

Mapping the Energy Future

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On May 26-27, “IEEJ 50th/APERC 20th Anniversary Joint Symposium 2016” took place at Hotel Chinzanso in Tokyo. As indicated by the name, the symposium was formulated to commemorate the 50th anniversary of the Institute of Energy Economics, Japan, and the 20th anniversary of the Asia Pacific Energy Research Center. Its theme was “Mapping the Energy Future.” On a registration basis, about 350 participants, including energy policy makers, energy industry people, experts and journalists, attended the symposium, discussing present and future energy and environment challenges.

The symposium consisted of four sessions. Keynote or special addresses were delivered by four special guests – Satoshi Kusakabe, commissioner, Agency for Natural Resources and Energy; Takehiko Nakao, president, Asian Development Bank; Masahiro Sakane, councilor, Komatsu Ltd.; and William Magwood, director general, OECD Nuclear Energy Agency. As the IEEJ inaugurated the Distinguished Fellow system (covering 12 fellows) to mark its 50th anniversary, a total of eight distinguished fellows took part in the symposium: Paul Stevens from Chatham House, Jonathan Stern from the Oxford Institute for Energy Studies and Tatiana Mitrova from the Center on Global Energy Policy at Columbia University for the first session, Nobuo Tanaka from the Sasakawa Peace Foundation for the second session, Mitsutsune Yamaguchi from the Research Institute of Innovative Technology for the Earth and Gerry Thomas from Imperial College in London for the third session, and Kenneth Medlock from the Baker Institute for Public Policy at Rice University and Wim Thomas from Shell International for the fourth session. Presentations and panel discussions based on their expertise, along with moderators who led high-level panelists and discussions, played key roles in deepening discussions at the symposium. In the following, I would like to summarize particularly impressive points for me in the four sessions.

The theme of the first session was how we should approach and deal with current energy challenges. Discussions covered a wide range of current challenges including the international energy market plagued with low prices and oversupply, and various destabilizing factors coexisting in the market. Discussions centered on geopolitical risks among those destabilizing factors, particularly various challenges and problems in Iran and Saudi Arabia. In Iran after the lifting of Western economic sanctions, frustration has accumulated with slower progress in foreign investment and business recovery than originally expected, while Saudi Arabia plans to promote an ambitious vision seeking to break away from its heavy dependence on oil. What oil policy would Saudi Arabia

take? How would its foreign policy including its Iran policy be? These points would be very important for analyzing the future energy market. Arguments in this session said that the market plagued with oversupply was steadily going in the direction of rebalancing and that geopolitical risks in Middle Eastern and other oil producing countries could become factors to dramatically alter the market when the supply-demand balance grows tighter.

The second session dealt with whether Asia Pacific cooperation can be a trump card to address common energy challenges in the region. The Asia Pacific region consists of various countries including the United States, China and Russia as energy superpowers. The significance and seriousness of energy security and environmental problems differ from country to country in the region, depending on countries' respective positions. However, Asia Pacific countries have a common challenge to improve energy efficiency, develop and use cleaner energy and streamline and reform energy markets. Asia Pacific cooperation may not necessarily solve all problems but may play key roles in solving regional problems. An interesting argument in this session was that Japan should make key contributions to spreading and using advanced technologies, energy policy experiences and lessons from the Fukushima nuclear plant accident.

The third session's theme was whether economic prosperity can be reconciled with climate sustainability. Apparently, a focus of discussions in this session was how to assess the Paris Agreement at the 21st Conference of Parties to the United Nations Framework Convention on Climate Change. Participants in the session pointed out problems including how to position the top-down target of 2 C. Given that the agreement features wide coverage of as many as nearly 200 countries, that the agreement adopted a bottom-up approach in which countries voluntarily propose greenhouse gas emission reduction targets and attempt to accomplish them and that GHG emission reduction targets are set to be reviewed every five years in the direction of higher targets being adopted, however, a dominant view in the session was that the Paris Agreement was a key milestone. Major countries' initiatives are important for implementing GHG emission reduction targets. Particularly, participants made questions and answers about Chinese initiatives. They also pointed out that not only the cleaner use of fossil fuels but also nuclear, renewable and other non-fossil energy sources would be important for addressing climate change and other environmental problems and that cool decisions and discussions would be required on risks for each energy option.

The fourth session dealt with the best energy mix for the world in 2030. While various scenarios and possibilities were presented about the future picture of long-term energy supply and demand in the world, participants commonly emphasized that energy conservation would be important for energy security and climate change prevention. From realistic viewpoints, some participants pointed to the importance of fossil fuels and that of the shale revolution that brought about the expansion of new resource frontiers. Participants shared the view that CCS and CCU technology should play a critical role if the world continues to depend fossil fuels in the long run, with renewable, nuclear and other non-fossil energy sources being used increasingly, to fundamentally enhance climate change measures to reduce net GHG emissions to zero. From various angles, they discussed the significance of technological and economic challenges in transition to net zero emissions.

As the present world energy situation has great uncertainties, it is not easy to map the energy future. However, it is important to consider the future picture of energy from objective, scientific and neutral viewpoints and communicate it to the world. The IEEJ and APERC, which respectively observe their 50th and 20th anniversaries this year, are required to make further contributions to solving energy problems in Japan, the Asia Pacific region and the world.

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