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Interests Growing in Power Market Reform in Malaysia

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From May 24 to 28, I visited Malaysia for talks with local energy policy planners, energy industry people and energy experts/researchers. On May 26, I had an opportunity to make two presentations on power market problems in the world and answer questions from a large number of industrial, academic and government stakeholders at the Energy Commission that regulates power and gas markets in Malaysia.

Since December 2015, I have served as international adviser to the Malaysian Energy Commission at the University of Tenaga Nasional. In that capacity, I made the two presentations at the request of the Malaysian side including the Energy Commission. One of the presentations covered Japanese power market reform realities and challenges and the other dealt with market conditions and industry responses after power market reforms in Western and other countries.

In the first presentation titled "Lessons Learned from Power Market Liberalization in Japan," I explained (1) Japanese energy policy challenges and the power market reform's positioning, (2) the objectives and history of the power market reform, (3) the roadmap and present situation of the three-phase power system reform, (4) the present power market situation under the reform (wholesale power market conditions, new business entries and competition, smart meter introduction, etc.) and (5) future challenges and initiatives for attaining the best energy mix and securing investment.

In the presentation, I made the following points:

- (1) Japan is forging ahead with new market reform initiatives while facing various energy challenges due to the Great East Japan Earthquake and the Fukushima nuclear power plant accident.
- (2) Since the retail power market was fully deregulated in April 2016, new participants in the market have increased to vitalize competition.
- (3) New market entries and the competition environment have differed widely from region to region, with new entries concentrating in metropolitan regions including Kanto around Tokyo and Kansai around Osaka.
- (4) While trading in the wholesale market has been vitalized, initiatives to further vitalize trading are being implemented.
 - (5) A key challenge is whether Japan can make further progress in the market reform

through the legal separation between power generators and transmitters in 2020, secure investment required for stable power supply and realize the best energy mix by 2030 in a consistent manner.

- (6) Japan is planning a power generation capacity market, non-fossil value certificates and other measures in response to the challenge and designing gross bidding, a baseload power source market and other systems to vitalize the power market.
 - (7) Generally, how to secure policy consistency has become important.

The second presentation titled "Industry and Market Responses to Electricity Market Reforms" explained theory, concept and framework problems regarding electricity market reforms in its first half and the reaction of industries, enterprises and markets to earlier reforms in Western and other countries. The first half covered (1) reasons and backgrounds for electricity market regulation, (2) reasons and backgrounds for deregulating the market, (3) the emergence of volatility in a deregulated market and its effects, (4) the importance of regulatory bodies to monitor and supervise the market reform and competition, and (5) impacts of and problems for massive renewable energy expansion as a current challenge. The second half dealt with (6) electricity market and industrial structure/arrangement changes after deregulation, (7) business internationalization and diversification responding to deregulation, (8) electricity price changes and their effects on fossil fuel power generation efficiency and electricity utility business operations, (9) country-by-country initiatives to secure necessary investment and (10) challenges toward realizing the best energy mix and responses to these challenges.

A key point I made in this presentation was that the electricity market reform has been implemented as a social experiment and could be successful or unsuccessful. Another key point was that the reform represents a process in which devices and initiatives are continuously made to overcome any failure. I also pointed out that while the reform brings competition into the market to trigger pursuit of efficiency, price volatility and general profit margin drops are generated to affect business operators' investment decisions and business strategies. I then noted that as optimization and survival strategies, which affected enterprises are forced to implement from the micro viewpoint, may not necessarily bring about desirable results from the macro policy viewpoint involving energy security and environmental measures but trade off with each other, these strategies may have to be coordinated continuously.

In a question-and-answer session following the presentations, Malaysian participants in the presentation meeting made numerous questions about Japan's power market reform, asking (1) if Japan will be able to attain the energy mix as a policy target under the power market reform, (2) what additional policies or initiatives have been taken to attain the target energy mix and (3) how nuclear power generation will be positioned in a competitive power market. Given that the objectives of the power market reform are restrictions on power price hikes and the attainment of stable power supply, one participant asked if Malaysia and other countries with sufficiently low electricity prices and stable power supply would have to implement any market reform. These

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questions indicated Malaysian people's high interests in the power market reform issue.

As mentioned above, themes of the presentations were based on the Malaysian request, indicating that the market reform issue is significant for Malaysia's energy policy. A background factor is that domestic discussions on the market reform have been promoted mainly at the government, the regulatory body and the power and gas industry. Not only Malaysia but also other Asian countries are moving to reform their respective energy markets. However, how such reform would be implemented in these countries is still uncertain. It is important for these countries as well as Japan to learn lessons from earlier market reform cases and consider and implement reforms suitable for their respective economic and market conditions. In this sense, we must not forget that Japan's market reform, or whether the reform is successful or not, has become a benchmark for Malaysia and other Asian countries.

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