IEEJ e-NEWSLETTER

No. 23

(Based on Japanese No. 121)

Published: October 15, 2013

The Institute of Energy Economics, Japan
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

Contents

Summary

【Energy Market and Policy Trends】

1. **Discussions on Energy Policies in the Basic Policy Subcommittee**
2. **The Second LNG Producer-Consumer Conference**
3. **Oil Prices Propped Up by the "Long Arab Spring"**
4. **Will the New Thermal Power Regulation by the US EPA Accelerate the Development and Deployment of CCS?**
5. **Chinese Solar Industry Required to Undertake Structural Reforms amid Business Recovery**

Summary

【Energy Market and Policy Trends】

1. Discussions on Energy Policies in the Basic Policy Subcommittee

Among meetings held by the Basic Policy Subcommittee, renewables and nuclear were discussed in the third meeting, strategies for securing resources and the oil and gas supply chain in the fourth meeting, and reforms of the electric power system and the structure of the energy industry in the fifth meeting.

2. The Second LNG Producer-Consumer Conference

The Second LNG Producer-Consumer Conference was held. One of the highlights was the announcement of specific actions by the Japanese government to deal with the Asia premium of LNG prices.

3. Oil Prices Propped Up by the "Arab's Long Spring"

Oil prices have remained high for some time, partly due to the destabilization of the MENA region triggered by the Arab Spring. The various causes of confrontation in the region will continue to drive buying in the oil market.

4. Will the New Thermal Power Regulation by the US EPA Accelerate the Development and Deployment of CCS?

The new CO2 emissions standard set by the US EPA placing tough restrictions on coal-fired thermal power is likely to help reduce CO2 emissions in the short to medium term. However, the risk of putting off the development and expansion of CCS, which is necessary for tackling long-term climate change, must also be considered.

5. Chinese Solar Industry Required to Undertake Structural Reforms amid Business Recovery

Buoyed by soaring demand in Japan and China, the Chinese solar panel manufacturers are regaining financial strength. As the glut continues, however, the effect of the policies for restructuring and strengthening the foundation of the industry must be closely monitored.

1. Discussions on Energy Policies in the Basic Policy Subcommittee

Akira Yanagisawa, Senior Economist
Energy Data and Modeling Center

On September 4, 17 and 24, the third to fifth meetings of the Basic Policy Subcommittee were held. The themes of the meetings were “the situation surrounding renewable energies” and “the response to the accident at Tokyo Electric Power’s Fukushima Daiichi Nuclear Power Station and the issues for the future” at the third meeting, “the medium- to long-term strategy for securing resources based on the changes in the international supply-demand structure of energy” and “building a robust oil and LPG supply chain for securing a stable supply” at the fourth meeting, and “the situation of the electric power industry after the reforms of the electric power system”, “the direction of the natural gas supply chain and the reforms of the gas system” and “the outlook for the new energy industry structure” at the fifth meeting.

The third meeting discussed the problem of excessive emphasis on increasing the introduction of solar photovoltaic among various renewable energies, in view of the cost of renewable energies and the roles in the generation mix. The discussion on nuclear power focused on the mechanism of the safety measures; some members commented that the Japanese government should clearly express its intentions on nuclear policy.

The fourth meeting discussed the strategies for securing resources, particularly oil and natural gas. To counter the high import prices, measures such as resource development and cooperation with neighboring countries, diversifying the energy mix, and taking advantage of the Shale Gas Revolution were suggested. The discussion on oil and LPG supply chains focused on domestic distribution, and confirmed the robustness of liquid fuel supply in case of disaster. The meeting also highlighted the difficulty of implementing quick and effective measures for maintaining the infrastructure in depopulated areas, including gas stations which are decreasing in number.

In the fifth meeting, the members agreed on promoting reforms of the electricity and gas systems, although opinions differed on the pros and cons of the market mechanism and the adverse effect of the reforms on the stable supply of electricity. This area will continue to require careful consideration.

IEEJ CEO and Chairman Masakazu Toyoda commented in the meeting as follows:

- Regarding the introduction of renewable energies, there is disproportionate emphasis on solar photovoltaic, and the introduction of geothermal and wind power has not progressed. A system for rebalancing and encouraging geothermal and wind power is needed.
- It is important to clarify the need for and the role of nuclear, and to respond to public anxiety about its safety. In the US, there are incentives for encouraging voluntary efforts for ensuring safety; it is not sufficient to merely preach “the importance of voluntary efforts”.
- We should be aware that US’s commitment to stability in the Middle East will weaken due to the Shale Gas Revolution. It is important to continue to ensure stability through cooperation in technology, health-care and education. It is essential to maintain the goal of doubling the ratio of Japan’s domestic and self-developed energies in the next Basic Energy Plan as in the previous Plan, and for the government to provide funding and support for human resources.
- The public sector must help eliminate the Asia premium of LNG prices, such as seeking to ban the Destination Clause in collaboration with other Asian countries based on the experience of the EU. To make the oil industry stronger, the industry must evolve into a comprehensive energy industry; the policy of escaping from the dependence on oil must be reviewed.
- Many countries are facing various problems due to the deregulation of electricity; supply stability cannot be achieved merely by deregulation. With its low energy self-sufficiency rate, Japan must design its energy system with great care. The deregulation of gas should concurrently help eliminate the Asia premium.

2. The Second LNG Producer-Consumer Conference

Tetsuo Morikawa, Manager
Gas Group, Oil and Gas Unit

The Second LNG Producer-Consumer Conference was held on September 10 in Tokyo, gathering more than 1,000 participants from 50 countries and regions. Like last year, the conference was attended not only by executives of buyers and sellers of LNG but also by ministerial-level representatives of both exporting and importing countries. The key points of the discussions are summarized below.

First, Japan announced a variety of specific actions to deal with the Asia premium of LNG prices. In his speech, METI Minister Motegi welcomed the initiative proposed by the IEEJ to establish a multilateral LNG research group of various research institutions of LNG-related countries, in addition to the start of a study on the joint purchase of LNG by Japanese and overseas power companies and bilateral joint studies between Japan and Europe, and Japan and India, that have already been announced. Mr. Ueda, Director-General of the Agency for Natural Resources and Energy, spoke about the impartial review of electricity tariffs factoring in the efforts of the power companies to reduce fuel costs, and the establishment of a 1 trillion yen debt guarantee system by JOGMEC for projects that would help lower the import price of LNG. Many commented in favor of a pricing system based on the actual supply and demand of natural gas and LNG, but the discussion did not agree on an actual roadmap for setting up a hub in Asia.

Second, while all buyers questioned the level of LNG prices and the pricing system, reactions of the sellers differed. Most traditional sellers avoided giving a direct answer or defended the petroleum-linked pricing system, whereas the newer sellers generally reacted positively to the buyers' requests. In particular, Freeport LNG, which signed a liquefaction agreement with Japan and Korea the day before the Conference, described its Henry Hub-based pricing system as "based on the request of customers".

Third, the prospects for a major increase in new LNG supplies are becoming increasingly realistic. There has been measurable progress this year in the new Russian LNG projects of Vladivostok, Sakhalin-1 and Yamal such as the participation of Japanese and Chinese companies, and in the China-Russia gas pipeline negotiations. Furthermore, in addition to Freeport, the US government granted non-FTA export approval to the Cove Point Project the day after the Conference. Moreover, as reported in the August issue of the IEEJ Newsletter, in addition to the 110 million tonnes/year of liquefaction capacity of new projects in Australia and the US, there will be additional liquefaction capacity from LNG projects being planned in countries like Canada, Russia and Mozambique, totaling nearly 100 million tonnes/year. These vast additional capacities are expected to put downward pressure on LNG prices towards 2020. On September 24, Prime Minister Abe visited Canada, and announced plans to launch ministerial-level talks for securing LNG from Canada in the near future.

While not directly related to the discussions, the fact that several governments and companies are starting to use this Conference as a forum for announcing new policies and agreements shows the growing importance of this Conference for the participants.

3. Oil Prices Propped Up by the Arab's Long Spring"

Yoshikazu Kobayashi, Manager
Oil Group, Oil and Gas Unit

Oil prices have remained high for some time. Although the Brent price dropped below $100/bbl in April, it gradually rose again and has remained around $110/bbl since July. The continuing high price of oil combined with the depreciation of the yen will significantly affect Japan's economic recovery.

On a global demand and supply basis, there has been a glut of oil for more than 18 months. Although some attribute the price hike to disruption of the oil supply since the beginning of the year, the global excess supply persists due to rising production in the US and Saudi Arabia. Oil prices would surely fall were it not for the political unrest in the Middle East and North Africa, particularly Egypt, Libya and Syria. In particular, the supply of more than 1 million B/D from Libya has been affected by a workers' strike at the oil exporting terminal, causing locally tight supply and demand for light oils such as Brent.

Meanwhile, Syria and Egypt, though both are oil producers, export very little to the international market, and so disruption of oil exports from these countries has little or no effect on the physical market balance. However, the sectarian strife in Syria spreading to neighboring Iraq, and Egypt's domestic turmoil affecting the Suez Canal, a strategic sea link, are commonly recognized as possible "oil supply disruption" scenarios among the market players, driving buying in the futures market. Currently, international oil prices are greatly affected by the expectations of the players in the futures market, and the events successively occurring in the Middle East are boosting expectations that oil prices will continue to rise, thus keeping prices high. In late August, the futures market reacted to the looming possibility of a military strike on Syria, causing oil prices to surge, but then settled down when an agreement was reached on the disposal of chemical weapons and the threat of a military strike receded. However, the situation remains uncertain.

The continuing political volatility in Egypt, Libya and Syria was triggered by a series of popular movements that began in 2011. Egypt and Libya are still searching for a new political governance to replace their ousted regimes, while Syria has been mired in a civil war between the government and the rebel forces for more than two years. The "Long Arab Spring" continues to bedevil the international oil market.

International oil prices are affected by not only the situation in the MENA region but also the global macroeconomic situation and the monetary policies of the US. However, the wide-ranging causes of confrontation of sectarian, ethnic and regional origin behind the current unrest in the MENA region are likely to persist and cause oil prices to remain high.

4. Will the New Thermal Power Regulations by the US EPA Accelerate the Development and Deployment of CCS?

Hiroki Kudo, Assistant to Managing Director
Global Environment and Sustainable Development Unit

On September 20, the US Environmental Protection Agency (EPA) announced a new CO2 emissions standard for new thermal power plants. The regulation of CO2 emissions from thermal power plants by the EPA is a highlight of the climate change policy of the second Obama administration, and there is keen interest in the level of the standard, and its feasibility.

The CO2 emissions standard for new coal-fired thermal power plants was set at 1,100 lbs (pounds) /MWh, similar to that for large gas-fired thermal power plants (1,000 lbs/MWh). This is an extremely tough figure considering that the CO2 emissions of the most efficient coal-fired thermal power plants today are approximately 1,800 lbs/MWh.

Together with this strict emissions standard, the EPA has set some flexibility for the operation of the plants: a plant may be evaluated based on its net CO2 emissions provided that they build and operate a CCS (carbon capture and storage) facility on the premises. Though already in the demonstration phase in some countries and in use in oil fields for enhanced oil recovery, CCS is not a realistic choice due to the high initial cost.

Adding the construction of CCS to the new requirements suggests political will to encourage CCS technology. However, with gas-fired thermal power gaining competitiveness thanks to the increase in shale gas production, deployment of CCS could disadvantage the new coal thermal plants in the short to medium term.

Facing opposition even from the Democrats in Congress representing coal-producing states, the new standard will likely face domestic political opposition. President Obama expressed commitment to the standard when he announced the Climate Action Plan in June, clearly conscious of Congress. However, as opposition to the standard has mounted with the announcement of the actual figures, it could become a major campaign issue for the midterm election.

Regarding preventing global warming, the new standard will certainly encourage the shift from coal to gas for economic reasons, and help reduce CO2 emissions in the US in the short to medium term. However, in the long term, it could discourage the development and deployment of CCS technology. Like other developed countries, the US aims to slash GHG emissions by 2050, for which CCS technology is essential. However, focusing on short-term measures could make it difficult to achieve the long-term target. The possible consequences of the new EPA regulation highlight the importance of the time factor in designing policies to achieve the ultimate goal to counter climate change, in other words, how best to develop and diffuse technologies that will become necessary in the future.

5. The Chinese Solar Industry Required to Undertake Structural Reforms amid Business Recovery

Hisashi Hoshi, Board Member, Director
New and Renewable Energy & International Cooperation Unit

The major Chinese solar panel manufacturers are regaining financial strength. All major companies, including the global leader, Yingli Green Energy, expect shipments to exceed production capacity. Panel prices have increased 23% since the beginning of the year, a turnaround from a market which had lost over 60% of its value in the past two years. Some top companies even expect to return to profitability for the first time in two years.

Behind this dramatic comeback of the major Chinese manufacturers, many of which had deficits of tens of billions of yen last year, is the soaring demand in China and Japan, driven by the recently introduced Feed-in Tariff (FIT) system in both countries. This has led to the explosive growth of solar power in both markets, with 9-10 GW and 5-8 GW of new capacity expected in China and Japan in 2013, respectively.

Will the Chinese panel industry continue to stabilize? On the demand side, given the limited space for mega solar power in Japan, the current pace is not likely to last long. On the other hand, China aims to add 35 GW by 2015, and a further 10 GW each year beyond 2014. Yet European countries are reviewing their systems for installing new capacity and will not be as lively as before.

On the supply side, the world has 60-70 GW of production capacity, yet estimated global demand is only 34 GW for this year. Although this is the highest ever, the glut of supply remains. The panel industry will remain under downward market pressure.

The Chinese government has decided to strengthen its solar power industry. The new rule announced by the Ministry of Industry and Information Technology (MIIT) on September 17 prohibits solar power firms from expanding their production capacity without technological improvement, and requires them to spend 3% of sales or at least 10 million yuan (160 million yen) each year on R&D. The rule also sets a minimum production capacity for each area, and requires any company that fails to meet the minimum to expand its capacity based on the requirement for technological improvement. Furthermore, the rule defines a baseline for the conversion factor of panels, and new facilities will be subjected to a stricter baseline than existing ones. Any facility failing to meet this new rule will be required to achieve the goal through a merger and technological innovation under government supervision.

The government policy to encourage restructuring of the industry will boost structural reform of China’s solar power industry and have various implications on the global solar panel market. The reform could enable Chinese products to gain essential competitiveness in quality and scale, and make them a stronger threat for Japanese manufacturers in the Japanese market where they now have a 30% share.

Will the new rule be effective? The solar power industry has been protected by regional governments and has provided jobs and tax revenues, so the regions are expected to provide some opposition. Both the impact on the global market and changes in regional politics must be closely monitored

More information on IEEJ can be found by clicking below.

IEEJ Calendar of Events

Energy Indicators of Japan

IEEJ Homepage Top

Back Numbers of *IEEJ e-Newsletter*