

## **Key Points of 6th IEEJ/APERC International Energy Symposium**

Ken Koyama, PhD  
Chief Economist, Managing Director  
The Institute of Energy Economics, Japan

On April 23, the Institute of Energy Economics, Japan, and the Asia Pacific Energy Research Center held their sixth international energy symposium titled “Carbon Neutral: What Does This Mean for the World?” The annual symposium has been held since the first one marking the 50th anniversary of the IEEJ and the 20th anniversary of APERC in 2016, becoming a flagship IEEJ/APERC event. Like the fifth one last year, the sixth took the form of an online meeting amid the COVID-19 disaster. As consideration was given to the time difference problem regarding speakers from Europe and the United States, Session I ended at shortly past 10:30 a.m. and was followed by the next session that started at 3 p.m. The symposium featured panel discussions in three sessions and a special address by Shin Hosaka, Commissioner of the Japanese Agency for Natural Resources and Energy. Panelists also held vigorous discussions with other participants. The symposium titled “Carbon Neutral: What Does This Mean for the World?” was extremely timely because U.S. President Joe Biden hosted an epoch-making online climate summit from April 22, in which top leaders discussed carbon neutral targets for 2050 or later. In the online summit, the United States announced a target of cutting greenhouse gas emissions in 2030 by 50-52% from 2005. Japan for its part came up with a target of reducing GHG emissions in 2030 by 46% from 2013. In the following, I would like to give my personal comments on key points of each session of the symposium.

The panelists for Session I titled “Can the world achieve carbon neutral?” were Dr. Kenneth Medlock III, Senior Director, Center for Energy Studies, Rice University's Baker Institute; Mr. Allan Fogwill, President & CEO, Canadian Energy Research Institute; and Dr. Fuqiang Yang, Senior Adviser, Climate Change and Energy Transition Program, Institute of Energy, Beijing University. IEEJ Board Member Hiroki Kudo served as moderator.

I felt that the three panelists did not answer “yes or no” directly to the question of whether the world can achieve carbon neutral in the title of this session. I think that there were two key points in answering the question. First, the question asked if the entire world, rather than the United States, the European Union, Japan or any other specific economy, can achieve carbon neutral. Second, the question specified no deadline for achieving carbon neutral. It is significant whether the deadline is 2050, 2060, 2070 or the end of this century. An apparent consensus view given in the session may have been that it may not be easy for “the entire world” to realize carbon neutral in the middle of this century even if advanced economies and China that have announced carbon neutral targets make maximum serious efforts. As a matter of course, those efforts will promote GHG emission reductions substantially. However, a key point given in the session was that achieving carbon neutral would require a revolutionary transition from the current energy system and it would be difficult because energy equipment and infrastructure are set to remain legacy infrastructure over the long term. Another key point was that even if advanced economies make progress in decarbonization, developing and emerging market economies that have dominant populations and require affordable energy sources for future economic development would have difficulties in going ahead with

complete decarbonization. Serious efforts mainly in advanced economies and the development and diffusion of innovative technologies may allow the world to go ahead with decarbonization and gradually come closer to carbon neutral. Achieving global carbon neutral may be a very long-term challenge.

Session II was titled “Can developing countries pursue the dual goal of carbon neutral and economic growth?” The panelists for the session were Mr. Wim Thomas, Former Chief Energy Adviser, Shell Strategy Business Environment, Shell International BV; Dr. Siri Jirapongphan, Former Minister of Energy, Thailand; and Dr. Leena Srivastava, Deputy Director General for Science, International Institute for Applied Systems Analysis. IEEJ Managing Director Yukari Yamashita served as moderator.

A view given in this session was that developing economies could achieve economic growth while trying to realize carbon neutral if the world forms a virtuous cycle for various policies, technology development and diffusion and international cooperation to support initiatives for carbon neutral that is technically potential. Many advanced economies that have announced their respective carbon neutral targets emphasize that green investment to realize the targets would create jobs and contribute to long-term economic growth, placing great hopes on an ideal virtuous cycle. However, whether the targets would really be realized is apparently uncertain. Whether a gap would emerge between hopes and realities amid such a great social experiment would attract global attention. Carbon neutral targets may be more ambitious and challenging in developing economies. This is because these economies are required to provide affordable energy for people who do not have access to such energy. In the session, it was pointed out that whether economic growth can be achieved is a major challenge for developing economies. This means that an important viewpoint is whether economic growth meets basic needs including the correction of inequalities or gaps and the improvement of sanitation. GDP growth would be meaningless if gaps widen and most citizens are left behind. Whether achieving carbon neutral would lead to real social development and improvement, rather than economic growth, should be called into question in developing economies.

The panelists for Session III titled “How will the Middle East respond to the global carbon neutral movement?” were Prof. Paul Stevens, Distinguished Fellow, Energy, Environment and Resources, Chatham House, United Kingdom; Dr. Raja Almarzoqi, Former Adviser, Middle East and Central Asia Department, International Monetary Fund; and Dr. Adnan Shihab-Eldin, Former Director General, Kuwait Foundation for the Advancement of Sciences, Kuwait. I served as moderator.

In this session, the three panelists indicated that the Middle East would face a grave challenge as the world goes in the direction of carbon neutral. If the world promotes decarbonization, traditional fossil fuel consumption will decline globally, as symbolized by an oil demand peak. Then, downside pressure will be exerted on oil prices, seriously affecting oil-producing Middle Eastern countries that depend heavily on oil revenue. As non-oil-producing Middle Eastern countries depend economically on oil-producing countries, the entire Middle East will be economically, socially and politically affected. This is basically because oil-producing economies are dependent on huge rent from super normal profits gained from oil sector. If the rent declines, there emerges a serious risk that the Middle East may be destabilized. In response, the Middle East will have to develop and use blue hydrogen and ammonia from fossil fuel resources to adapt itself to a carbon neutral world and diversify and upgrade the economy. Hopes on blue hydrogen and ammonia are high, but the rent would inevitably decline, making economic diversification imperative, as pointed out in the session. Middle Eastern countries’ serious self-help efforts and international cooperation will be essential.

IEEJ : April 2021©IEEJ 2021

Investment in technology and human resources development and education will be indispensable. It was impressive for me to see discussions in this session indicating high hopes placed on Japan's cooperation in these fields.

Contact: [report@tky.ieej.or.jp](mailto:report@tky.ieej.or.jp)

The back issues are available at the following URL

[http://eneken.ieej.or.jp/en/special\\_bulletin.html](http://eneken.ieej.or.jp/en/special_bulletin.html)