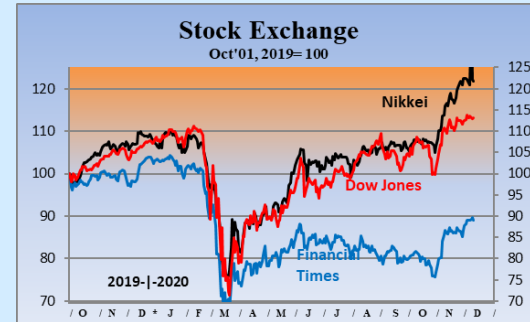
Sources:  
 (1) DOE-EIA  
 (2) Investing.com



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



Upward sloping indicates appreciation relative to the US\$  
 Source: x-rates.com



Sources:  
 (1) Finance. Yahoo.com  
 (2) Investing.com

## Contents

### Summary

### 【Energy Market and Policy Trends】

1. Energy Policies
2. Developments in Nuclear Energy
3. Recent Developments in the Oil and LNG Markets
4. Update on Policies Related to Climate Change and Energy Conservation
5. Update on Renewable Energies



## Summary

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

#### **1. Energy Policies**

The Strategic Policy Committee met for the first time after Prime Minister Suga's declaration to achieve net carbon-neutrality by 2050. The Committee welcomed the declaration and agreed with it as a desirable objective to aim for.

#### **2. Developments in Nuclear Energy**

In Japan, the nuclear back-end business is slowly but surely making progress, as with the recyclable fuel storage center and the survey for selecting a final disposal site for HLW. Onagawa Unit 2 received approval to restart from the Governor of Miyagi Prefecture, and Sendai Unit 1 went back online.

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

The energy and environmental policies of president-elect Joe Biden, such as EVs, domestic E&P and infrastructure, and negotiation with Iran, could put downward pressure on oil prices.

#### **4. Update on Policies Related to Climate Change and Energy Conservation**

The G20 Summit held on November 21–22 discussed “building a more environmentally sustainable and inclusive future for all people as we recover from the pandemic,” and incorporated the pursuit of a Circular Carbon Economy in the Leaders' Declaration as a climate action.

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

The state of New York approved a new target to raise the share of renewable electricity to 70% by 2030. Under the most ambitious target in the country, the state's initiatives to boost renewable electricity deserve attention.



## 1. Energy Policies

**Shigeru Suehiro**, Senior Economist, Manager  
Econometric and Statistical Analysis Group  
Energy Data and Modelling Center

On November 17, the meeting of the Strategic Policy Committee of METI's Advisory Committee for Natural Resources and Energy, the 33rd, was held for the first time after Prime Minister Suga's declaration to achieve net carbon-neutrality by 2050. Many members welcomed the declaration.

In his opening address, METI Minister Kajiyama said, "Energy is the foundation of economic activity and people's daily life and the 3E+S principle will continue to be important in 2050. I would like the Committee to discuss the roles and challenges of energy in a carbon-neutral society and the measures for addressing them, without foregone conclusions."

The organizers proposed that the carbon-neutrality declaration "should be understood as a desirable objective while anticipating various scenarios, rather than as a mandatory target," citing cases from the UK and the EU. The members made no objections and mostly agreed with the proposal. As the next steps, the organizers said they will discuss the challenges that must be overcome for achieving carbon neutrality, separately for the generation sector and the final demand sector. At the meeting, the organizers explained the current status and challenges of renewable energies in detail.

Most members agreed that in view of various uncertainties such as technological development and the changing situation of society, it is important to enhance foreseeability by presenting multiple roadmaps in order to build an environment for accelerating private sector investment. Meanwhile, there was a comment that the Committee should also discuss how far Japan can decarbonize based on its current approach, without relying too much on future innovations. One member also said that climate actions should be considered as a growth strategy, and the Committee should map out a bright and positive future.

There was also an opinion that introducing large amounts of renewables affects land use and town development, and therefore collaboration and coordination with regional municipalities and government ministries will be important. Furthermore, many commented that the use of renewables to decarbonize the demand for heat, not only electricity, should also be discussed.

IEEJ Chairman and CEO Masakazu Toyoda commented as follows.

- It is necessary to create multiple scenarios and clarify the advantages and disadvantages in order to gain the understanding of the public and industry.
- While renewable energy should be utilized to the maximum, it must be made known that there are constraints on adding new capacity, such as the need for backup for solar PV and wind power, restrictions on land usage, and difficulty in getting local communities to accept geothermal energy.
- Nuclear power is also an important zero-carbon power source with a low generation cost. It may play a role in lowering the overall cost of the energy mix, but a full consensus has not been reached regarding this point. The achievements of the Cost Verification Working Group must be shared as well.
- To achieve carbon neutrality, it is essential to decarbonize fossil fuels using hydrogen, ammonia, and carbon recycling. Alongside technological development, we must keep steadily investing in upstream businesses and storing fossil fuels.
- Outside Japan, the governments of major countries have been investing heavily in decarbonization. I ask the Japanese government to fully support a "green recovery" by providing the necessary funds.



## 2. Developments in Nuclear Energy

**Kenji Kimura**, Senior Researcher  
Nuclear Energy Group  
Strategy Research Unit

On November 6, news came out that Hualong One (HPR1000), China's first domestic reactor, passed the examination based on the European Utility Requirements (EUR) and was certified. EUR is a compilation of numerous requirements stipulated by the major utilities engaged in the European nuclear power business. Though it is also necessary to gain local regulatory certifications before Hualong One can be introduced in Europe, acquisition of the EUR certificate demonstrates that the reactor fulfills the safety levels required in Europe.

Certificates such as these facilitate marketing to Western countries, but if we look at emerging markets, many Russian pressurized water reactors (VVERs) are being introduced without any certificate. In addition to Russia, which is actively promoting its reactors in emerging markets, we must closely monitor the nuclear export strategies of China, which is now the world's third largest nuclear powerhouse in terms of domestic installed capacity, going forward.

On November 11, the Nuclear Regulation Authority (NRA) approved safety measures of the recyclable fuel storage center, currently under construction in Mutsu City, Aomori, in accordance with the new regulation standards. When the center commences operation, the spent fuel currently accumulating at each nuclear power station will have a place to go to. Meanwhile, the spent fuel reprocessing facility in Rokkasho Village, Aomori was also approved its safety measures in July 2020, and on November 17, a decision was made to conduct a literature survey in Suttsu Town and Kamoenai Village in Hokkaido as part of the selection process for a final disposal site for HLW. Whether Suttsu and Kamoenai proceed to the next step will depend on the results of the discussion and the construction of the reprocessing facility is still unfinished, but Japan's nuclear back-end business is surely returning to life.

On November 11, the same day that NRA approved safety measures of the recyclable fuel storage center, Governor Murai of Miyagi Prefecture expressed approval to restart Tohoku Electric's Onagawa Unit 2. While it will still take years until the completion of safety features, the approval was a major step toward restarting operations. The reactor was safely shut down when it was hit by the Great East Japan Earthquake. This successful experience of dealing properly with an historic earthquake should be made widely known both in Japan and other countries, alongside the failures of Fukushima Daiichi.

On November 19, Kyushu Electric's Sendai Unit 1 restarted operations. The unit had been shut down due to periodic outage after failing to complete the construction of its back-up control centers by the specified deadline, and was then put back online after the facilities were completed. This makes Sendai Unit 1 the first nuclear power plant to meet all the requirements under the new regulation standards. The plant is expected to keep making further safety improvements voluntarily as it accumulates operational experience.



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

**Tetsuo Morikawa**, Senior Economist, Manager  
Oil Group  
Fossil Energies & International Cooperation Unit

Oil prices remain in a relatively narrow range ahead of the OPEC Plus meeting on November 30th and December 1st. The oil market hardly reacted to Joe Biden's victory in the presidential election. US stock prices continue to hit record highs after Pfizer announced the effectiveness of its Covid-19 vaccine on November 9. Oil prices then climbed, anticipating a recovery in demand, with Brent reaching \$48 on the 25th, but is not rising as powerfully as stock prices.

The number of new cases of Covid-19 is soaring, and the UK, France and others have imposed their second lockdowns. As fighting the virus is a top priority for Joe Biden, stricter Covid-19 measures could put downward pressure on US oil demand at least in the first half of the coming year. In terms of supply, Libya's output, which slumped to as low as 80,000 b/d in May this year, increased dramatically after a ceasefire was agreed in October and surpassed 1 mb/d in early November. According to the production cut agreement in April, OPEC Plus is due to ease the reduction from January 2021. However, there is speculation that the easing may be pushed back at the coming meetings.

Joe Biden is set to ramp up the US climate policy, including returning to the Paris Agreement and aiming at net-zero emissions by 2050. Regarding the oil market, his policy issues include expanding the use of EVs, regulating upstream development on federal lands, licensing the construction of pipelines such as Keystone XL and Dakota Access, environmental regulations for shale development, and sanctions on Iran and Venezuela. Among these, development on federal lands, construction of pipelines, and development of shale oil are expected to have relatively limited impact on oil prices. While shale oil will continue to drive the growth of US oil production, federal lands do not have promising shale oil resources. The US has abundant domestic oil supplies even without Keystone XL or Dakota Access. The Democratic Party "leftists (environmentalists)" are advocating a ban on hydraulic fracturing, which is essential for shale development. Although the candidates for Energy Secretary include leftists, Joe Biden himself accepts fracking. Meanwhile, expanding the use of EVs and changes to policies toward Iran and Venezuela will weaken oil prices. As a result of the sanctions imposed by the Trump administration, production by Iran and Venezuela has fallen by some 3.3 mb/d. While no clear comments have been made on Venezuela, Mr. Biden has shown a willingness to negotiate with Iran. Though it may take time for the US to return to the Iran nuclear deal, if sanctions are gradually lifted and exports increase, it will have a significant impact on oil prices. Overall, the market may consider that the Biden administration's policies will result in lower oil prices.

Meanwhile, the spot LNG price for North East Asia is rising. The average long-term contract price is estimated at around \$6, but the spot price has been just under \$7 since the beginning of November. This is due to the impact of production issues at Australia's Gordon and Prelude projects on the supply side, robust demand from China, and forecasts for a harsh winter on the demand side. The US LNG project will continue to move forward under the Biden administration, but the appointment of the Energy Secretary, for gas as well as for oil, may affect the regulation of shale development. Though unlikely at the moment, much tighter regulations on development may slow the growth in production and push up natural gas prices in the US (and undermine the competitiveness of US LNG).



#### 4. Update on Policies Related to Climate Change and Energy Conservation

Naoko DOI, Senior Economist, Manager  
Energy Efficiency Group  
Climate Change and Energy Efficiency Unit

The G20 Summit was held on November 21 and 22. The Leaders' Declaration adopted at the Summit mentioned "safeguarding our planet and building a more environmentally sustainable and inclusive future for all people as we recover from the pandemic." While 12 out of the G20 countries and regions have set the target of achieving net-zero GHG emissions by mid-century, eight resource-rich G20 countries, including Indonesia, Australia, Saudi Arabia and Russia, have not declared such a target. Accordingly, the Declaration did not mention "zero emissions" and instead included an aim to utilize the widest variety of fuels and technology options to realize the "3E+S", that is, to assure energy security, improve economic efficiency and adapt to environment, on the premise that safety is secured.

Presiding over the G20 Summit, Saudi Arabia advocated the Circular Carbon Economy (CCE), which was incorporated into the Declaration. CCE is a concept of dealing with CO<sub>2</sub> emissions from the use of fossil fuels by means of the four "Rs," that is, reducing, reusing, recycling, and removing. It is significant that Saudi Arabia, the world's largest oil producer, has presented the CCE as an option for addressing climate change.

From November 9 through 12, the First Finance in Common Summit was convened, and 450 public development banks from around the world discussed their responses to economic recovery through sustainable finance. The development banks that signed the joint declaration for the Summit will increase loans for energy conservation, renewable energy, and low-carbon technologies in order to achieve the 2030 emission reduction target and a decarbonized society in the long term. Note that the phased elimination of loans for fossil fuels, which European development banks initially advocated, was not included in the joint statement. Meanwhile, the statement included setting more stringent investment criteria, such as explicit policies to stop financing coal in view of COP26. The Asia Development Bank and Asian Infrastructure Investment Bank did not sign the joint statement, citing the lack of a formal decision on coal financing in their respective banks.

In Japan, full-scale discussions are under way headed toward Cabinet approval of the FY2021 Tax Reform Proposals scheduled for mid-December. The Government Tax Commission will consider whether to extend the tax break for eco-friendly cars and to include clean diesel cars in its scope. The Commission is also considering revising tax credits for housing loans, including new and remodeled energy-efficient houses, by extending the deadline for moving in, currently the end of December 2020, and toughening the annual income ceiling (currently set at 30 million yen). For businesses, the Commission is discussing easing corporate tax burdens as a special incentive for introducing energy-efficient facilities, to accelerate the efforts to achieve a carbon-neutral society.

On November 17, the Keidanren released the New Growth Strategy, its comprehensive growth strategy, for the first time in five years. Founded on establishing sustainable capitalism by 2030, the strategy includes visualizing issues of society through digital transformation (DX) and promoting green growth. Going forward, specific proposals will be created and submitted, to be incorporated in the growth strategy to be formulated by the Suga administration.



## 5. Update on Renewable Energies

**Akiko Sasakawa**, Senior Researcher  
New and Renewable Energy Group  
Electric Power Industry & New and Renewable Energy Unit

In October, the state of New York approved a new target aiming to dramatically increase the share of renewable electricity to 70% by 2030 and achieving zero emissions in the power sector by 2040. Governor Andrew Cuomo stressed that there is no time to waste in the fight against climate change, and that the state of New York continues to lead by advancing the most ambitious policies in the nation to accelerate the expansion of renewable energy. Governor Cuomo, currently in the spotlight as a leader in the country's fight against Covid-19, is now also exercising leadership in boosting renewable energy.

With the new target, the 2030 renewable electricity target prescribed in the Clean Energy Standard is raised from 50% to 70%. The Standard was set as part of the Reforming Energy Vision announced by Governor Cuomo in April 2014. As initiatives to boost the share of renewable electricity, currently only 28%, to 70% within 10 years, plans for phased development of mega renewable power sources, such as wind and hydropower, and upgrades to the power grid have been presented. The target also aims to create jobs in clean energy and for recovering from the coronavirus-induced economic slump.

Alongside these efforts, it is notable that the initiative focuses on the use of distributed energy resources such as solar PV and the establishment of a system to do this efficiently. The state of New York suffers from old infrastructure, particularly in New York City which accounts for roughly 70% of the state's electricity demand, but it is not easy to upgrade the infrastructure due to the many historic buildings and skyscrapers in the city. So far, the state has been investing in implementing peak shifts and installing private power generators instead of upgrading the generation and transmission infrastructure. Under the new target, the state will work on securing a flexible supply of electricity into the grid by using digital technologies to utilize small, distributed consumer-side energy sources, such as solar PV, battery cells, EVs, and heat pumps, more efficiently.

There are high expectations for distributed energy sources as a new supply source and adjustment capacity for electricity, as well as increasing the share of renewable electricity and substituting investment in related infrastructure. To utilize distributed energy sources efficiently, the state is backing the establishment of a system that networks and controls distributed energy sources using digital technologies, while upgrading its trading market and tariff regulations. This includes plans to build virtual power plants (VPPs) that integrate and control systems consisting of household solar PV and battery cells, and use them as emergency power supplies and for providing demand response services. Such efforts to utilize distributed energy sources are being pursued also in Japan mainly by power companies and manufacturers. In November, Germany's Next Kraftwerke, one of the world's largest VPP operators, formed a new company with Toshiba to start providing a service to support the use of distributed and other energy resources.

The initiatives of the state of New York, which is pursuing ambitious renewable electricity targets and implementing multi-faceted measures, deserve attention as a model that will drive the expansion of renewable energy in America under the new government as well.



**Past IEEJ Events**

**Energy and Economy Indicators of Japan**

**IEEJ Homepage Top**

**Back Numbers of *IEEJ e-Newsletter***

**Back Numbers of *IEEJ Newsletter* (Original Japanese Version - Members Only)**



***IEEJ e-Newsletter* Editor: Yukari Yamashita, Managing Director**

***IEEJ j-Newsletter* Editor: Ken Koyama, Senior Managing Director**

**The Institute of Energy Economics, Japan (IEEJ)**

**Inui Bldg. Kachidoki, 13-1 Kachidoki 1-chome, Chuo-ku, Tokyo 104-0054, Japan**

**Tel: +81-3-5547-0211 Fax: +81-3-5547-0223**



**IEEJ : December 2020    ©IEEJ 2020**