# **IEEJ e-NEWSLETTER**

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The Institute of Energy Economics, Japan

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## Contents

## **Summary**

[Energy Market and Policy Trends]

- 1. Discussions on the Review of the Energy Policies
- 2. Developments in Nuclear Power
- 3. European Commission declared their draft new Energy/Environment Policy Target

[Global Watch]

- 4. Activities Related to Global Warming in 2014
- 5. US Watching: Energy Policy Issues since the Beginning of the Year

## Summary

[Energy Market and Policy Trends]

#### 1. Discussions on the Review of the Energy Policies

In December 2013, the "Draft Opinions on the Basic Energy Plan" document was finalized. However, approval of the Plan by the Cabinet has been delayed, due partly to the Tokyo gubernatorial election.

#### 2. Developments in Nuclear Power

In addition to the 16 nuclear power stations, the reviews for compliance with the new regulatory requirements have also begun in nuclear fuel cycle facilities including reprocessing plants. The Nuclear Regulation Authority needs to clarify the requirements for the reviews and conduct them efficiently.

#### 3. European Commission declared their draft new Energy/Environment Policy Target

On January 22, the European Commission announced a draft framework for its new policies on climate change and energy, including reducing GHG emissions by 40% by 2030. However, the upcoming discussions for formulating specific measures and strengthening the policies remain uncertain.

[Global Watch]

#### 4. ME Watching: The Situation Remains Precarious in Syria, Iraq and Iran

The international peace talks on Syria merely confirmed the will to continue the negotiations. The situation in Syria is destabilizing Iraq, whereas optimism dominates in Iran where the provisional accord was reached. Egypt is moving toward the presidential election.

#### 5. US Watching: Energy Policy Issues since the Beginning of the Year

With the midterm elections later this year, the US has faced various energy issues since the beginning of the year, including soaring energy prices amid the big freeze. President Obama's emphasis on presidential authority is attracting scrutiny.

## 1. Discussions on the Review of the Energy Policies

Akira Yanagisawa, Senior Economist Energy Demand, Supply and Forecast Analysis Group Energy Data and Modelling Center

In December 2013, the "Draft Opinions on the Basic Energy Plan" document was finalized. The document was opened for public comment until January 6 to gather a broad range of opinions, which will be incorporated into the document. After final adjustment and reporting to the METI Minister, the new Basic Energy Plan will be approved by the Cabinet. However, Cabinet approval of the Plan has been significantly delayed.

The document contains no quantitative projection or targets, and is called a "policy outline" by Chairman Akio Mimura. Its basic principle is to clarify the merits and demerits of each energy source, and then to strike an appropriate balance among them. However, the document does mention that "numerical targets" and "quantitative projection" for a feasible energy mix will be presented soon while monitoring the progress of restarting the nuclear power plants and the expansion of renewable energies.

Regarding nuclear in which there is intense public interest and which was the focus of the current review of the Basic Energy Plan, the "Opinions" document states that "dependency on nuclear will be minimized by conserving energy, introducing renewables, and improving the efficiency of thermal power stations. Based on this policy, and considering the energy limitations of Japan, nuclear will be secured in the necessary quantities determined according to supply stability, cost reduction, global warming countermeasures, and the technology and personnel needed for ensuring safety."

The phrases "...will be minimized" and "...will be secured in the necessary quantities" in the same paragraph suggest that the Committee struggled to find the right position for nuclear in the Opinions. But the statement that all energy sources will be used effectively, hence not eliminating nuclear, may anger those who want nuclear to be abandoned. According to media reports, opinions are divided regarding this document within the government parties including the LDP and the New Komeito. Further, former Prime Minister Morihiro Hosokawa had announced that he will run in the Tokyo gubernatorial election on February 9 (but was defeated), claiming that nuclear, including restarting the nuclear power plants, is the most important issue in the election; perhaps the Cabinet delayed approval of the Basic Energy Plan to prevent nuclear becoming an issue.

Should the national energy policy be the most important issue in a governor's race, rather than in a national election? While the debate itself should not be discouraged, it should be constructive and based on objective scientific grounds and the "3E+S+M" policy, not on vague theories. Following the election, the Cabinet is expected to promptly approve the Basic Energy Plan so that quantitative discussions on the energy mix can resume.

## 2. Developments in Nuclear Power

**Tomoko Murakami**, Manager Nuclear Energy Group, Strategy Research Unit

On January 7, based on the new regulatory requirements for nuclear fuel facilities which went into effect in December last year, the Japan Nuclear Fuel Limited (JNFL) applied for a review for compliance of four of its facilities: the Rokkasho Reprocessing Plant, the uranium enrichment plant, the MOX fuel fabrication plant, and the nuclear waste monitoring facility. As of the end of January, the NRA has held two review meetings and one to three company hearings for each facility. On January 15, the Recyclable-Fuel Storage Company applied for a compliance review of its Mutsu Recyclable Fuel Storage Center. In total, five facilities of two companies have now applied for the review.

For reprocessing plants and MOX fuel fabrication plants, reviews by external experts will be held as necessary, in addition to review meetings with NRA members and the companies. As with the reviews for nuclear power stations, the NRA needs to clarify the required items, and conduct the reviews efficiently also for nuclear fuel cycle facilities.

Although the compliance reviews of the 17 nuclear power stations of eight utilities have been proceeding steadily since last year, the end is not yet in sight for any of the plants. In addition to the compliance decision by the NRA, the power plants also need to gain approval of the local community before they can restart. A street poll conducted by an environmental group from Ozu city found that 189 of 267 respondents were against restarting the Ikata Nuclear Power Station. Thus, even though the reviews by the NRA are proceeding, other hurdles remain.

From January 19 to 22, METI Minister Motegi visited Abu Dhabi, UAE to meet with several key figures, including Sheikh Mohammed, and agreed to cooperate extensively in the area of energy. They also agreed on further cooperation in nuclear power, particularly in securing safety such as establishing an emergency response system, by sending Japanese experts to the research institutes and universities of the UAE and regularly holding seminars. Emerging countries including the UAE have decided to introduce nuclear power to meet the increasing demand for energy and are actively making preparations, and have high expectations for technological cooperation from Japan, which has experience and knowledge in nuclear safety and security following the Fukushima Daiichi accident. It is in Japan's national interest to respond to such expectations and needs of other countries, and the government is expected to continue its nuclear diplomacy.

Without a national consensus on the optimal combination of energy sources in Japan, nuclear plant manufacturers are expanding in the growth markets overseas at their own initiative. Following the acquisition of Horizon by Hitachi-GE Nuclear Energy last year, on January 15 Toshiba bought a 60% stake in NuGeneration which plans to construct new nuclear power plants in the UK. Mitsubishi Heavy Industries launched the Turkey Nuclear IPP Development Department on February 1 to step up its involvement in the Sinop Nuclear Power Plant project in the country. Japanese companies look set to continue actively expanding overseas, thus maintaining the level of domestic nuclear technology and long-term human resources, while also maintaining international competitiveness.

### 3. European Commission declared their draft new Energy/Environment Policy Target

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

On January 22, the European Commission announced a draft framework for its new policies on climate change and energy, indicating the targets for GHG emissions reduction and introduction of renewable energies by 2030, and the relevant activities. The framework is based on a Green Paper released in March 2013 and was completed following a public comment period, and will serve as a working draft for the decision-making process of parliaments and councils within the EU.

There are three key points in the draft framework for 2030: (1) reducing greenhouse gas emissions by 40% from 1990 levels, (2) increasing the percentage of renewable energies in final energy consumption to 27%, and (3) improving energy efficiency to achieve a competitive, safe and sustainable energy policy. In particular, the GHG emissions reduction target of 40%, which is twice as high as the current target of a 20% reduction by 2020, shows, at least superficially, the EU's determination to strengthen the GHG reduction measures within the EU and firmly maintain its international lead in the area. However, the reality is not so simple.

The most important point about this proposal is that it is a change in structure and content from the current 2020 target, which aims to simultaneously achieve three targets: 20% reduction of GHG emissions, renewable energies share of 20%, and 20% energy conservation (so-called "triple 20 targets"). Since its release, the Green Paper has exposed differences in views among member countries, and the proposal appears to be a compromise among such differences.

For example, while the new renewable energy's target is supposed to be legally binding, the legal force applies only to the EU-level targets, and not to the targets of each country, unlike the current target. Further, regarding energy conservation, the actual details of the target will remain open for review until the end of this year. This is presumably in view of the various problems the EU is facing, such as economic issues including recovery from the government debt and banking crisis, concerns over the massive investments needed for renewable energies and the rising costs, and the differential in energy costs between Europe and the US due to the US's Shale Revolution and its impact on competitiveness. Another point about the energy conservation target is that its relationship with the 40% GHG reduction target and the degree of contribution has not been clarified. With many difficulties hindering the EU from declaring its long-term strategy, the details of each policy measure will be able to agree on ambitious targets and on strengthened policy measures that increase the probability of attaining such targets, and continue to lead the international environmental discussions must be closely monitored.

## 4. ME Watching: The Situation Remains Precarious in Syria, Iraq and Iran

Koichiro Tanaka, Managing Director & President of JIME Center

After more than twelve months of difficult coordination, the international peace talks for ending the civil war in Syria, or Geneva II, were finally held with the participation of representatives of both the Assad regime and the dissidents. Yet little was achieved concerning the transportation of humanitarian supplies to Homs in central Syria now under government siege. The Syrian National Council, which is strongly influenced by the Muslim Brotherhood, announced that it would break away from the National Coalition for Syrian Revolutionary and Opposition Forces which represents the dissidents, and the in-fighting continues within the anti-Assad forces between two jihadist groups, the Islamic Front and the Islamic State of Iraq and al-Sham (ISIS). The future remains uncertain and the Syrian civil war looks set to drag on.

The turmoil in Syria is affecting Iraq. Throughout last year, the volatility and confusion in Iraq worsened significantly, causing the number of civilian victims to exceed that of 2008. The Maliki administration attempted to eliminate the ISIS, which has gained ground in the Sunni regions, from Anbar Province where public security has been deteriorating in line with the worsening situation in Syria, but is now facing widespread criticism for stepping up the repression of Sunni political forces. The domestic strife in Iraq is likely to escalate as the parliamentary election draws near.

On January 20, the interim agreement on Iran's nuclear development went into effect for a period of six months. On the same day, the IAEA confirmed that Iran has ceased part of its enrichment activities, and the economic sanctions by Europe and the US are expected to be partially eased. In Iran, public expectations for the return of foreign investment are already overly optimistic. At the World Economic Forum in Davos, President Rouhani revealed his commitment to economic development, and newly justified Iran's stance toward nuclear development. However, there is increasing criticism in Iran that the interim agreement cedes too much ground, and so the negotiations on a comprehensive agreement are facing a difficult stage.

In Egypt, a national referendum was held on the draft Constitution, resulting in 98% approval. However, the voter turnout was only 38%, emphasizing the gravity of the divide in the country. Subsequently, plans to hold a presidential election in April were announced, and Field Marshal Abdul Fattah al-Sisi, Egypt's Defense Minister, is expected to run with the support of the Supreme Council of the Armed Forces (SCAF). The third anniversary of the revolution was tainted with blood by clashes between the supporters of the Muslim Brotherhood and the military. With sporadic terrorist attacks occurring throughout the country, the decision to label the Muslim Brotherhood as a terrorist group will continue to cause serious problems.

## 5. US Watching: Facing Energy Policy Issues from the Start of the Year

Ayako Sugino, Senior Researcher Coal & Gas Subunit Fossil Fuels & Electric Power Industry Unit

President Obama's State of the Union address on January 28 emphasized the importance of reducing economic disparities. Heading toward the midterm election in November, his address highlighted the contrast between the Republicans who advocate the interests of the rich and big business, and the Democrats who support the middle class and the poor.

There are innumerable economic policy issues heading toward the midterm election, with energy and the environment remaining key areas. The administration commented that the big freeze throughout the country since the beginning of the year "is proof that climate change is real", further justifying controls on greenhouse gas emissions. As President Obama has declared that he will "exercise the presidential authority to implement any policy that can be implemented with it, without Congress's approval", the regulatory policies of the Environmental Protection Agency (EPA), including the regulation on power plants, are likely to be strengthened.

Although the administration appears to have emphasized presidential authority as an "alternative" since the emissions trading bill was scrapped in Congress in the autumn of 2010, the stance goes back further. In spring 2010, President Obama appointed as a Supreme Court justice a jurist who supports strong presidential authority, and looking even further back, the campaign strategist for the 2008 election also supported the active use of presidential power.

The Republicans have been constantly opposing the use of unilateral presidential authority, but matters are starting to change. Following the oil train crash in North Dakota last December, a bipartisan group of lawmakers is urging Congress to strengthen safety standards. When the Department of Transportation announced this January that train safety standards will not be established until 2015, the Republican lawmakers criticized the slow rule-making process of the federal government as the risk of oil transportation by train had been pointed out in 2012. The administrative process is based on strict procedural rules to secure fairness and transparency, and while it is effective for bypassing the deadlocked Congress, it cannot respond quickly.

Another challenge for the government is the soaring price of natural gas and electricity due to the big freeze. In addition to the sharp increase in demand for heating gas and electricity combined with power plant and gas pipeline accidents, limited pipeline transportation capacity is another possible cause of the price hike. Behind all these factors are the discrepancies between existing demand areas, power generation facilities and gas producing areas, and the power grid and pipeline network that connect them, resulting from the major shift from coal power to gas power due to the drop in gas prices.

To solve this bottleneck in infrastructure, it is essential to expedite the construction licensing process for pipelines, which involves an environmental impact assessment. Scientific studies on the environmental impact of methane leaks and water contamination due to shale gas development (hydraulic fracturing) have yet to be completed, and so licensing a gas pipeline which "as a result of construction, could activate hydraulic fracturing and thus damage the environment" will require an important political decision. The background and current situation of this problem will directly affect the Keystone XL pipeline and oil sands that have still not been licensed five years after the proposal was made. The government needs to make a consistent value judgment, while responding promptly to the supply and demand for energy.

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**IEEJ Homepage Top** 

**Back Numbers of IEEJ e-Newsletter**