

## **Conflict between Energy Market Liberalization and Energy Security/Climate Initiatives**

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This week, I had an opportunity to discuss various energy issues with energy experts, energy policy makers and energy industry people in Japan and other countries on an online basis. The most impressive point at the discussion was the relationship or tradeoff between energy market liberalization and major market externalities including energy security and enhanced climate change countermeasures, as indicated by the title of this report.

In Japan, discussions on the sixth Strategic Energy Plan have reached the final stage. As is well known, the Strategic Energy Plan in principle seeks to simultaneously pursue the 3E's – energy security, environment protection and economic efficiency – on the premise of safety based on sincere regrets over the Fukushima nuclear plant accident. Specific indexes for the 3E's targets are the energy self-sufficiency rate for energy security, the greenhouse gas emission reduction target regarding the environment and the electricity cost for economic efficiency.

Regarding economic efficiency, however, discussions on the Strategic Energy Plan indicate that the concept of using market forces has played key roles. The 2002 Basic Act on Energy Policy, on which the Strategic Energy Plan is based, sets out three guiding principles – the securement of stable energy supply, environmental compliance and the use of market forces. The last principle means that Japan should promote market deregulations, promote market liberalization and expand competition under the recognition that the improvement of energy market efficiency is key to resolving energy issues.

Global energy market liberalization began to make progress as a global trend under the U.K. and U.S. leadership in the 1980s. Japan launched the liberalization of the oil market in the second half of the 1980s and that of the electricity and gas markets in the 1990s. The oil market liberalization was completed as the Petroleum Industry Act was abolished in 2002. Since then, electricity and gas market liberalization has remained a key challenge. There have been various backgrounds behind the electricity and gas market liberalization. After reviewing its overall energy policy in response to the 2011 Great East Japan Earthquake and Fukushima nuclear plant accident, the government decided to complete electricity and gas market system reforms.

Since then, the electricity and gas markets have gradually been liberalized through such measures as the full deregulation of retail sector and the legal separation of the network division, with consideration given to the two markets' characteristics. New entries into the retail market have forced traditional market participants to lose their market shares. The wholesale electricity market has been remarkably vitalized, leading to dramatic changes in the competitive situation. As the use of market forces has made progress, Japan's electricity and gas markets have become more competitive than ever before. In the abovementioned oil market liberalization, a structural decline in oil demand and intensified competition have led to mergers and integration. After dramatic changes,

Japan's oil market is now dominated by two major groups.

In this way, the use of market forces has steadily been promoted along with the enhancement of stable energy supply and climate change and other environmental measures, which is extremely important for Japan (and any other country in the world). Complicatedly, however, the promotion of liberalization through the use of market forces has a tradeoff relationship with market externalities such as energy security and climate change measures.

Costs are a key point for considering this relationship. Essentially, the use of market forces and market liberalization promote competition to increase efficiency. Market players exposed to competition must promote thorough rationalization to cut costs and enhance competitiveness for their survival. They review their assets, eliminate wastes and cut unnecessary surpluses while considering their future growth strategies. It is obvious that cost-cutting pressure is strong in any essentially competitive market. However, stable energy supply and environmental compliance can be attained through specific measures. If left to market forces alone, they cannot be attained. Additional measures or costs are required to attain stable energy supply and environmental compliance. If additional equipment or supply chain redundancy is required to secure stable energy supply, additional costs are inevitable. If costly innovative technology options are required to counter climate change, additional costs are indispensable. In this way, costly measures for market externalities conflict with cost-cutting pressure in a competitive liberalized market.

As a matter of course, individual companies as market players are required to adequately secure stable energy supply and respond to climate change and other environmental problems, positioning costs for such measures as the prerequisite for their business strategies or survival. Essentially, however, market externalities must be handled mainly by the government sector. This is because energy security is a national requirement, with climate change and other environmental conservation measures being a national or global requirement. The government sector is required to make and implement national policies for energy security and climate change prevention in consideration of national or global interests. In this way, additional costs emerge according to the strength of required national policies.

Basically and finally, additional costs are shouldered by the government sector or taxpayers as consumers. The government sector compares such additional costs with benefits for energy security and climate change prevention and implements policies to allow such benefits to exceed additional costs. To citizens or consumers who finally shoulder additional costs, the government sector must explain that additional costs are required for energy security and climate change prevention and that benefits from such costs would exceed the costs.

Whether additional costs are shouldered by taxpayers finally, such costs accompany specific energy market measures and must initially be shouldered by market players to implement these measures. For market players exposed to cost-cutting pressure in a competitive environment, therefore, there is a tough conflict between the additional costs required to respond to market externalities and such pressure. The toughness of the conflict depends on how strong energy security and climate change measures are or how much additional costs are for these measures. When implementing strong energy security and climate change measures, the government sector must take leadership in designing markets and institutions adequately while gaining citizens' full understanding about their cost burdens. The globally seen "big government" trend is designed to respond to the market externalities. The government sector will thus be required to consider carbon neutrality and other new policies while giving consideration to the use of market forces and the

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liberalization of markets.

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