

Significance of Competition Policy in Energy Market -- Its Bright and Dark Sides

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Institutional reforms of energy markets are one of the most important energy policy challenges for any country whether it is a resource-rich country, an energy exporter, an energy consumer or an energy importer. Since energy is an essential good for economic activity and civil life and becomes a strategic good occasionally, energy market design or control covering development, production, exports, imports, distribution, sales and other major energy segments are very significant for governments or states.

Discussions on an electric market system reform in Japan are viewed as significant and are attracting attention because energy market design as a policy challenge is important. Furthermore, the reform has been considered in the context of a thorough energy policy revision based on the impacts of the unprecedented March 2011 disaster including the devastating earthquake and tsunami, and the Fukushima Daiichi nuclear power plant accident. Globally, energy markets are being redesigned amid fundamental market and technological developments including (1) efforts to work out low-carbon energy mixes, (2) a rapid rise of renewable energy supported by policy measures, (3) the growing importance of electric grid and electricity supply/demand stabilization measures under the increasing supply of intermittent renewable energy, and (4) energy supply/demand changes under the ongoing shale revolution. We must pay attention to the global trend where many countries are considering new energy market designs. Here, I would like to discuss what I see as key points for new energy market designs from the macro energy policy viewpoint.

As discussed above, governments have routinely and commonly regulated, managed and intervened in energy markets in consideration of energy's significance and strategic importance. Representing such approach is a view that: "Energy is too important to be left for the market mechanism (alone)". I would like to reiterate that the basic view still exists to some extent. But the expansion and development of energy markets, the technological developments and a rise in the number of market participants have led to a new trend where governments have believed that the introduction of the market mechanism for energy through the adoption of competitive measures and the elimination of various market regulations would be technically feasible and provide greater economic benefits. The belief has spread. Since the early 1980s, the enhancement of free economy management in the United States and the United Kingdom accelerated the deregulation of energy markets and the introduction of competition. Such trend spread from the United States and Europe to the rest of the world. In the 1990s when crude oil prices were stable at low levels, a growingly influential view was that it would be most desirable to leave energy for the market mechanism as energy is nothing but an ordinary commodity.

In fact, the introduction of the market mechanism for energy has brought about great benefits including cost cuts through competition, the pursuit of greater efficiency, the invigoration of markets and individual market players' enhanced competitiveness, since energy is a good tradable in the market. Deregulation and competition introduction policies have broken through structural

problems in which rigid institutions, industrial systems and inefficiency are protected for seemingly justifiable reasons including stable energy supply and environmental protection. They have served to drive a new market dynamism. This is a key aspect of the deregulation. In this sense, energy market reforms and competition introduction have clear benefits and their appropriate promotion has remained important. At the same time, however, energy market experiences have indicated that competition introduction and deregulation are not necessarily a fix-all solution to all problems and that their promotion could cause various difficulties.

First, an option that is the most economically efficient (for a short term) may be chosen more easily in a competitive market as a matter of course, leading the market structure and supply sources to be greatly biased towards one specific direction occasionally. Some excessive bias or concentration could be coupled with market externality and other problems to cause new problems. Before the first oil crisis, oil had globally been chosen as the most economically efficient energy source, leading many countries to grow dependent on oil. Japan had increased its dependence on Middle Eastern oil from the viewpoint of the best economic efficiency. This worked to make the impact of the oil crisis very grave and drove Japan later to promote the diversification of oil supply sources. Apart from energy, we still remember that heavy dependence on the cheapest rare earth metals from China was a factor behind the rare earth supply reduction problem in 2010.

Second, there have been problems involving the best timing of competition introduction and the overall environment at the time. One of the essential benefits of deregulation and competition introduction is greater efficiency or the reduction of surplus. This means that the benefit works best when a relevant market has massive surplus. When the benefit works best, the surplus in a system can be reduced efficiently. Typically, companies have minimized their oil inventories in a “just-in-time inventory approach” for a liberalized oil market. But the improvement of efficiency through competition, though reducing surplus, can make markets vulnerable to external shocks or fluctuations in some sense, bringing about problems with stable energy supply and a substantial increase in price volatility. When competition is introduced into a market, it is important to decide whether the market is characterized by the existence of large scale surplus that must be reduced. If the decision is based on inaccurate judgment in this regard, the benefit may fail to work best, or even accelerating the destabilization of the market.

Third, deregulation and competition introduction work to essentially prevent surplus from emerging or existing in a system as indicated above. This, coupled with the long lead time for energy-related investment, may lead to make the promotion of energy investment difficult. Under the circumstance, an option to be chosen for the diversification of energy sources or some other desirable policy goal may fail to be selected under the market mechanism alone. This problem’s difficulty seems to have been indicated by the United Kingdom’s electricity market reform plan where the government is considering introducing the so-called feed-in-tariff system with CDF, under the recognition that the promotion of long-term investment in electricity sources, including that in renewable energy and nuclear power generation, would be difficult under the market mechanism alone. In this respect, I was very much impressed by an European energy expert who recently told me that the United Kingdom was designing intervention-oriented system in the name of institutional reforms under a competitive market. .

Endless discussions have been made on the bright and dark sides of and benefits and limits of the market or competition mechanism in regard to not only the energy problem but also general economic policies. A key point in considering the bright and dark sides is that we must understand the present situation or conditions and find appropriate measures or policies to address the situation.

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In Japan, the government should consider its energy policy revision in view of global trends and the nation's realities.

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