

## **Participation in CEPSI 2018**

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On September 17-19, I had an opportunity to participate in the Conference of the Electric Power Supply Industry (CEPSI) 2018 in the Malaysian capital of Kuala Lumpur. The bi-annual CEPSI is hosted by electric utilities belonging to the Association of the Electric Supply Industry of East Asia and the Western Pacific (AESIEAP) in rotation. The latest or 22nd one was sponsored by Malaysian electric utility Tenaga Nasional Berhad.

The large-scale conference attracted more than 2,000 participants as estimated by the sponsor, including Malaysian government officials, representatives from ASIEAP member companies and relevant firms for electricity industry, and experts. Under the title “Reimagining Utility of the Future,” they discussed the future course and wide-ranging challenges of the electric power supply industry amid a global energy transition.

Malaysian Prime Minister Mahathir Mohamad attended the conference to give a special address. Delivering a keynote address at the opening ceremony was Yeo Bee Yin who heads the newly created Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC). When Prime Minister Mahathir made the special address at the Plenary Hall, many audience members had no choice but to be standees, indicating his high popularity. In addition to the special address, a total of 17 keynote addresses were delivered in five keynote sessions accompanied by six technical sessions. I took the opportunity to participate in Keynote Session 2. In the following, I would like to make comments on impressive points of the conference.

First, discussions at the conference were based on a common recognition that while energy demand is expected to continue expanding over a long term mainly in Asia, electricity demand is likely to post particularly high growth in the so-called electrification of energy demand. Various future energy scenarios commonly suggest progress in the electrification of energy demand. The problem is how fast and strongly the electrification would progress. Many people at the conference forecast the further acceleration of the electrification amid growing hopes on the electrification of vehicles in the course of economic and social digitalization.

Electricity is indispensable for all countries and societies, and their citizens. The great expansion of electricity demand or the growing electrification of energy demand means that the stable supply of indispensable electricity will grow even more significant for states, societies and citizens. In this sense, the mission of the electric power supply industry will grow even more important. For the electric power supply industry, the market is potentially destined to expand. The industry is now required to explore business chances in the potentially growing market.

Second, while various challenges emerging amid the market expansion were pointed out, participants in the conference gave rather optimistic prospects expecting technological solutions to these challenges. Surely, the electrification will make global progress. Amid such progress, however, the power sector known as the largest carbon dioxide emission source will be required to continue decarbonization initiatives over a long term. In emerging Asian economies including Malaysia, air pollution countermeasures are more urgent than climate change countermeasures. Therefore, great hopes are placed on the diffusion of clean electricity. In this respect, conference participants placed expectations on renewable energy power generation that is expanding fast on rapid cost falls.

In the course of renewable energy's rapid diffusion, decentralization, or a transition from centralized power systems to distributed ones, will be a major reform. The expansion of intermittent power sources, the decentralization and advanced demand control are expected to keep step with the abovementioned digitalization. I felt that most of the participants in the conference were optimistic that the development and diffusion of advanced energy technologies attracting global interest now would provide solutions to various power sector challenges.

As noted in the keynote address by MESTECC Minister Yeo Bee Yin, clean and eco-friendly energy and electricity are required and their supply must be made affordable in line with each country's conditions. It may not be easy to solve these challenges in a society in which electricity is growing even more important. At the conference, however, most of the participants presented positive long-term prospects expecting technological solutions to these challenges.

Third, I would like to point out that there will be various challenges for the electric power supply industry including incumbent utilities before technological solutions to these challenges are provided in the far future and that how to overcome these challenges will be very important for the industry. These challenges include spillover effects of power market deregulation. While most Asian countries have yet to implement such deregulation, deregulated markets indicate very complicated and difficult challenges such as how to secure investment and achieve politically desirable energy mixes. Such challenges also include a decline in wholesale electricity prices and growing difficulties in recovering capital costs ("the missing money problem") that are accelerated by renewable energy-based electricity's massive inflow into a competitive wholesale power market.

At the same time, the electric power supply industry is growingly required to enhance its measures against abnormal weather, natural disasters, cyberattacks and other risks as society grows even more dependent on electricity amid progress in electrification. Amid dramatic changes in the world and market, stable power supply is growing even more important.

As digitalization, decarbonation, decentralization and deregulation become keywords for electricity, the electric power supply industry is urged to stably provide eco-friendly electricity at affordable prices. Its missions or roles are very significant. The industry will be required to have flexibility and innovativeness to adequately adapt to the changing market environment.

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