

## **Discussions at OPEC on IEEJ Outlook 2025**

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On November 11, the 10th Technical Meeting on Asian Energy and Oil Outlook was held in a face-to-face and online hybrid format at the Secretariat of the Organization of the Petroleum Exporting Countries in Vienna. As explained in “A Japanese Perspective on the International Energy Landscape (610),” the annual Technical Meeting was launched in 2015, originating from regular meetings between the OPEC Secretariat and the Institute of Energy Economics, Japan, including the first one in 1987. At the latest meeting, OPEC Secretariat officials, representatives from OPEC members, and experts from countries such as Japan, China, and South Korea discussed the Asian energy and oil market outlook under the Chatham House rule.

At the first session of the meeting, OPEC’s latest long-term energy supply and demand outlook titled “World Oil Outlook 2024” and the IEEJ Outlook 2025 were presented for interesting discussions. At the second session, experts from Japan, China, South Korea, and other countries made presentations on CCS (carbon capture and storage), CCUS (carbon capture, utilization, and storage), and negative emission technologies (NETs) that have attracted global attention amid the energy transition toward decarbonization. A researcher from a research organization specialized in CCS also made a report, followed by discussions focusing on CCS. Given that the meeting was based on the Chatham House rule, I would like to summarize my personal impression of the important points of discussions at the meeting, including those on the IEEJ outlook, as follows.

The IEEJ outlook provides a global energy outlook through 2050 each for the Reference Scenario, in which present trends will continue, and the Advanced Technologies Scenario, in which advanced energy technologies to enhance decarbonization and energy security will be introduced to the maximum extent. See “A Japanese Perspective on the International Energy Landscape (711)” for the features and key points of the outlook, which is characterized as a forecast to analyze the future under various assumptions. The outlook features analyses on two important topics – (1) the role and importance of liquefied natural gas in future energy transition and (2) five important energy security risks for checking the future international energy situation. (The outlook also features four special box analyses including a lifecycle analysis on greenhouse gas emissions from vehicles.)

I made a presentation on the latest IEEJ outlook, summarizing the major points mentioned above. Through discussions on the outlook, I received some important impressions. First, I reaffirmed the importance of Asia to the international energy situation. As indicated by the title, the meeting focused on Asia’s energy outlook. The IEEJ outlook emphasizes that India and the Association of Southeast Asian Nations will drive global energy demand growth in the future. This represented a common recognition at the meeting. China will be replaced by India and ASEAN as a global energy demand growth driver and reduce energy demand over the long term. Nevertheless, China’s presence in the international energy situation will remain dominant. This is because China features an absolutely great energy demand size and exerts great impacts through its energy demand reduction as a matter of global interest. Another key point regarding China is that the country boasts of its distinctly high shares

of global clean energy production capacity and critical mineral supply at a time when the division of the world is being deepened. Asia's importance as indicated in the IEEJ outlook was highlighted anew at the meeting.

Second, participants in the meeting were highly interested in the roles of fossil fuels and underinvestment in their production as a future risk factor. The IEEJ outlook projects that fossil fuels will account for 54% of global primary energy supply in 2050, even in the Advanced Technologies Scenario, indicating that fossil fuels will retain their dominant position while reducing their share of global energy supply. The OPEC outlook is more bullish or optimistic about future oil demand, depicting a future where fossil fuels will maintain their important position even during the energy transition towards 2050. Interestingly, participants in the meeting pointed out the importance of underinvestment in fossil fuel production as one of the five energy security risks taken up as a key topic in the IEEJ outlook.

The outlook highlights the need for appropriate investment in oil, gas, and LNG production by pointing out that a supply-demand gap for these fossil fuels would widen dramatically as their existing production capacity depletes naturally. Some participants in the meeting highly appreciated the outlook for clarifying the viewpoint of the existing production capacity's natural depletion. Another interesting point is that participants in the meeting were interested in the outlook's notion that low-income countries and groups would be most affected by energy market destabilization and price hikes amid underinvestment and a tighter supply-demand balance. I reaffirmed the common recognition that appropriate investment in fossil fuels is important for a steady, smooth energy transition over the long term.

Third, I felt a high interest in CCS, CCUS, and NETs through the meeting. I got that feeling not only because participants in the meeting appreciated the IEEJ outlook for citing CCS, CCUS, and NETs as making major contributions to CO<sub>2</sub> emission reduction but also because the second session of the meeting focused on these decarbonization technologies. A background factor behind the high interest in these technologies is that they attract interest as potential options while fossil fuels continue to play a role as energy sources. Another factor is that NETs and other innovative technologies are apparently required to substantially reduce emissions over the long term. Through the meeting, I became aware that CCS, CCUS, and NETs technologies should be highlighted from a comprehensive viewpoint in the context that every technology or option will have to be mobilized for the energy transition. Asian countries are enhancing CCS, CCUS, and NETs initiatives according to their respective conditions. We will have to pay attention to future policies and technological innovations regarding these decarbonization technologies, as well as the enhancement of renewable energy, nuclear, and clean hydrogen initiatives.

Another interesting point of the meeting was that the importance of energy efficiency was discussed. The IEEJ outlook pays attention to the stock effect of energy-efficient equipment, depicting a future where energy efficiency will be promoted over the long term. Energy efficiency promotion is analyzed as making leading contributions to CO<sub>2</sub> emission reduction. Participants in the meeting indicated their strong interest in where and how energy efficiency improvement could be accelerated. The IEEJ outlook features an attempt to dig deeper into energy efficiency improvement anew. Unexpectedly and impressively, I found an insightful awareness about such an attempt at the meeting.

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