Special Bulletin

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Key Issues at 4th IEEJ/APERC International Energy Symposium

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On May 17, the Institute of Energy Economics, Japan (IEEJ), and the Asia Pacific Energy Research Center (APERC) held the fourth IEEJ/APERC International Energy Symposium at the Grand Prince Hotel Takanawa in Tokyo. They have sponsored the flagship annual symposium since the first one that took place in 2016 to mark the 50th anniversary of the IEEJ and the 20th anniversary of APERC. Globally famous experts participated as panelists in the symposium titled "Energy Transition: More Challenges, More Opportunities," making presentations and panel discussions in three sessions. In the following, I would like to introduce the panelists' arguments that were the most impressive for me.

In Session 1 titled "How can we maintain good energy governance under uncertain geopolitical developments?", discussions on the international energy situation were made from the viewpoints of geopolitics and energy governance challenges to protect international energy order stability, based on U.S., Middle Eastern and Russian perspectives.

Ms. Sarah Ladislaw of the U.S. Center for Strategic and International Studies pointed out that U.S. energy policies and strategies had assumed energy shortages in the past but now assume energy abundance thanks to the shale revolution, leading to what President Donald Trump terms the "energy dominance" concept. This means that the Trump administration has growingly taken advantage of energy abundance for maximizing U.S. national interests and emphasized energy abundance in foreign policy and diplomatic strategies. Mr. Fareed Mohamedi of SIA-Energy International noted that Saudi Arabia, the biggest cornerstone for international oil market stability, is being greatly transformed under its new leadership. He indicated that it would be important that Saudi Arabia is seen as pursuing higher oil prices to respond to new domestic and external situations as the oil sector plays pertinently important roles even amid structural reform. Dr. Tatiana Mitrova of Russia's Skolkovo School of Management argued that global energy governance is in a crisis as disarray deepens in international political, economic and geopolitical situations. She noted that the present situation is very severe for Russia that is required to develop various international and domestic strategies including its cooperation and partnership with Japan.

The geopolitical viewpoint is indispensable for analyzing today's international energy situation. The most important players for global energy geopolitics are the United States, Russia, the Middle East and China. Each panelist for Session 1 discussed how to develop relations with China, giving me an opportunity to recognize China's great presence anew.

In Session 2 titled "What will an appropriate energy mix for the Energy Transition be?", participants made discussions from three angles – overall energy supply and demand outlooks, natural gas's roles and nuclear energy's roles.

Ms. Laura Cozzi of the International Energy Agency provided an overall picture of global energy security and climate change challenges based on the IEA's World Energy Outlook 2018. She argued that various energy options have their respective roles to play as energy demand growth centers on Asia among regions and on electricity among energy sources, noting that innovative technologies are important. Prof. Jonathan Stern of the Oxford Institute for Energy Studies pointed out that while natural gas, the cleanest fossil fuel, is highly expected to play a greater role in the global energy mix, there are great challenges and uncertainties. One challenge is that while gas itself is required to be decarbonized in a world where powerful decarbonization is promoted, as typically seen in Europe, it is important for gas to be selected as a price-competitive or affordable energy source in Asia expected to boost energy demand. Mr. William Magwood of the OECD Nuclear Energy Agency emphasized that all clean energy sources are required to promote low-carbonization or decarbonization under the Paris Agreement and that nuclear energy is important among them. He pointed out that policy-side and industry sector initiatives are important for realizing higher safety in a cost-efficient manner and that while innovative technologies grow important, interests in and hopes on small modular reactors are particularly high.

Unless there is a perfect energy source, the key requirement for an energy mix is to use all available options in a well-balanced manner while trying to overcome weaknesses or problems unique to each energy source. Given that energy resource endowment, economic and industrial development, market structure and other conditions differ from country to country, we must take note of the fact that the best energy mix differs among countries.

In Session 3 titled "What policies, corporate strategies and changes in awareness are needed to combat climate change?", what challenges governments and enterprises face in attaining the goal of limiting the average temperature rise to well below 2℃ and how their present initiatives should be assessed were discussed, based on presentations by three panelists.

Mr. Wim Thomas of Shell International BV introduced Shell's Sky Scenario, arguing that there are key steps toward decarbonization to attain the 2℃ goal, including thorough energy efficiency improvement, electrification, transition to new energy systems, carbon pricing, and carbon capture and storage and others. He also pointed out that decarbonization, though being technologically possible, would be a very great challenge for the whole of society. Dr. Kenneth Medlock of Rice University's Baker Institute described U.S. low-carbonization/decarbonization initiatives and relevant market realities, noting that gas's growing share of the energy mix amid shale revolution progress has played a key role in these initiatives in U.S. He also argued that while there are policy initiatives for further low-carbonization including research and development, and tax incentives at the federal level and bottom-up policies taking advantage of local features at the local government level, their achievements remain uncertain. Prof. Dadi Zhou of the Energy Research Institute of the China National Development and Reform Commission emphasized that China, the world's largest greenhouse gas emitter, has steadily promoted low-carbonization initiatives in compliance with the Paris Agreement. He demonstrated China's proactive approach on cutting GHG emissions by citing various relevant initiatives.

Climate change is a challenge for humankind to protect global interests. The world must pursue global interests while coordinating conflicts between national interests and introducing innovative technologies from the long-term viewpoint. Based on energy security and geopolitical

challenges discussed in the previous sessions, adequate energy mixes will have to be developed to promote climate change countermeasures.

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