

At the IFGE 2019

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On July 16, a conference called the “International Forum on Global Energy Landscape (IFGE) 2019” took place in Putrajaya, Malaysia. The third conference of its kind was organized by the Institute of Energy Policy and Research at the University of Tenaga Nasional (UNITEN) and sponsored by the Malaysia Energy Commission regulating the power and gas sectors and Malaysian state-run power utility Tenaga Nasional Berhad (TNB). An opening speech was delivered at the outset of the conference by Yeo Bee Yin, Malaysian Minister of Energy, Science, Technology, Environment and Climate Change, followed by three plenary sessions attended by numerous panelists including prominent international experts, senior Malaysian officials from the Energy Commission, the Ministry of Economic Affairs in charge of the oil/gas sector, the Sustainable Energy Development Authority promoting renewable energy and other Malaysian government agencies, as well as industry executives such as representatives from TNB, the Malaysia Gas Association and energy-consuming manufacturers.

Far more than 300 people participated in the forum titled “Opportunities and Challenges in Global Energy Transition.” It was divided into three plenary sessions in each of which an internationally famed speaker made a presentation for a panel discussion and a question-and-answer session with the audience. I have served as international adviser to the Energy Commission of UNITEN. At the conference, I delivered a keynote speech on the conference title, following the opening speech by Minister Yeo Bee Yin. Participants discussed various matters while keeping in mind what the direction and challenges of the global energy transition would be, what implications they have for the Malaysian energy sector and how Malaysia should face or address its own energy challenges. In the following, I would like to summarize particularly impressive points for me in the three plenary sessions of the forum.

In the first session titled “Long Term Outlook for Global Energy Market and the Role of Renewable Energy,” Ms. Yukari Yamashita, director of the Institute of Energy Economics, Japan, made a presentation for a panel discussion with Malaysian government officials. Amid global energy transition, it is basically important to simultaneously accomplish the 3E challenges – energy security, environmental protection and economic efficiency enhancement – in a well-balanced manner. Based on the IEEJ Outlook 2019, Ms. Yamashita discussed how important and difficult the simultaneous accomplishment of the 3E challenges is.

Based on the fact that coal is a mainstay energy source in many Asian countries including Malaysia, Ms. Yamashita provided costs and challenges for a case in which no new coal-fired power plants would be built from 2020 in the world with substitution either by natural gas or renewable energy power, indicating the complexity and difficulty of the switching away from coal. Renewables including wind and solar photovoltaics have been expanding their share of power generation commonly in the world thanks to rapid falls in its power generation costs and are expected to continue to do so in the future. At the same time, however, overall costs including the cost for

integrating intermittent renewables into the electric system have attracted attention. The most important challenge regarding renewables amid the global energy transition is how to hold down overall costs including the integration cost. The challenge, though being a globally common issue, is important particularly in emerging and developing countries where the affordability of energy is politically and socially significant. As a matter of course, the affordability is very significant in Malaysia.

In the second session titled “Challenges of Power Market Transition and Liberalization,” U.S. Rice University Prof. Peter Hartley made presentations for a panel discussion with Malaysian and Philippine industry and other stakeholders. Prof. Hartley explained that European countries and some of the U.S. states have taken the initiative in liberalizing the electricity market by introducing competition into the market through privatization and deregulation to enhance market efficiency and consumer benefits. While the liberalization has brought about the clear advantage of market efficiency enhancement through competition, the so-called missing money problem has emerged to make it difficult to recover fixed costs for power generation capacity in the competitive electricity wholesale market and maintain or expand the capacity for stable electricity supply, he noted. Prof. Hartley also pointed out that the missing money problem could grow complicated or serious as renewable energy power (including wind and solar PV) rapidly expand their share of the electricity wholesale market. In order to achieve a politically desirable power mix in a competitive electricity market, governments should implement appropriate policy interventions and create adequate market design instead of leaving market forces alone to work on their own.

Malaysia is about to reform electricity and gas markets. Minister Yeo Bee Yin emphasized the significance of such market reform in her opening speech. The market reform sought by the government leader would become a significant challenge for Malaysia’s energy sector. Participants in the forum argued that Malaysia should learn lessons from successful and unsuccessful cases of earlier electricity and gas market reform in Western countries.

In the third session titled “the Role of Gas in Global Energy Transition and Its Challenges in a Sustainable Energy Future,” Prof. Jonathan Stern from the Oxford Institute of Energy Studies gave a presentation, followed by a panel discussion with Malaysian government and industry stakeholders. Prof. Stern pointed out that while global natural gas demand is expected to steadily increase over a long term in the main scenarios of many forecasting institutes, decarbonization initiatives and natural gas’ price competitiveness or affordability are likely to exert great influence on the future of natural gas.

As a symbolic case where decarbonization initiatives have great influence on natural gas demand, Prof. Stern explained the influence of the European Union’s very ambitious initiative including the reduction of net greenhouse gas emissions to zero. Fundamental decarbonization would make the use of natural gas effectively difficult and require natural gas to be replaced by biogas, synthetic gas or hydrogen. In Asia that will lead global natural gas demand expansion, no such strong decarbonization initiative has been seen, with moves growing to switch from coal to natural gas to counter climate change and air pollution. Over a long term, however, progress in decarbonization could affect natural gas demand in Asia. Realistically, meanwhile, Prof. Stern emphasized that natural gas’ price competitiveness or affordability should be adequately enhanced to allow natural gas demand to expand as expected.

In the panel discussion of this session, participants noted that gas and electricity market liberalization would require much time to make markets truly competitive after launching relevant

systems and policies as indicated by European and American cases and that a truly competitive market would be “painful” for existing business players and other stakeholders. They also pointed out that liberalization or deregulation could bring about higher energy prices in Malaysia and other countries where gas and electricity prices are held down by subsidies and that whether such energy price hikes are accepted politically or socially would be key to liberalization. These points are important for considering future policies in Malaysia.

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