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Summary

1. Great East Japan Earthquake and the Domestic and Overseas Energy Trends: Trend of the Optimum Energy Mix

“All policies and resources required to abolish nuclear power plant operation by the 2030s will be mobilized.” The Innovative Strategy for Energy and the Environment has now been drawn up by the Energy and Environment Council. The zero nuclear policy, however, remains uncertain as the Cabinet decided not to adopt the Strategy and to treat it as a reference document instead.

2. Key Points of the LNG Producer-Consumer Conference

The key points of the LNG Producer-Consumer Conference held on September 19 are that the participants agreed on the importance of LNG, that the issue of the Asia premium and its effect on LNG prices has been highlighted, and that new supply sources are likely to increase significantly. The Conference played an important role in strengthening mutually beneficial relationships in LNG trade.

3. Background and Issues of the EC-Australia Emissions Trading Systems Tie-up

EC and the Australian government agreed to strengthen ties between them in emissions trading. This agreement is expected to stimulate the carbon market and the future international market, but outstanding issues include the differences in design of the two systems and their political and policy standpoints.

4. Introduction of Renewable Energies on Islands

There is growing interest in the use of renewable energies on islands, because renewable energies can be relatively cost-competitive on islands where the cost of power generation is driven up by the high cost of fuel transportation. The know-how gathered in these islands can also help the introduction of renewables in non-electrified villages, and can also be applied to common wide-area systems.

5. Report on the Oxford Energy Seminar

About seventy participants from the world’s leading oil and gas companies, engineering firms and financial institutions from more than 20 countries attended the 34th Oxford Energy Seminar and discussed a variety of issues such as the outlook for energy supply and demand, oil and gas price problems, the challenges for future oil and gas production, etc.

6. China Watching: Start of Emissions Trading System Experiment

The Chinese government launched experiments in seven regions including Beijing and Guangdong Province for introducing an emissions trading system to help meet its emissions reduction target for 2020. The goal is to launch full-scale emissions trading in these regions in 2013, and to set up an integrated, nationwide emissions trading market around 2020.

7. ME Watching: Chaos Worsened by Anti-US Rallies and the Situation in Syria

The Middle East is facing yet more chaos with the spread of anti-US rallies sparked by an anti-Islam film and subsequent attacks on US diplomatic facilities. The murder of the US ambassador to Libya is now regarded as an act of terror, with no connection to the film. With the battle intensifying in Aleppo, Syria and affecting Iraq, and with tighter sanctions starting to bite in Iran, the situation in the Middle East remains tense.

8. Russia Watching: Summary of APEC in Vladivostok — Achievements and Issues

The first-ever APEC Summit in Far East Russia was held on September 8 in Vladivostok, hosted by President Putin. Major achievements include the Leaders’ Declaration, the release of Annex B: Strengthening of APEC Energy Security, and the signing by Russia and Japan of a memorandum on the construction of LNG facilities in Vladivostok. The focus is now on specific measures to develop Eastern Siberia and Far East Russia.

1. Great East Japan Earthquake and the Domestic and Overseas Energy Trends: Trend of the Optimum Energy Mix

Shigeru Suehiro, Manager, Senior Economist
Energy Demand Supply and Forecast Analysis Group

“All policies and resources required to abolish nuclear power plant operation by the 2030s will be mobilized.” On September 14, the Energy and Environment Council released its Innovative Strategy for Energy and the Environment.

The Strategy has three pillars, which are “to rapidly achieve a society that does not rely on nuclear power”, “to bring about a green energy revolution” and “to ensure a stable energy supply”. The Strategy states that to achieve these three pillars bold reforms of the electricity system are essential. On the other hand, measures against global warming are given less importance. Regarding denuclearization, three policies will be applied: (1) the strict limitation of plant life to 40 years, (2) requiring safety checks by regulators before restarting a plant, and (3) no new construction or expansion of nuclear plants. However, the Strategy also contains five policies including continuation of the nuclear fuel cycle policy, collaboration with the international community and strengthening of assistance to plant-hosting municipalities.

During the 32nd Basic Energy Policy Subcommittee meeting held on September 18, the Strategy attracted much criticism for its inconsistency. Comments included: “The shutdown of all plants by the 2030s will be impossible if nuclear plants are allowed to restart and operate until the end of their 40-year plant life.” “Is the METI Minister’s verbal permission to continue the ongoing construction of three nuclear plants compliant with this policy?” “Continuing to run the nuclear energy business for the sake of the communities that host them is perverse logic.” “The details of the policy are too ambiguous.” Mr. Akio Mimura, chairman of the Subcommittee, took the unusual step of stating his own views: “Nuclear energy should not be abandoned. Abandoning what we have now while the future remains uncertain will greatly threaten our energy security and energy diplomacy. The irreversible consequences of pursuing the zero nuclear policy should be explained thoroughly to the public.”

In response to a comment from a committee member, METI Minister Edano said: “I am aware of the extreme difficulty of achieving zero nuclear power by the 2030s. The Strategy is ambiguous because we know it may not be possible to achieve this goal. We are trying to be honest by keeping it ambiguous.”

IEEJ Chairman & CEO Masakazu Toyoda commented: “The zero nuclear policy could cause the hollowing-out and collapse of the Japanese economy. Economic strength is the cornerstone of Japan’s strength. Without economic might, Japan will fade from global leadership. While there are claims that industry is fighting consumers, consumers are also workers. Any difference in position between industry and consumers indicates insufficient national debate.

This Strategy was expected to set a direction for discussions on energy policy reform. However, as the Cabinet decided not to approve the Strategy but to use it merely as a reference, the zero nuclear policy remains unclear. While the plan is to draw up the Basic Energy Plan based on the Strategy, the schedule is still blank.

2. Key Points of the LNG Producer-Consumer Conference

Tetsuo Morikawa, Manager
Gas Group, Oil and Gas Unit

The LNG Producer-Consumer Conference was held on September 19 in Tokyo, gathering more than 600 participants. The conference attracted the attention of both domestic and overseas media as a unique event attended not only by the buyers and sellers of LNG but also by ministerial-level representatives of both exporting and importing countries. The conference consisted of six key-note speeches and four sessions. The key points of the discussions are summarized below.

First, the participants agreed that LNG will play an increasingly important role in the energy mix worldwide. This is attributed to its price-competitiveness, environmental superiority, progress in the development and utilization of technologies, and the abundance of natural gas reserves. There are particularly high expectations for abundant reserves now that non-conventional natural gases have joined the scene.

Second, importing countries including Japan have started to tackle the price and pricing of LNG. The negative impact of rising LNG prices and higher LNG prices than in Europe and the U.S. (the so-called “Asia premium”), as well as the rationality of oil-indexed pricing of LNG, have been raised by METI Minister Yukio Edano, Hiroshi Okuda, Governor of the Japan Bank for International Cooperation, Akihisa Mizuno, President of Chubu Electric Power Company, Tsuyoshi Okamoto, President of Tokyo Gas, and Ken Koyama, Managing Director of the IEEJ.

Third, new supply sources are likely to increase significantly. Asia has traditionally relied on Southeast Asia, Australia and the Middle East to fulfill its LNG demands. As demand drops in Europe and the U.S. and increases in Asia, new exporters such as North America and African countries are all trying to export LNG to Asia. Supplies from North America are particularly important as it means a new pricing system will be introduced into the Asian market to replace the current oil-indexed system. These new suppliers could not only expand the LNG market but also improve its liquidity.

As repeatedly mentioned in this conference, the importance of mutually beneficial relationships in LNG trade has never been greater. The conference is extremely important as it has established a stage for genuine dialog on developing the LNG market, and should be continued to enable further dialog between producers and consumers in the LNG market for the benefit of both parties.

3. Background and Issues of the EC-Australia Emissions Trading Systems Tie-up

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

On August 29, the European Commission (EC) and the Australian government agreed to strengthen the ties between the European Union Emissions Trading System (EUETS) and the Australian system which was launched in July 2012. This agreement has attracted much attention for its potential to stimulate the carbon market and expand the international carbon market in the future, especially as the carbon market prices remain at low levels due to the slow economy since Lehman's collapse and uncertainty about the future of the UNFCCC framework. However, there are differences in design between the two systems including the process of setting goals, eligibility for Kyoto credits, the amount of credits available to each regulated party, and measures for market price adjustment. Due to these differences, and considering the political and policy backgrounds of the respective parties, there are doubts as to whether this partnership will function smoothly during the upcoming discussions on detailed system design, and function effectively as a system.

For example, this tie-up would allow a party regulated by the Australian emissions trading system to obtain the emission allowances (EUA) of EUETS. While the Australian system will become fully operational in 2015 and allow the purchase of overseas emission allowances and credits, the agreement contains a provision which temporarily allows a regulated Australian company to purchase EUAs and use them to meet the target for 2015. Since a complete tie-up with EUETS will not be established until 2018, this provision could create a short- to mid-term demand for EUETS and thus cause carbon prices to rise from their low level; this is a key concern for the parties concerned. The agreement is beneficial to both parties as it gives Australian companies an opportunity to achieve targets more efficiently in the run-up to launching the full-scale system.

Meanwhile, the price adjustment mechanism of the Australian system will be reviewed in time for its tie-up with the EUETS. While the Australian system is currently designed to keep the market prices within a certain range by setting floor (lowest) and ceiling (highest) prices, the agreement will revise the system such that (1) the floor price will be abolished and (2) the ceiling price will refer to the future EUETS price instead of the international market price as at present. Consequently, market prices in future are likely to depend not on domestic conditions in Australia but on economic trends in the EU which produces far larger emissions. Also, the market prices in a trading system involve institutional risks such as the setting and modification of target levels and rules on using credits. There are also differences between the positions of the EU, whose current agenda is to modify the system to raise the carbon market price to a certain level, and Australia, where there is a battle for power between the ruling and opposition parties and uncertainty as to whether the country will participate in the second commitment period of the Kyoto Protocol. It is worth monitoring whether these two parties can manage to build a mutually beneficial system, and whether the system can be linked with the markets of other countries.

4. Introduction of Renewable Energies on Islands

Hisashi Hoshi, Board Member, Director

New and Renewable Energy & International Cooperation Unit

On September 6 and 7, I had the opportunity to attend the Renewables and Islands Global Summit held in the Republic of Malta. The International Renewable Energy Agency (IRENA) has been organizing international conferences on the introduction of renewable energies on islands in various parts of the world; including the workshop "Accelerating renewable energy deployment in the Pacific Islands countries - meeting the challenges" jointly hosted by the Japanese government during the Sixth Pacific Islands Leaders Meeting (PALM6) in May this year. The Summit in Malta was also a high-level meeting, with the participation of energy and environment ministers from the Caribbean and the Pacific island states.

The introduction of renewables in remote areas, including islands, is attracting growing interest from the IEA, too. In April this year, the Renewable Energy Technology Deployment (RETD) group of the IEA published a report titled "Renewable Energies for Remote Areas and Islands", presenting a set of policy alternatives for introducing renewables in remote areas in line with the local characteristics.

There are two main reasons why IRENA and IEA are focusing on the introduction of renewables on islands. The first is that renewables can reduce power generation costs. Unlike the large-scale power systems of the mainland, fuel for generating electricity must be transported to islands in small quantities, sometimes even just metal barrels. This inevitably pushes up electricity costs, making the incentives for renewables much greater.

Another reason is that the know-how gained by using renewables on islands may help renewables be used in non-electrified villages too. Islands share much in common with inaccessible areas on land. Further, the experience gained by bringing electricity to islands can also be used to address instabilities in wide-area electricity systems caused by the rising ratio of renewables. Islands are an ideal laboratory for testing the introduction of renewables.

Japan also has a keen interest in the technologies for introducing renewables on islands. Currently, the Ministry of Economy, Trade and Industry is running a micro-grid demonstration project in ten islands of Kyushu and Okinawa. This pilot test is using batteries and existing diesel generators to stabilize the otherwise unstable output of solar and wind power, and the results will be of great value.

Renewables should start to attract attention in Japan as a way of reducing the electricity costs of islands, which are typically double those of mainland areas and are currently added to electricity rates like all other electricity costs as part of the overall cost-based tariff system. According to the Basic Policy on Electricity System Reform released last July, however, any rise in electricity costs attributed to the electrification of islands will be added as a surcharge to electricity consumers nationwide. This will raise questions about the conventional approach of transporting fossil fuels to islands for power generation, and pave the way for the introduction of renewables.

Japan has more than 250 inhabited islands, and so should pioneer unique approaches to the introduction of renewables, tailored to the diverse natural environments of the country.

5. Report on the Oxford Energy Seminar

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

The 34th Oxford Energy Seminar was held at Oxford University in the United Kingdom from September 10 to 20, attended by about 70 participants including management-level representatives from the world's leading oil and gas companies, engineering firms and financial institutions from more than 20 countries. A group of eminent guests including the top management of global energy companies and energy experts of global fame were invited as speakers to join the discussions on diverse topics addressing the outlook for energy supply and demand, nuclear energy, oil and gas prices, world economic trends, climate change, the present situation and the future of major oil and gas producing countries, and so on.

Firstly, the potential of shale gas and shale oil in the U.S., which is now the focus of global attention, was discussed repeatedly. Most of those who are already doing business in the field of shale gas are also optimistic about the growth of shale oil production. On the other hand, representatives of national oil corporations (NOCs) pointed out that there are many long-term uncertainties in today's shale gas revolution with regard to future technological development, environmental issues, and marginal cost. Most participants agreed that the shale gas revolution is unlikely to spread outside the U.S. in the immediate future against the backdrop of differences in geological structures and the availability of pipelines, etc.

Secondly, it became clear that various experts are keenly watching how the role and involvement of the U.S. in global politics will change if the production of nonconventional resources in the country expands as anticipated. None of the participants, however, considered that the U.S.'s involvement in global politics, including the Middle Eastern geopolitical issues, would weaken even if the U.S. achieves complete energy independence, which has been its long-cherished goal since the oil shocks of the 1970s. The moves of the U.S., however, are becoming one of larger unknowns affecting the stability of the future international energy markets.

Thirdly, the participants had different views on the scale and pace of growth in the global demand for oil, as well as on the response to the demand. Some, including the representatives of NOCs, stated that they will have to curb their advance investments in production facilities to prepare for any unanticipated development in energy conservation technologies and growth in non-fossil fuel usage, while others pointed out that a lack of investment could lead to supply shortages in the future. Regarding the future oil export capacity of the Middle East, some pointed out that it may start to decrease earlier than expected due to the growth in demand in the area. Views varied on this issue, too.

Throughout this seminar, I was constantly asked by energy officials from around the world about the direction of Japan's nuclear policy. I was once again reminded that Japan has a responsibility to the international community to make sure that its new energy policy is a reasonable one, based on a thorough understanding of the ever-changing global situation.

6. China Watching: Start of Emissions Trading System Experiment

Li Zhidong, Visiting Researcher
Professor at Nagaoka University of Technology

While the European Union Emissions Trading System (EUETS) continues to struggle, China launched an experiment for the introduction of its own emission trading system. In January 2010, the Chinese government submitted an action target to the United Nations to reduce its per-unit GDP CO₂ emissions by 40 to 45% from 2005 levels by 2020. To ensure its accomplishment, the government set a binding target in its 12th five-year plan to reduce the per-unit GDP CO₂ emissions by 17% from 2010 levels by 2015, and at the same time, announced plans to build an emissions trading market. In line with this announcement, in October last year, the National Development and Reform Commission gave permission to hold experiments for the introduction of the system in seven regions including Beijing and Guangdong Province. Entering this year, Beijing, Shanghai and Guangdong Province announced the start of the experimental project on March 28, August 16 and September 11, respectively.

According to official documents such as the “Guangdong Province Carbon Emissions Trading Experiment Project Execution Plan”, the intraregional trading system of each area is generally designed as follows. First, the regional government determines the total emission volume of the region based on the economic growth and industrial structure, in line with the emission intensity target assigned by the national government. Then, the regional government designates those businesses with high emission volumes as regulated parties, and allocates emission allowances to them. The regulated parties then trade emission allowances among themselves, and the regulatory authority verifies and monitors that the regulated parties are meeting their emission allowances. Any excess emissions allowance can be carried forward to subsequent years, but any shortage in allowance must be purchased within the current year. It is also possible to trade any emissions reduction credits authorized by the national or regional government in the market, although the main objects of trade are the emission allowances allocated in the region.

For Guangdong Province, the businesses in the energy-intensive industries such as electricity generation and cement, and whose emission volume equals or exceeds 20,000 tonnes (or 10,000 coal-equivalent tonnes in energy consumption) in any one year between 2011 and 2014 are designated as regulated parties. Based on the results of 2010, for example, 827 businesses would be designated as regulated parties, whose collective energy consumption accounts for 63% of the region’s entire industrial sector and 42% of the region’s total. The emission allowances for 2013–2015 will be determined considering the results for 2010–2012 and the characteristics of the industry sector, and will be allocated at one time mostly without charge. Further, to new businesses whose annual energy consumption is expected to equal or exceed 10,000 coal-equivalent tons through a preliminary review, emission allowances will be allocated without charge or with partial charge. The media reported that four cement companies which plan to expand their production capacities purchased 1.3 million tonnes of emission allowances in total on the first day of the experiment at 60 Yuan per tonne. While the system still has uncertainties, it is the first-ever emissions trading system based on total volume control in China aimed at achieving emission factor reduction targets.

The regions are planning to fully launch regional trading within 2013, and to improve the system by 2015. Meanwhile, since June, the National Development and Reform Commission has begun to build a system to measure, report and verify (domestic MRV) the emission volumes of six energy-intensive industries nationwide, including the thermal power and steel industries. The Commission plans to run intraregional experiments and to prepare the regulatory system of each sector simultaneously, aiming to establish the domestic trading market by around 2020. While taking these actions with an eye on the negotiations to prevent global warming, the Commission is approaching a critical stage on whether it can build an emissions trading market that can achieve the regulatory targets in the most efficient way, through trial and error and by learning from the experience and lessons of the EUETS.

7. ME Watching: Chaos Worsened by Anti-US Rallies and the Situation in Syria

Koichiro Tanaka, Managing Director &
Head of JIME Center

The anti-U.S. rallies that started out as a protest against a film defaming the Islamic Prophet escalated into violent attacks on U.S. diplomatic facilities in Egypt, Yemen and other states. The protests have spread to Sudan, Pakistan and Tunisia, and the governments' inability to control these outbursts sparked by the anti-Islamic provocation show the magnitude of each society's dissatisfaction mounting in these countries.

It is also becoming clear that the U.S. ambassador to Libya who was murdered in the U.S. consulate in Benghazi was targeted by militant groups including Ansar al-Sharia, which is allegedly tied to the "Al-Qaeda in the Islamic Maghreb". Tensions are rising between these terrorists, who have expanded their influence amid the confusion following the Arab Spring and the fall of authoritarian regimes, and the Libyan citizens who have launched anti-terrorist sweeps in angry reaction to these acts of violence.

In Syria, the death toll keeps rising as armed conflicts continue in Aleppo as well as the capital city Damascus. There is little prospect of a peaceful resolution, as both President Assad and the rebels have vowed to defeat the other by force in separate talks with Amb. Lakhdar Brahimi, Joint UN-Arab League Envoy. Neither is the situation likely to be turned around by the foreign ministerial talks between Iran, Turkey, Saudi Arabia and Egypt held on September 17 to deal with Syria. There is little hope that all four countries will take concerted action, as Iran supports the Assad administration while the three other countries take completely the opposite stance; Saudi Arabia did not even attend the meeting.

The Syrian problem is now starting to involve its neighboring country, Iraq, by encouraging extremists and the inflow of weapons from Syria into the country. Pressure against Iraq is rising as criticism against Iraqi Prime Minister al-Maliki mounts in the U.S. Congress for allegedly allowing Iran to airlift weapons into Syria, and Senate Foreign Relations Committee Chairman John Kerry has warned that conditions could be imposed on U.S. financial assistance to Iraq.

The tougher sanctions imposed on Iran by Europe and the U.S. is starting to bite as the value of Rial plunged into its lowest rate against the U.S. dollar. While the U.S. government decided to grant the EU and Japan another 180-day extension of the exemption from the economic sanctions on Iran based on the National Defense Authorization Act, Iranian oil exports are expected to remain at one million B/D level. Iran is searching for ways to restart the nuclear talks with the P5+1 despite the decision of the IAEA board on September 13 to demand that Iran stop uranium enrichment. The chief negotiator of Iran joined a banquet with the EU's High Representative Catherine Ashton in Istanbul, but this did not progress to actual talks. Meanwhile, the U.S. State Department removed the Iranian dissident militia MKO (MEK) from its list of foreign terrorist groups in a dangerous move that overlaps with the U.S. support of Iraqi dissidents before the Iraq War.

8. Russia Watching: Summary of APEC in Vladivostok — Achievements and Issues

Toshihiro Sugiura, Chief Researcher
Global Energy Group 2, Strategic Research Unit

Vladivostok is the largest city in Far East Russia which, as the main naval base of the Soviet Pacific Fleet, was officially closed to foreigners during the Soviet years. The name consists of two words, “Vladi” (imperative form of the verb “to govern”) and “Vostok” (the East), together meaning “Govern the East”.

On September 8, President Putin hosted the first APEC Summit in Far East Russia in the city of Vladivostok. Aiming to expand its presence as a Pacific state, Russia approached the Summit preparations with national pride, spending the enormous sum of ca.1.7 trillion yen to upgrade the surrounding infrastructure. With energy issues expected to be the focus of the Summit, Russia accelerated the construction of an 1800-kilometer natural gas pipeline Sakhalin – Khabarovsk - Vladivostok (SKV), which was completed in September last year. Russia was also planning to start natural gas production in the Sakhalin-3 gas field in time for the commencement of the APEC meeting, to start fully supplying gas to the areas surrounding the pipeline and the city of Vladivostok.

The development of Eastern Siberia and Far East Russia is of critical importance for President Putin, which is why the Ministry for Development of the Russian Far East was newly founded in May in time for the APEC Summit. The Summit in Vladivostok was expected to jump-start the development of Eastern Siberia and Far East Russia.

At the Summit, APEC leaders issued the declaration “Integrate to Grow, Innovate to Prosper”, and four priority topics, such as trade and investment liberalization and regional economic integration, and strengthening food security, were discussed. With regard to energy, “ANNEX B - Strengthening APEC Energy Security” was released, confirming the importance of natural gas, the potential of non-conventional gas resources, strengthening the response to oil and gas emergencies, and ensuring the safety of nuclear power. With Russia and President Putin’s high enthusiasm for energy issues, especially concerning gas, the Agency for Natural Resources and Energy of Japan and Gazprom of Russia signed a memorandum on September 8 in the presence of President Putin to promote the Vladivostok LNG construction plan.

Now that the consensus documents have been issued and the memorandum on the LNG construction plan has been signed off, the challenge is how to implement them. The development of Eastern Siberia and Far East Russia will require massive investment; to attract such investment from inside and outside the country, it is necessary to upgrade both the tangible elements such as the infrastructure and the intangible elements such as the institutional aspects. Despite high hopes for the development of Eastern Russia, which faces North East Asia where demand for energy is expected to grow, the future remains uncertain. Even at this early stage, the Sakhalin-3 gas field has missed its initial target of starting to produce natural gas before the APEC Summit, and is not due to start until the second quarter of next year, far behind schedule. There are other issues too, such as the failure to secure enough natural gas to be carried by the completed SKV natural gas pipeline. While the success of the first APEC Summit in Far East Russia is a great achievement, we need to watch how the Putin Administration will use energy as the basis for turning the plan to develop Eastern Siberia and Russian Far East into action.

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