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Summary

1. European Council Adopts New Long-Term Energy and Climate Policy Package

On October 23, the European Council adopted its energy and climate policy package for 2030 which includes a GHG target. However, there are still some disagreements among the member countries, and the policy package that aims to simultaneously achieve multiple targets could still face many twists and turns.

2. Deadlocked FIT System and the Need for Fundamental Reform

Following the mass licensing of new capacities in March, five electric companies' applications for connection are pending approval. It is necessary to urgently determine the amount of electricity that can be connected, and at the same time, to drastically reform the system to take cost and the pace of introduction into consideration.

3. China Watching: Energy Revolution Pursued by the Xi Jinping Administration

The Xi Jinping administration is promoting a revolution in consumption, supply, technology and management systems, as well as in international cooperation. The idea is in line with the administration's focus on "the quality of growth", and its anticipated progress and developments.

4. US Watching: Domestic Discussions on Lifting of Oil Export Ban

Regarding the lifting of the ban on oil exports, both the proponents and opponents have issued the latest analyses, and the battle is intensifying. Its developments under the new post-midterm power balance must be closely monitored.

5. EU Watching: Result of Europe's Stress Test on Gas Supply Cut

The results of Europe's stress test against a potential gas supply cut showed that the negative impact of a gas cut can be mitigated significantly if EU member countries collaborate. The key is working together to ensure energy security even in normal, politically stable times.

1. European Council Adopts New Long-Term Energy and Climate Policy Package

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On October 23, the European Council adopted an energy and climate policy package which includes a GHG emissions target (down 40% from 1990 levels), a renewable energy capacity target (27% of final energy consumption), and an energy saving target (27% reduction in primary energy consumption compared to the Business-as-Usual (BAU) scenario). The package had been presented in draft form in January, and had undergone reviews in anticipation of approval in this European Council meeting, before being approved as scheduled in time for COP21 next year. However, the course of negotiations so far and the details of the package highlight the divide in opinions within the EU as well as the efforts that were required to achieve a compromise.

The strong points of debate were the renewable energy and energy saving targets. For the renewable energy target, the point of concern was whether or not the target should be legally binding for member countries, and how far the targets should be extended. Eventually, an agreement was reached to give legally binding power only to the EU targets, and to set the new renewables target to 27%, which is lower than the 30% that had been discussed in the meeting. Regarding the energy saving target, the very necessity of setting a target was initially being disputed. However, as the countries became aware of the need to enhance energy security due to the Ukraine-Russia crisis, a target level option of 30% at one point became a promising choice. In the end, the countries opted to go with a non-legally binding target of 27%.

This makes the EU all set for presenting to COP21 a GHG target of 40% which far exceeds the target for 2020. However, there are still various issues and disagreements that the member countries must overcome to be able to achieve the energy and climate targets simultaneously in 2020. The EU's basic stance to lead the international community in the battle against climate change has not faltered. However, the question remains of how the EU will keep its internal energy and climate policies compatible with energy security and competition issues. We must closely monitor the developments in the discussions on specific measures that could be taken to achieve this.

In Japan, the fifth and sixth meetings of the Energy Efficiency and Conservation Subcommittee of the Committee on Energy Efficiency and Renewable Energy (METI's Advisory Committee for Natural Resources and Energy) were held on October 1 and 21 respectively, to discuss the energy saving measures of residential and transportation sectors, response to demand for energy, and the cost-efficiency of energy saving measures.

IEEJ CEO and Chairman Masakazu Toyoda suggested the need for benchmarks in areas of business to reflect the reality, endeavoring to lead the world by building a business model addressing the response to energy demand, the need for verification through demonstration tests for launching negawatt power trading, and the need to identify the cost-efficiency of each element technology that contributes to energy saving and to support the introduction of those technologies with high efficiency.

2. Deadlocked FIT System and the Need for Fundamental Reform

Hisashi Hoshi, Board Member, Director
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The Feed-in-Tariff system of Japan is in a deadlock. End July Okinawa Electric Power Co. announced that it would withhold their answers to applications for connection of renewable power plants, which were followed by other utilities such as Hokkaido, Tohoku, Shikoku and Kyushu. It is due to the last-minute surge of solar capacity licensing applications throughout the month of March. In fact the licensed capacity of renewable electricity jumped above the demand level of the low-load period of the power companies, and even above the peak period of demand for Kyushu. The power companies have good reason to withhold their answers.

There have been two pitfalls. Firstly, whereas in Germany the purchase price is not decided until a plant starts to generate electricity, in Japan, the price is set effectively when the energy ministry grants a license to the plant. This allows electricity producers to secure a generous sales price just by preparing a plot of land, explaining the plant specifications, and filing the papers. It is only natural that applications rushed in before the purchase price was cut. Secondly, a license can be granted without the power company's approval for grid connection. Licenses have been granted without the situations of the license recipients being carefully checked.

"Pending answers" have caused panic among potential solar electricity producers. Their business plans could get far off track. Geothermal and wind electricity producers, who have had grid connection slots taken by the quicker solar electricity generators, fear that METI may stop receiving license applications altogether. The announcements by the power companies to suspend connection approval processes significantly damaged the investors' confidence in the FIT system.

What needs to be addressed first is solving the issue of pending connections. The working group on networks (New and Renewable Energy Subcommittee of Advisory Committee for Natural Resources and Energy) launched on October 16 has kicked off intensive discussions to determine the amount of electricity that can be connected, which will be decided by the end of the year.

Then, the existing problem-plagued FIT system must be revised urgently. A build-up of licensed capacities far exceeding expectations quickly raised concerns regarding the surging cost of surcharges and network stability. The current system that can allow an unlimited number of licenses cannot cope with such concerns.

The experience of Europe provides a good model to go by. Several European countries, namely Spain between 2007 and 2008, Italy in 2011 and Germany between 2010 and 2012, have struggled with soaring solar electricity trends, and have eventually turned to volume control and cost reduction. Through trial and error, Germany have set an upper limit of PV deployment up to 52GW, and set a cap on the combined share of renewable electricity (July 2014). Furthermore, by 2017, the country will introduce a bidding system in order to suppress costs. Spain had taken restrictive measures such as capping the annual additional capacity and the total amount of electricity purchase in number of hours, before it eventually abandoned the volume-based FIT system and switched to a universal 5.5% subsidy in return for plant investment, applied retrospectively (June 2014). The Japanese system should also have mechanisms that allow reducing costs, such as bidding, and controlling the pace of introduction.

As a prerequisite for revising the Japanese FIT system, it is essential to set a target for renewable energy introduction and to form a consensus on what the social burden would be. It is the clear capacity target of the EU, and the commitment of each member country based on this target, that is propping up the renewable electricity introduction system of each European country. The start of the discussions on the optimum mix of electricity sources for Japan is keenly awaited.

3. China Watching: Energy Revolution Pursued by the Xi Jinping Administration

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What characterizes the Xi Jinping-Li Keqiang leadership launched in 2013 is the switch in strategic focus from "economic scale and growth rate" to "quality and efficiency of growth". Based on this strategic transformation, on June 13 this year, President Xi held the sixth meeting of Central Leading Group for Economic and Financial Affairs, in which he announced promoting a four-part "energy revolution" and international cooperation, after deliberating on the report on energy security strategy from the National Energy Administration (NEA).

(1) Consumption revolution: Controlling overall energy consumption by implementing exhaustive energy saving measures in all phases of socio-economic development and all consumption areas, firmly holding the strategic priority of energy saving. (2) Supply revolution: Diversifying energy sources by developing energies other than coal, while strongly promoting the clean and efficient use of coal; At the same time, strengthening the development of transportation, electricity transmission and distribution infrastructure and storage facilities. (3) Technological revolution: Enhancing the development of green and decarbonization technologies, and reinventing the relevant industries into a new industry that can drive economic growth and elevate the level of the overall industry. (4) Management system revolution: Developing a competitive market by highlighting the commercial aspects of energy, focusing particularly on building the market-driven pricing mechanism and improving the legal system. (5) Stronger international cooperation: While domestic issues remain the highest priority, strengthening international cooperation in all possible areas related to energy production and consumption, to use international resources efficiently.

Based on this "energy revolution", specific targets and plans are being developed in the relevant projects. According to the discussions in the "Kick-off Meeting for the 13th Five-Year Plan on Energy Development" held on June 23 and the "Action Plan for Upgrade and Replace of Coal-Fired Thermal Power in Energy Saving and Pollutant Reduction (2014-2020)" released by the NEA and other ministries on September 12, the following plans and targets have been set for 2020:

- Energy structure: Reducing the ratio of coal in primary energy consumption to less than 62% from 65.7% in 2013, and increasing the non-fossil fuel ratio to 15% from 9.8%.
- Coal: Reducing the distributed use of coal in residential and industrial sectors, and using it centrally in the power generation sector, where the ratio of coal is increased to above 60% from 50%. At the same time, all new coal-fired thermal power plants must have a net thermal efficiency of at least 41% and fulfill an emission standard equivalent to that of gas thermal plants, while existing plants must improve the net thermal efficiency to at least 39.6% from 38.3%.
- Natural gas: Expanding the supply capacity to 400–420 billion m³ (consumption was at 167.6 billion m³ for 2013), including 30 billion m³ of shale gas and coal-bed methane, respectively.
- Wind power: Expanding the power generation capacity to at least 200 GW, and decreasing the electricity sales price to match that of coal-fired thermal (on average 0.41 yuan/kWh nationwide as of October 2014).
- Solar PV: Expanding the power generation capacity to at least 100 GW, and decreasing the sales price (currently 0.9–1.0 yuan/kWh) to match that of the electricity tariff (consumer purchase price of electricity from electricity transmission companies).
- Nuclear: increasing the power generation capacity to 58 GW, and the capacity under construction to 30 GW (as of end-September 2014, 20 reactors worth 18,13 GW are in operation, and 28 reactors worth 30.76 GW are under construction). Advanced reactor technologies will be introduced actively, with high priority placed on the development of gas-cooled fast reactors and fast breeder reactors.

China pledged to "declare war on air pollution" to its people at the National People's Congress in March, and to "strive to achieve the peak of total carbon dioxide emissions as early as possible" to the international community at the UN Climate Summit in September. Neither of these promises can be met without energy revolution. The pledges show the determination of the Xi administration to turn the country's strategy around, and the course of the revolution should be monitored carefully but with realistic expectations.

4. US Watching: Domestic Discussions on Lifting of Oil Export Ban

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The US is heading into the midterm elections to Congress as newspapers are filled with news on Ebola. Gas prices have dropped below the three dollar mark, but while lower gas prices usually work in favor of the ruling party, the Democrats are struggling, and expectations are growing that the GOP will win the Senate majority and expand their power in the House of Representatives.

The next session of Congress, starting in January 2015, is likely to discuss lifting the current ban on American oil exports. In June, the oil export licensing authority, the US Commerce Department's Bureau of Industry and Security (BIS), issued export licenses to Enterprise Products and Pioneer Natural Resources based on the judgment that "condensate should more appropriately be considered as a petroleum product rather than oil", and already, four cargos have been shipped out. Condensate export applications have been pending since July, however, as the BIS is taking a cautious stance.

Regarding the export of oil, the Brookings Institution published an analysis in September 2014 showing that giving a green light to oil exports would buoy the GDP growth rate by at least 0.4% per annum. In October, the Aspen Institute issued a report stating that the US is already enjoying a renaissance of its manufacturing industry thanks to active mine development, and that exporting oil would bring the industry further sustainable development. In the same month, the Government Accountability Office (GAO) also released findings that US oil exports are likely to lower petroleum product prices, and it was reported that the US Energy Information Administration (EIA) is due to publish an analysis concluding that "US gas prices are based on the international market, and are not likely to soar due to oil exports". On the other hand, an association of refiners opposing the lifting of the US oil export ban released a report in October that maintains "US oil export is unnecessary as the US refining and transportation facilities have overcome the differences between petroleum and shale oil, and now the entire quantity can be refined in the US". Heading into the start of the hearings in Congress, the debate between the parties for and against oil exports is intensifying.

As previously mentioned, the general expectation is that a GOP majority in both the upper and lower houses would work in favor of lifting the export ban, as the party generally endorses free trade and the development of domestic oil and gas. In the GOP-ruled Senate, Alaska senator Lisa Murkowski will chair the Senate Committee on Energy and Natural Resources, which is in charge of US oil exports, and Mitch McConnell will become the new Senate Majority Leader who controls the Senate proceedings. While Ms. Murkowski has always been an oil export advocate, her taking office is not seen as a big change as the incumbent Chair person, Mary Landrieu (D-Louisiana), is also pro-export. Mr. McConnell has not publicized his stance on oil exports, and neither has House Speaker John Boehner, who plays an important role in House proceedings. House Majority Leader Kevin McCarthy, and Chairman of House Committee on Energy and Commerce Fred Upton are also yet to publicize their respective stances. This shows how carefully this issue must be handled, considering the conflict of interest between oil producers and refiners, and the impact on domestic oil producers and consumers.

US politics has already entered the early stage of the 2016 Presidential Election, and some promising GOP candidates already advocate allowing oil exports. While other lawmakers carefully discuss the issue, we hope that President Obama, for whom reelection is no longer a concern, will approach the issue just as cautiously.

5. EU Watching: Result of Europe's Stress Test on Gas Supply Cut

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On October 16, the European Commission released the results of its "stress test" for its 28 member nations and surrounding countries against a potential shutdown of Russian gas supplies. The stress test assessed the impact of a gas supply cut on each country, and discussed how the adverse effects of such a cut could be minimized. The EU depends on other countries for 66% of its natural gas supplies, of which 48% is used for heating. Considering the severe winter climate of northern Europe, disruption of heating due to a gas supply cut is an extremely serious, life-threatening issue. The stress test postulated two winter scenarios: a complete shutdown of Russian gas supplies, and a shutdown of gas supplies that pass through Ukraine. Two supply cut periods of one month and six months were postulated.

The six-month supply cut scenario inflicted severe damage on the EU countries, particularly on northern countries close to Russia (Finland and Estonia) and the former Yugoslavia countries (Macedonia, Bosnia Herzegovina, and Serbia) which could face a shortage of more than 60%. For some countries, the supply cut could disrupt gas supplies to houses, leaving them without heating in winter climate. These would be the results if the countries acted separately. However, if they tackle the issue collectively, the decrease in gas supplies would become a significantly smaller problem, and the report indicated that at least the residential demand of each country would be met. The key point of the report is that the impact of a gas supply cut can be eased, and a repeat of the confusion of 2009 can be avoided if the EU and surrounding countries tackle the issue together. As the means of this multilateral collaboration, the report suggests that non-market measures such as releasing strategic supply stockpiles, forced fuel conversion, and supply regulation, should be a last resort. It maintains that market functions should be used for as long as possible. This is based on the idea that maximizing the use of the market mechanism contributes to energy security; if gas supplies from Russia decrease, causing gas prices to rise, demand will drop due to high gas prices, and supply-demand balance will change due to additional procurement of LNG.

The key to the multilateral collaboration is the underground gas storage tanks, most of which are more than 90% full as of October (62 days' supply for the 28 EU countries at average gas consumption rate). Further, as talks between Ukraine and Russia appear to have made some progress, Europe will most likely be able to avoid a gas supply cut emergency, unless it is hit with a climate crisis such as a big freeze. The stress test indicates that preparations during non-emergency times is the key for ensuring energy security, and suggests the need to build connection pipelines, secure alternative means of transportation such as LNG, utilize domestic energies, and build a well-balanced energy mix. Even more dependent on foreign countries than Europe for energy, Japan should steadily implement similar measures for ensuring energy security.

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