IEEJ e-NEWSLETTER

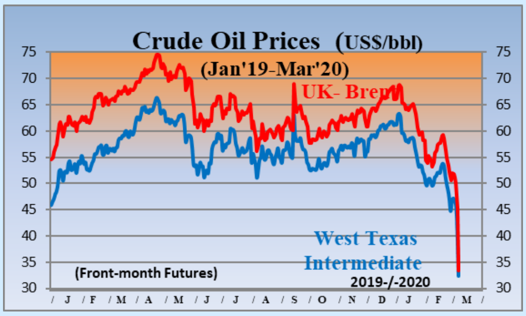
No. 180

(Based on Japanese No. 198)

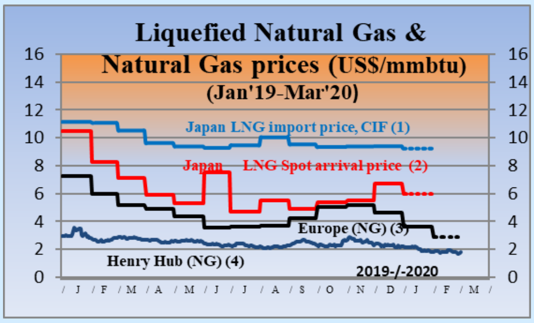
Published: March 10, 2020

The Institute of Energy Economics, Japan

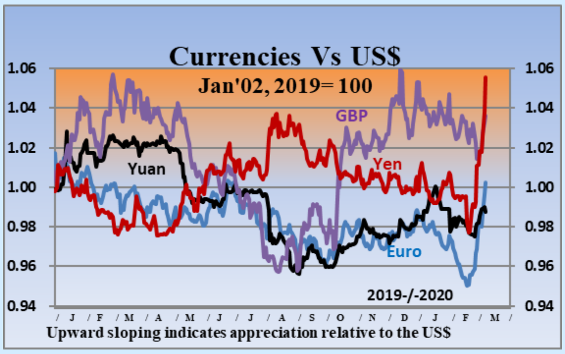
(As of March 9, 2020)



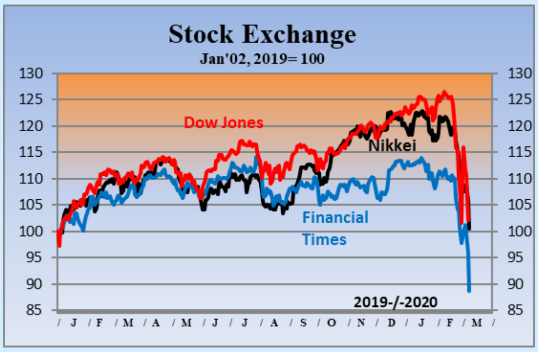
Source: DOE-EIA, Financial Times, NASDAQ



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



Source: x-rates.com



Source: Financial Times

Contents

Summary

【Energy Market and Policy Trends】

1. Developments in Nuclear Power

The nuclear regulators of the UAE issued a 60-year operating license for Barakah Unit 1 currently under construction in the country. The unit aims to enter commercial operation within 2020.

2. Recent Developments in the Oil Market

New cases of COVID-10 infection are increasing faster outside of China. Unless the OPEC Plus decides to deepen the production cut at the meeting on March 5 and 6, oil prices will face more downward pressure.

3. Recent Developments in the LNG Market

Because of uncertainty over the Chinse market caused by the new coronavirus outbreak, spot gas prices stay low across the globe led by the record low of LNG in Northeast Asia.

4. Update on Policies Related to Climate Change

The world’s largest asset manager, US BlackRock, joined Climate Action 100+, an investor group that is demanding companies to address climate change. The U.S. Republican Party introduced three bills on climate change to the House of Representatives.

5. Update on Renewable Energies

The impact of delays in the production and supply of solar PV and wind power equipment and battery cells in China is gradually spilling over to other countries.

1. Developments in Nuclear Power

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

On February 17, the Federal Authority for Nuclear Regulation (FANR) of the United Arab Emirates (UAE) announced that they have issued a 60-year operating license for Barakah Unit 1 (South Korean PWR, 1,400 MW) completed in March 2018 to NAWAH Energy Company, a subsidiary of the Emirates Nuclear Energy Company which is in charge of the plant's operation and management. The UAE's first-ever nuclear power station, the Barakah Nuclear Power Station project, is being undertaken by a consortium of South Korean companies including Korea Hydro & Nuclear Power. NAWAH Energy Company is making final preparations for loading nuclear fuel assemblies ahead of the plant start-up, and will conduct power ascension and other commissioning tests for several months, aiming to start commercial operation within 2020.

An announcement was also made on February 20 by Belarus' Nuclear and Radiation Safety Department Gosatomnadzor that an inspection had commenced at the country's Ostrovets Unit 1 (Russian VVER, 1,200 MW), constructed by Russia's state nuclear energy corporation Rosatom, ahead of loading fuel into the reactor. The inspection will take up to 30 days as required by law, and in parallel, Gosatomnadzor will also check the operation & management and technological capabilities of the operator, the Directorate for Nuclear Power Plant Construction. Unit 1 is scheduled to start operation in 2020 and Unit 2 in 2021.

Other countries constructing VVERs with technological help from Russia include Turkey and Bangladesh, and Russia is steadily manufacturing key equipment for these construction projects in factories in Russia. On February 12, Atommash JSC Volgodonsk factory, one of the factories of Rosatom's subsidiary, performed the final welding on the first reactor pressure vessel for Turkey's Akkuyu Unit 1 and on the same day, the Petrozavodskmash factory completed the major body parts for the hydraulic-driven pressurizer of Bangladesh's Rooppur Unit 2.

In the 1970s, U.S. General Electric and Westinghouse were manufacturing large volumes of equipment not only for their own country but also for Mexico, Spain, and Japan. The same thing is now happening in Russia. As many countries struggle to control costs in building new nuclear plants, one of the solutions is to "develop continuous construction experience so that the lessons learned from plant construction can be used for the next plant." Russia's international experience in nuclear new builds will be highly attractive not only to emerging countries considering introducing nuclear power but also for developed countries that are struggling to control the rising costs of nuclear new builds and plant operation.

On February 19, Shikoku Electric filed an objection to the temporary restraining order and appealed against the injunction to suspend Ikata Unit 3 issued by the Hiroshima High Court on January 17. If the timing of the Court's reply coincides with the expiry of the transitional period for the plant's specific safety facilities in March 2021, the plant may have extremely limited operation time in FY2020. The outcome of the appeal must be closely watched as it will determine whether the plant will restart within FY2020.

2. Recent Developments in the Oil Market

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

The new coronavirus is hitting the global economy, not just the oil market. 80,000 people have been infected and 2,700 have died as of February 25. Wuhan, the epicenter of the virus, is in lockdown, with many other Chinese cities restricting people from leaving their homes or traveling. The number of domestic travelers has plunged by 80% since January 25, and many airlines are cutting flights or shutting down entire air routes to and from Chinese cities. Supply chains of overseas firms are being affected as the week-long Lunar New Year holidays have been extended by more than 10 days and many factories remain shut. The National People’s Congress scheduled for March 5 has also been postponed.

The Chinese government has mobilized 66.7 billion yuan in public spending, offered preferential measures for companies and individuals engaged in preventing the epidemic, and lowered interest rates. However, with the virus yet to be contained, the Chinese economy is sure to slow down. The IMF estimated China’s 2020 GDP growth rate at 6.0% in World Economic Outlook on January 9th. However, many financial institutions have lowered their estimates to the 5% range. The impact on the global economy appears unavoidable.

Oil demand has also been hit hard. In its monthly Oil Market Report released on February 13, the International Energy Agency estimated that China’s February demand would decline by as much as 0.79 mb/d (6%) in 2010 Q1 year-on-year and lowered its forecast for global oil demand in 2020 by 0.5 mb/d (0.5%) to 101.5 mb/d. Oil prices were already under downward pressure due to weak supply-demand fundamentals, and since the outbreak, the Brent price has dropped from $65/bbl on January 20 to as low as $53/bbl on February 10.

Market participants are closely watching whether China manages to contain the virus, specifically, when the number of new cases starts to fall. The number of new cases in China has fallen from as high as 3,925 on February 5 to 518 on February 25 but is rising quickly in other countries such as South Korea, Japan, Italy, and Iran. As of late February, the disease is yet to be declared a pandemic, or a global epidemic, with 97% of cases and 99% of deaths being in China, but that does not make the situation any less dangerous.

In view of the certain decrease in oil demand, OPEC Plus is weighing the possibility of deeper production cuts. On February 8, the Joint Technical Committee of OPEC Plus suggested continuing the joint production cut till the end of 2020, and also deepening the production cut in the second quarter, reportedly by 0.6 mb/d. Saudi Arabia appears to be positive towards larger production cuts while Russia is reluctant. Brent rebounded to $59/bbl by February 20 after factoring in the decelerating growth of new cases and a possible tougher production cut by OPEC Plus, but then fell again to $55/bbl by the 25th as new cases increased outside China. If OPEC Plus does not deepen the production cut at the meeting scheduled for March 5 and 6, oil prices are likely to face even greater downward pressure.

3. Recent Developments in the LNG Market

Hiroshi Hashimoto, Senior Analyst
Head of Gas Group
Fossil Energies & International Cooperation Unit

Spot gas prices across the world have been sticking to low levels for some time. As the most influential index of assessed spot LNG prices in Northeast Asia, JKM™ for March 2020 delivery slid down to a record low, close to USD 3.5 (per million Btu), on Monday 3 February, the lowest in the history as a front-month delivery price (undercutting the previous record in May 2009), followed by levels below USD 3 from Friday the 7th day to the middle of February. The prices for April delivery have also been at low levels, mostly under USD 3 since Thursday 6 February. However, the price volatility may have been more exaggerated than the actual demand and supply balance as aggressively low-price bids have been made by traders rather than final LNG consuming utility buyers.

NBP Futures (of the United Kingdom) also went below USD 3 (below GBP 23 per therm for the first time since September 2009) on Monday 3 February 2020, further sliding down to around USD 2.7 (below GBP 21 per therm) on Friday 14 February. TTF Futures (Netherlands) are also below USD 3 for the moment. Henry Hub Futures have been under USD 2 for the first time in four years since 20 January 2020. Although LNG from the United States may have more competitive advantages with lower domestic gas prices in the country, excessively cheap gas prices could erode profitability of natural gas production business, which should not be viewed as the optimal situation.

The most obvious bearish factor of the LNG market has been the uncertainty over the Chinese market which had led the growth of demand in the global LNG market during the past three years, caused by the outbreak of the new coronavirus. There have been reports of force majeure notices rendered from major LNG importers in the country to some LNG sellers. Irrespective of applicability of force majeure clauses, some LNG receiving terminals have had difficulties in securing sufficient personals to carry out unloading operations of several LNG cargoes. While China apparently received 88 LNG cargoes in January 2020, several percentage increase from one year ago, it is expected to subdued LNG activities in February and thereafter, caused by smaller gas demand.

Along with the immediate uncertainty, natural gas production and consumption figures for 2019 have been revealed. According to NDRC (National Development and Reform Commission), China's natural gas production, import and consumption during 2019 were respectively 177.7 bcm, 132.2 bcm and 306.7 bcm, increasing year-on-year by 11.5%, 6.5% and 9.4%, compared to growth in consumption by 18% in 2018, and by 15% in 2017, indicating an already considerable slow down in 2019. According to preliminary figures of China's trade statistics, the country imported 60.25 million tonnes of LNG in 2019, a slightly-less-than-12% increase year-on-year. The growth rate was also considerably smaller compared with more than 40% per year in 2017 and 2018.

4. Policies Related to Climate Change

Takahiko Tagami, Senior Coordinator, Manager
Climate Change Group
Climate Change and Energy Efficiency Unit

On January 9, it was announced that U.S. BlackRock, the world's largest asset manager with $7 trillion in assets under management, was joining Climate Action 100+. Climate Action 100+, a group of investors that has been demanding Shell and BP to align their business with the target of the Paris Agreement, did not have any major U.S. investors among its members until now. With the addition of BlackRock, Climate Action 100+ now has a collective total of $41 trillion of assets under management.

On January 14, BlackRock founder and CEO Larry Fink said in his annual letter to CEOs of the world's major companies that they will be increasingly disposed to vote against the management and board directors when companies are not making sufficient progress on sustainability-related disclosures and the business practices and plans underlying them. The CEO has said that the decision was made in view of the economic impacts of climate change, is strictly business, and politics isn't part of this. To date, BlackRock has had one of the worst voting records on climate issues at general shareholders' meetings.

In the United States, the Iowa Caucuses were held on February 3 and the New Hampshire Primary on February 11, where Peter Buttigieg (former Mayor of South Bend, Indiana) and Bernie Sanders came in first and second. Mr. Buttigieg released his plan for climate change back in September 2019. The plan pledges to (1) implement a bold and achievable Green New Deal, (2) build a clean electricity system with zero emissions and require zero emissions for all new passenger vehicles by 2035, (3) invest more than $200 billion in federal clean energy R&D funding over 10 years and support three innovative investment funds capitalized with $550 billion in total, (4) deploy at least one gigaton of annual CO_2 removal capacity by 2040, including direct air capture, and extend and broaden the tax credit to capture carbon (45Q), and (5) assess a border adjustment tax on any imported goods not subject to a price on carbon. Mr. Buttigieg, however, withdrew before the March 3 Super Tuesday and Mr. Biden and Mr. Sanders remained in the race after that.

On February 12, the Republican Party submitted three bills to the House of Representatives as part of its Environment Plan, aiming to: (1) establish forest management, reforestation, and utilization practices which lead to the sequestration of greenhouse gases, (2) establish and support the research, development, and demonstration of advanced carbon capture and utilization technologies at the Department of Energy, and (3) provide for an increased credit for carbon dioxide sequestration and for direct air capture facilities. Introducing these bills reflects the mounting demand from voters for climate action and is intended to show voters that the Republican Party cares about climate change. The GOP Environment Plan is expected to focus on carbon capture, clean energy, and conservation. President Trump also mentioned Trillion Trees Plan in his State of the Union address on February 4. However, the bills have been criticized by conservative Republicans, with one conservative support group mentioning that they might withdraw support for lawmakers who support liberal environmental policies.

5. Update on Renewable Energies

Yoshiaki Shibata, Senior Economist, Manager
New and Renewable Energy Group
Electric Power Industry & New and Renewable Energy Unit

The spread of the new coronavirus is causing chaos in renewable energy markets around the world. Though no major problem has been reported in Japan yet, the impact within China, where solar PV, wind power, and battery production facilities are concentrated, has apparently begun to spill over to other countries.

In China, the delay in the return of workers due to the extended Lunar New Year holidays and the mandatory 14-day quarantine, difficulty in securing manpower due to travel restrictions, and disruptions in logistics networks are interfering with the manufacture and supply of raw materials and components, resulting in delays in the construction of solar PV and wind power plants. As the FIT purchase price of capacities that do not meet their grid connection deadlines will be reduced, the Chinese Photovoltaic Industry Association (CPIA) has asked the authorities to extend the deadlines.

In Jiangsu, Zhejiang, Guangdong, and Anhui Provinces where major solar PV manufacturers are located, the operation rate of production facilities is plummeting and is not expected to normalize soon. There is also concern over the rising price of solar cell modules due to shortages of raw materials and components. For wind power, whose production facilities and construction projects are concentrated in Shanghai City and Guangdong, Jiangsu, and Zhejiang Provinces, some predict that the expected new wind power capacity for 2020 will decrease by 10-50% due to disruptions in component supplies and construction. In addition, the expected battery production volume could fall by 10% in 2020.

Outside of China, the delay and suspension of supplies from China are starting to have an impact in India, South Korea, Taiwan, Australia, and other countries that heavily depend on China. In China, production facilities have gradually restarted since mid-February, but it will take time for exports of components and products to return to normal as domestic transport and port operations remain chaotic.

In South Korea, solar panel assembly plants have suspended operation due to the disruption of component supplies from China. India is experiencing delays in the arrival of solar panels and inverters from China and is considering Malaysia and Taiwan as alternative sources but their prices are high. In Taiwan, which imports most of its silicon wafers, aluminum frames, and glass from China, there are forecasts that the supply delays will prevent the country from achieving the 2020 solar PV installation target (2.2 GW). Australia, which depends on Chinese products for 90% of its solar PV, is also looking for other exporters as their stockpiles of solar PV modules run out, but is again being deterred by high costs. As Australia depends on China also for battery cells, it is becoming increasingly difficult to meet the new capacity target (1 GW) for large batteries for power grids.

Vestas, which has the top share in the wind power market, manufactures blades, nacelles, power generators, and control systems in Tianjin and is highly dependent on China. If the current situation persists, the supply delay in the wind power sector could spread worldwide.

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, Director
IEEJ Newsletter Editor: Ken Koyama, Managing Director
Inui Bldg. Kachidoki, 13-1 Kachidoki 1-chome, Chuo-ku, Tokyo 104-0054
Tel: +81-3-5547-0211 Fax: +81-3-5547-0223