

Reviewing Japan's Energy Policy History (3): Energy Policy Overhaul

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In this third essay in the "Reviewing Japan's Energy Policy History " series, I would like to take up energy policy initiatives seen since the beginning of the 2000s. While discussing the importance of the Strategic Energy Plan formulated under the Basic Act on Energy Policy, I would like to focus on the overhaul of energy policy under the enormous impact of the Great East Japan Earthquake and the Fukushima nuclear power station accident that occurred in 2011.

In the first two essays of this series, I argued that energy security policy was positioned as the most important basic issue for Japan based on the experiences with the oil crises and that energy market liberalization and responses to global environmental problems emerged as new important issues in the 1980s. In the 1990s, when crude oil prices in the international energy market remained low and the view that energy prices would not rise in the future became widespread as a paradigm, interest in energy security declined relatively.

In the 2000s, however, the international energy situation changed significantly. The average annual price of the benchmark West Texas Intermediate crude oil rose from less than \$14 per barrel in 1998 to more than \$19/bbl in 1999 and topped \$30/bbl in 2000. Later, the price gradually rose while repeating fluctuations, reaching \$41/bbl in 2004, \$56/bbl in 2005, \$66/bbl in 2006, and \$72/bbl in 2007, before surpassing \$100/bbl in 2008. There was a complex interplay of various factors behind these price hikes, including the spreading market view that the global energy demand would continue to increase significantly due to China's explosive energy consumption. In addition, there was a view that an oil supply peak would come due to the limits of oil resources. Under these circumstances, the value of resources rose significantly, enhancing the positions of resource-rich, oil-producing, and energy-exporting countries and intensifying resource nationalism. Then, there was a growing recognition that structural factors to tighten the supply-demand balance in the international energy market had become apparent.

Against this backdrop, Japan gave priority to energy security again. In 2002, the Basic Act on Energy Policy was enacted, setting out the basic policy of "utilizing market principles" while giving due consideration to "securing a stable energy supply" and "environmental protection." The three policy objectives were interpreted as energy security, environment, and economic efficiency and called the 3Es. Energy security, which had originally been the most important objective and became important again under the new situation since the beginning of the 2000s, was positioned ahead of the environment and economic efficiency, which had become important in the 1980s. An energy policy that pursues the three objectives simultaneously became Japan's basic policy.

The Basic Act on Energy Policy called for formulating the Strategic Energy Plan as Japan's long-term energy vision every three years. The first Strategic Energy Plan was formulated in 2003, followed by the second plan in 2007 and the third plan in 2010. Taking into account the domestic and

overseas energy situation, Japan thus implemented the strategic energy plan to pursue the 3Es simultaneously.

In 2006, the New National Energy Strategy was formulated as a policy to specifically address the issue of energy security, which emerged as an important global issue again in the 2000s. The strategy called for energy conservation and energy efficiency, the transportation sector's reduction of dependence on oil, and the promotion of nuclear power and overseas resource development.

However, the Great East Japan Earthquake and the accident at Tokyo Electric Power Company's Fukushima Daiichi nuclear power station on March 11, 2011, forced Japan's energy policy to be revised from the ground up. Japan's energy security or stable energy supply was shaken to the core by the unprecedented disaster and nuclear power station accident. CO₂ emissions increased dramatically due to heavier reliance on fossil-fueled power generation, which increased significantly to cover a decline in power supply due to the shutdown of nuclear power plants. A significant increase in energy costs and a huge outflow of national wealth came due to crude oil price hikes from 2011 to 2014. Japan's 3Es suffered an unprecedented blow.

Under these circumstances, national discussions on the formulation of the Strategic Energy Plan were extremely difficult. How to ensure the stable and affordable procurement of fossil fuels such as oil, LNG, and coal became a serious issue that affects the Japanese economy. With nuclear power plants shut down, hopes placed on solar and other renewable energy as a new non-fossil energy source grew rapidly. How to substantially spread renewable energy in an economically rational manner became an urgent issue. Furthermore, Japan was forced to accelerate energy conservation and efficiency even after becoming a global top runner in energy efficiency thanks to its efforts since the oil crises.

While overhauling energy policy from the ground up, Japan chose to promote the liberalization and deregulation of the energy market again. In particular, the government strongly implemented an electricity and gas system reform including the full liberalization of the electricity and gas retail market and the legal unbundling of the power transmission and distribution sector from the power generation and retail sector. The introduction of competition and the promotion of market principles changed Japan's electricity and gas market structurally and significantly, leading market players to adapt their behaviors and strategies to the new market structure.

However, the most difficult energy policy issue was how to position nuclear energy. This was because nuclear energy, which had been supposed to significantly spread to achieve the 3Es simultaneously under the then Strategic Energy Plan, faced strong safety concerns and a significant decline in social acceptance due to the unprecedented Fukushima accident. Undoubtedly, national discussions on how to position nuclear energy for Japan's 3Es while facing this "reality" were the most politically and socially difficult and sensitive for the formulation of a new Strategic Energy Plan.

After long, difficult discussions, the Fourth Strategic Energy Plan was approved by the cabinet in April 2014. The important point of the new Strategic Energy Plan was that it clarified a new basic policy of pursuing the 3Es simultaneously based on the basic premise of "safety" in line with sincere remorse regarding the Fukushima accident. This means that Japan's energy policy slogan changed from the "3Es" to the "S+3Es." However, the decision on the future target energy mix for the new Strategic Energy plan was postponed. While opinions on the energy mix clashed with each other in a complex way, the government took more than a year to formulate the target energy mix for 2030. The new target energy mix presented in July 2015 featured a 22-24% share for renewable energy and

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a 20-22% share for nuclear, seeking to raise Japan's energy self-sufficiency rate from 6% to 25%, cut electricity costs, and achieve a greenhouse gas emission cut of 26% from 2013 to achieve the 3Es. The GHG emission reduction target was regarded as comparable to European and U.S. levels. This energy mix became the backbone of energy policy before the 2020s.

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