

OPEC World Oil Outlook 2023 and IEEJ Outlook 2024

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On November 14, the 9th 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, South Korea, India, and ASEAN members discussed the Asian energy and oil market outlook under the Chatham House rule.

In the first session of the meeting, OPEC's latest long-term energy supply and demand forecast, the World Oil Outlook (WOO) 2023, and the IEEJ Outlook 2024 were presented for interesting discussions. Since this was a meeting based on the Chatham House rule, I would like to summarize only issues related to the two long-term outlooks and my personal comments.

The WOO is characterized by its global energy supply and demand outlook through 2045 centered on the Reference Scenario. In this scenario based on current trends and OPEC's recognition of energy market realities in a sense, global primary energy demand will increase by 23% between 2022 and 2045, driven by developing countries outside the Organization for Economic Cooperation and Development. Non-OECD countries' share of global primary energy demand will expand from 63% in 2022 to 71% in 2045. Renewable energy will show the largest demand growth among energy sources. Natural gas, oil, and nuclear demand will also expand until 2045, while coal demand will decrease substantially.

It is highlighted that global oil demand will continue to increase until 2045, driven by demand growth in Asia, Africa, and the Middle East, reaching 116 million barrels per day. From 2022 to 2045, global oil demand growth will total 16 million bpd as oil demand increases by 25.7 million bpd in non-OECD countries while decreasing by 9.3 million bpd in OECD countries. Road transport, petrochemical, and aviation sectors will lead the oil demand growth, accounting for 13 million bpd of the global growth.

On the supply side, non-OPEC oil production is expected to plateau in the early 2030s partly due to U.S. oil production peaking in the second half of the 2020s and decreasing slightly to 69.9 million bpd in 2045. As a result, OPEC's oil production will increase from 34.2 million bpd in 2022 to 46.1 million bpd in 2045 in a manner to make up for the non-OPEC decrease. OPEC's share of global oil production will increase from 34% to 40%. The WOO indicates that cumulative oil sector investment, including upstream sector investment, will be required to meet the rising demand, pointing out that it is important to secure such investment to stabilize the oil market.

In addition to the Reference Scenario, the WOO 2023 provides the Advanced Technology Scenario in which global oil demand will stabilize at slightly more than 100 million bpd around 2035 and decrease slowly towards 2045, as well as the Laissez-Faire Scenario in which global oil demand will be larger than in the Reference Scenario. Even in the Advanced Technology Scenario, however, global oil demand in 2045 will be almost the same as the current level, indicating that investment will be required to stabilize oil supply and demand.

In this way, the WOO features the expectation that global oil demand will remain steady. This may be due to the fact that OPEC has come to have a certain level of confidence in the future of oil and natural gas in light of realities in the recent international energy situation, while recognizing some uncertainties. In addition, OPEC may be sending a strong message to the world about the importance of oil and natural gas. Another important message from the WOO is that the stability of the international oil market is important not only for OPEC and other oil-producing countries but also for oil-consuming countries and the world as a whole, indicating that investment for stability should be promoted.

In today's international energy market, however, the promotion of decarbonization and energy security enhancement may drive energy transition significantly. Depending on the energy transition, the world's energy supply and demand structure may turn around. In this regard, our IEEJ Outlook 2024 compares the Reference Scenario, where oil demand will increase moderately through 2050, with the Advanced Technology Scenario, where oil demand will peak relatively earlier and decline towards 2050. I think that the comparison might have attracted much interest from OPEC.

Of course, our Advanced Technology Scenario is based on the premise of maximizing the diffusion of energy-related technologies for enhancing energy security and promoting decarbonization, projecting extremely dramatic changes. For example, internal combustion engine vehicles' share of the global passenger car fleet on stock-base, which has a significant impact on road traffic demand, is projected to plunge from 94% in 2022 to 11% in 2050 in the Advanced Technology Scenario. This dramatic change is one of the factors behind a substantial decline in oil demand. It is important to note that the maximum technology diffusion is a prerequisite for this scenario.

Other points in the IEEJ Outlook 2024 that might have been of particular interest to OPEC include the minimum-cost pathway to carbon neutrality for the Association of Southeast Asian Nations and the importance of various pathways to energy transition that are highlighted in the outlook, as well as the importance of the roles of liquefied natural gas in long-term energy transition and long-term LNG contracts' roles in promoting the LNG market and investment. In particular, I felt that OPEC might have been interested in how to minimize decarbonization costs for developing and emerging economies. I also felt that the concept of recognizing various pathways to energy transition might have been viewed as important by OPEC, which is interested in the decarbonization of fossil fuels and the significance of a carbon circular economy.

An analysis of well-to-wheel greenhouse gas emissions and critical mineral consumption regarding the electrification of vehicles, which is also highlighted in the IEEJ Outlook 2024, might have also attracted interest from OPEC. As the world becomes more fragmented and the importance of economic security increases, factors for unconventional decisions on energy choices and energy-related technology options grow more important. I felt that the issue of critical minerals has become a common important issue for energy stakeholders around the world, including OPEC.

The global energy situation is full of uncertainties. Under such circumstances, it is more important than ever to learn from each other and enhance each other's knowledge through frank, constructive discussions on energy outlooks and analyses to contribute to enhancing energy security and preventing climate change.

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