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1. Recent developments in the LNG industry

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Japan imported 41.2 million tonnes of LNG in the April-September 2013 period, representing a 2.8% year-on-year decline, as electric power utility companies reduced their thermal power generation by 2.1% and city gas sales grew by only 0.5%. Still the corresponding payment for LNG imports grew again by 11.8% to JPY 3.4 trillion despite a decline in USD denominated unit prices, due to less favorable foreign exchange rates of JPY 95-99/USD compared to JPY 78-82/USD a year earlier.

Japanese buyers have relatively small appetite for spot cargoes as they have already procured most of incremental volumes under contracts taking into account of slow progress of nuclear restarting. What could shake the spot LNG market more in the ongoing northern hemisphere winter include additional demand in China, where four new import terminals are set to be operational in 2013 and 2014, and other emerging import markets such as Argentina, as well as developments in LNG producing countries in the Atlantic basin, who have steadily increased exports to the Pacific markets during the past three years - whether they will continue stable performances.

LNG industry newsletters have reported tightening spot LNG markets and increasing assessed spot prices in recent weeks. Some sellers may want to take advantage of those arguments of immediate spot market tightness by linking it with longer-term demand and supply balances, in order to maintain higher negotiated prices under both short-term and long-term transactions. Asian buyers should have fine eyes not to overlook factors that could slow down global demand, such as LNG surplus in Europe caused by the sluggish demand over there, in order to avoid unnecessarily expensive prices even for a small number of marginal spot cargos.

Australia supplied 8.9 million tonnes of LNG to Japan in the April-September 2013 period, representing 22% of Japan's total LNG imports. Yet multiple additional LNG production projects are being developed in Australia based on Western Australia's offshore reserves and coalbed methane (CBM) resources in Queensland. Australia's annual LNG production capacity is expected to expand from current 24 million tonnes to nearly 80 million tonnes by 2018, making the country the largest LNG exporter in the world. There still remains, however, concern over additional cost overruns and implementation delays of projects in the country. In addition recent local media reports attract attention to anticipated higher prices of natural gas in eastern Australia with imminent startup of LNG export plants. Close attention should be paid on whether large-scale production of CBM - which has different production profiles from those of conventional natural gas - will smoothly continue.

Meanwhile Russia exported 4.2 million tonnes of LNG to Japan in the six-month period ending in September 2013, representing 10% of Japan's total LNG imports. In a likely bid to increase its share in LNG sales into Asia, Moscow enacted a law ending Gazprom's monopoly on gas exports as of the beginning of December 2013. In addition to the incumbent, Novatek and Rosneft have stepped up their respective LNG marketing campaigns to Asian buyers. Buyers may need some more time to judge which of the Russian new projects will come to fruition first.

2. Introducing the Market Mechanism and Competition for Promoting Solar Power

Hisashi Hoshi, Board Member, Director
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The European Commission is urging members of the EU to review their renewable energy policies. In its communique on the European electricity market released on November 5, the Commission cautioned against excessive incentives for renewables, and emphasized the need for healthy competition. Specifically, the Commission advocates giving up the present Feed-in Tariff (FIT) system and switching to the Feed-in Premium (FIP) system, in which the premium is added to market prices, and to switching to auctions and quota obligations instead of purchasing at the full amount.

Behind this proposal lies the recent trial and error situation and increasing social cost of Europe's renewable policies. In addition to the problem of the FIT premium in Germany (see page 7 of this issue), the FIT system is increasing the budget deficit of Spain, which is planning to abandon the system altogether. The system was abandoned last July in Italy, just as the renewables promotion budget had been used up. The outlook for the FIT system, which was once the key to introducing renewables, is grim.

Undoubtedly, the FIT system is effective for spurring the mass introduction of renewable electricity because it is based on the principle of "purchasing at the full amount" at "preferential prices". From the outset, it is free of the biggest risks in business: whether the product will sell, and at what price. These are overwhelming incentives in normal business and are a powerful means of attracting private-sector investment.

However, the implications of this promotion policy must be understood separately for solar power and other renewable energies. For example, many renewable power sources have inherent business risks that greatly affect their profitability, such as concerns for securing resources and fluctuations in resource procurement costs for biomass, and uncertainty of hydrothermal resources for geothermal power. In contrast, there are no particular uncertainties regarding solar power. The hours of daylight will not fall dramatically in a couple of decades, companies can reasonably predict how the conversion efficiency of solar panels will degrade over time based on their long experience, and the output of panels is warranted by their manufacturers. Thus, the solar power business is relatively low risk.

Introducing the FIT system in a low-risk business like solar power has triggered an influx of new electricity producers and increased the social cost. Thus, at least for the solar power businesses, it may be worth considering introducing the market mechanism and competition and encouraging businesses to improve efficiency, as proposed by the European Commission. Business operators are willing to take risks so long as they can anticipate a profit. Solar power has already established a stable industrial base, and therefore no longer needs to depend on the FIT system to encourage investment. While policies are designed to promote particular energies by artificially lowering risks, reducing the risk for too long constitutes overprotection.

In Japan, licensed capacity for solar power projects has soared to 20 GW in just one year. Therefore, Japan too should consider a new policy framework for promoting solar power.

3. China Watching: Status of Construction of Radioactive Waste Repositories

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In June 2003, nine years after the commercial launch of its first nuclear power plant, China established the "Preventive Law of Radioactive Pollution", establishing the policy to bury low- and medium-level radioactive wastes near the ground surface and high-level wastes deeper underground (500 to 1,000 meters). In December 2011, the State Council announced the "Regulations on the Safety Management of Radioactive Wastes", which translates the "Preventive Law" into workable rules, and set a reference safe isolation period for radioactive wastes of at least 300 years for low- and medium-level waste repositories and at least 10,000 years for high-level waste repositories.

The construction of low- and medium-level waste repositories is well under way. Currently, there are two facilities in operation, namely the Xibei Repository (Yumen mining site, Gansu Province) and Beilong Repository (Daya Bay Nuclear Power Plant, Dapeng Zhen, Shenzhen, Guangdong Province), and one facility under construction. In the "Nuclear Power Safety Plan (2011-2020)" released in October 2012, China set a goal of completing repositories in line with the development of its nuclear industry by 2015.

Regarding a high-level waste repository, which is a challenging issue even by international standards, investigations and research on the engineering, geological, chemical and safety aspects have been carried out by a team of laboratories and universities organized by the then Ministry of Nuclear Industry since 1985 when the country first began to build nuclear power plants. Based on the results, in February 2006, three ministries including the then Commission for Science, Technology, and Industry for National Defense (COSTIND) formulated a "Guideline for the Research and Development Plan for the Ground Disposal of High-Level Radioactive Wastes". The Guideline sets out a plan to conduct laboratory R&D and design an underground laboratory, and select a site, complete the conceptual design of the repository and evaluate its safety by 2020, construct an underground laboratory, conduct various tests, evaluate the feasibility of the prototype repository and complete the construction application and safety evaluation of the repository by 2040, ultimately completing the repository by 2050.

Subsequently, the five candidate areas for the repository were narrowed down to one, and according to the journals "Rock and Soil Mechanics" and "Uranium Geology", the review of the three sites within the candidate area has advanced significantly. With enough information gathered for final selection, the "Safety Plan" accelerated the high-level waste repository program by setting a new target of completing the overall repository design and underground laboratory construction by 2020. The "Management Regulations" stipulate that the site selection plan shall be ratified by the State Council before being implemented, and that the regional government of the hosting location shall be responsible for providing a building site and effectively assisting waste disposal.

The "Preventive Law" stipulates that the cost for plant decommissioning and waste disposal can be charged beforehand and added to the overall investment or electricity generation cost. So far, however, the Ministry of Finance is charging only a spent fuel disposal fee of 26 yuan (1 yuan = 16.7 yen) per MWh of electricity sale of commercial PWRs that have been operating for at least five years. The method of raising other funds will be decided in the future.

4. Russia Watching: Developing the Far East amid the Slow Economy – Prospects for Attracting Major Foreign Investment

Shoichi Itoh, Manager, Senior Analyst
Global Energy Group 2, Strategy Research Unit

On November 6, Economic Development Minister Alexey Ulyukaev presented his view that the growth of the Russian economy toward 2030 will remain at 2-2.5% per year while the global economy will grow by 3.4-3.5% per year. The Higher School of Economics in Moscow, one of the leading economic institutes in Russia, estimates the country's economic growth rate at 1.6% for 2013 (against the government target of 1.8%) and at 2.1% for 2014. In early November, Prime Minister Medvedev frankly admitted in an interview with Reuters that "there is no magic formula to boost growth; if there is, we don't know what it is".

Russia's 7% annual growth in the 2000s until the collapse of Lehman Brothers was backed by soaring international oil prices (the annual average price of Brent oil rose from 18 dollars/barrel in 2000 to 97 dollars/barrel in 2008). Presently, the price of Brent oil is still high at 100-110 dollars/barrel. Thus, high oil prices have ceased to be a general cure for the Russian economy, and the development of the Russian Far East, currently progressing under the strong leadership of President Putin, must face this situation.

On October 24, Prime Minister Medvedev visited Komsomolsk-on-Amur in Khabarovsk to chair the first meeting of the "Government Commission on the Socioeconomic Development of the Russian Far East" (established in September 2013), which was attended by Deputy Prime Minister Yuri Trutnev (also Presidential Envoy to the Far Eastern Federal District), Deputy Prime Minister Alexander Galushka (also Minister for Russian Far East), and the heads of government of the Russian Far East. The Prime Minister declared that all the Far East development policies implemented thus far have been disappointing, and urged the ministry leaders and corporate executives to regularly visit the Far East and see the situation for themselves.

The meeting emphasized that since the Russian Far East has a small population (6.3 million) and is far from the domestic markets in the European part of the country, the only way it can develop is to boost exports to Asia Pacific markets, for which it is essential to attract major foreign investment and to develop the socioeconomic infrastructure of the area. Deputy Prime Minister Trutnev pointed out that Russia's plan to establish a special economic zone for attracting foreign investment is significantly delayed compared to similar plans in countries such as China, and emphasized the urgent need to set up a world-leading tax incentive system, eliminate administrative barriers, and centralize the Far East development functions, currently held by the Regional Development Ministry and the Economic Development Ministry, under the Far East Development Ministry.

Since Prime Minister Abe visited the country this April, there have been growing calls for strengthening the economic relationship between Japan and Russia. One of the problems is the traditional distrust of Russia toward foreign funds. However, Russia is desperately in need of foreign investment to grow, and so Japan should actively make constructive proposals in order to ensure the long-term stability of Japan-Russia relations.

5. EU Watching: Germany Struggles with Rising Renewable Energy Premium

Wataru Fujisaki, Senior Researcher
Global Energy Group 1
Strategy Research Unit

In Japan, the "Feed-in Tariff (FIT) Scheme for Renewable Energy" was launched in 2013 based on the "Act on Special Measures concerning the Procurement of Renewable Energy by Operators of Electric Utilities". In Germany, the FIT system was launched in 2000, much earlier than in Japan, based on the Erneuerbare Energien Gesetz (EEG), or law on renewable energies. In step with the growth of renewable energies, Germany revised the purchase price of its FIT system in 2004, 2009 and 2012; recently, the sharp rise in consumer burden has become a problem.

Until 2009 at the beginning of the FIT system, the premium was relatively low at around 400 yen per month per household, and the annual rise was kept moderate. At the time, the German people were generally willing to shoulder some burden to enable renewable energies to expand.

Subsequently, however, the premium rose sharply, doubling to 800 yen between 2009 and 2010, and further increasing by 1.5 times to 1,300 yen in 2011. This price surge was thought to be due to a drastic drop in solar panel prices which caused a boom in solar power, as well as the "last-minute rush" to introduce solar power before the prices were cut from 2012. Through a drastic price cut of 15% from the previous year, the premium for 2012 remained unchanged from 2011 at 1,300 yen, but this is still a heavy burden considering that the monthly electricity bill of an average German household is around 11,000 yen.

Although the premium was not raised in 2012 due to the purchase price cut, it is expected to increase again from 2013 as solar power expands, reaching 2,000 yen in 2013 and 2,500 yen in 2014. Such a heavy burden is surely unacceptable even for the environmentally-aware German people.

Further, as electricity tariffs are rising also for industry, the German industry association BDI is demanding the government to review the FIT system to keep German firms competitive. The top party, the CDU, which won the recent election under Prime Minister Merkel, and the second party, the SPD, are considering revising the FIT system in their coalition discussions.

For renewable energies to expand, Japanese consumers too must bear some of the cost. With the current FIT system, the premium is expected to cost around 150 yen per month for an average household. However, a large increase as in Germany could also occur in Japan. It will be necessary to keep the expansion of renewable energies properly balanced with the burden on consumers, and to revise the system flexibly.

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