

2024 Global and Japanese Energy Outlook

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Since 2020, the international energy situation has undergone turbulence, including the enormous impact of the COVID-19 pandemic, the acceleration of the trend towards carbon neutrality, the simultaneous surge in energy prices, the destabilization of the international energy market through the Ukraine crisis, the deepening division of the world, the outbreak of the Gaza crisis, and the destabilization of the Middle Eastern situation. How will the new year 2024 be? In the following, I would like to share my views on the outlook for the global and Japanese energy situations in 2024 while referring to 13 energy market forecasts for 2024 published by the Institute of Energy Economics, Japan, on December 21 and 22 last year.

In 2024, fuel prices in the international energy market are likely to generally remain flat or decrease slightly. As for crude oil prices, the average annual price of Brent is expected to be around \$85 per barrel against \$82/bbl in 2023, fluctuating between \$75/bbl and \$95/bbl. A global economic slowdown, the stagnating Chinese economy, and an increase in U.S. crude oil production will exert downward pressure on crude oil prices, while the OPEC-plus group of oil-producing countries continues to make supply and demand adjustments to support prices. Spot liquefied natural gas prices in Asia will show a slight decline in 2024 to around \$14 per million British thermal units from around \$16/MMBtu in the previous year. The expansion of LNG supply capacity mainly in the United States is expected to help satisfy the steadily-increasing demand. The FOB export price of Australia's steam coal will decline from around \$170 per ton in 2023 to around \$130 in 2024. Import demand will remain robust in China and India while slowing down in developed countries. Supply expansion in Australia, Indonesia, and other countries will continue to help satisfy demand.

However, there are various uncertainties about future international markets, indicating that energy markets and prices may fluctuate significantly. In the crude oil market, global economic risks such as the deterioration of the Chinese economy and some disarray in the OPEC-plus group may exert strong downward pressure on prices, while there are price-boosting factors such as geopolitical risks in the Middle East. LNG prices could surge steeply depending on a demand increase amid cold waves and accidents involving LNG supply projects, while surplus supply capacity remains small. If this winter is warmer than normal with gas inventories in Europe remaining high towards spring, however, prices may plummet. Regarding coal, attention should be paid to the Chinese economic situation and such potential occasions as sluggish coal supply from Australia and Indonesia.

Among effects on overall energy price trends, the impacts of major geopolitical risks in 2024 are an important point that should not be overlooked. As the Gaza crisis continues, the human death toll and humanitarian crisis are worsening in a manner to destabilize the situation in the Middle East. So far, the Gaza crisis has had no direct or large-scale impact on oil supply from the Middle East, although Houthi attacks have forced in some cases shipping companies to reroute oil tankers from the Red Sea. However, no optimism can be warranted regarding future developments and their effects. As

the Ukraine war drags on, the outcome of the war itself and the fate of Western sanctions against Russia could have a significant influence on the energy situation. In East Asia, the economic slowdown in China, the world's largest energy consumer and importer, is a major destabilizing factor. Developments regarding the Taiwan issue are also a matter of concern. Geopolitical risks in East Asia in 2024, including the North Korea issue, cannot be underestimated.

A factor that could have significant impacts on the international situation and geopolitical issues is the outcome of the U.S. presidential election in November. The direction of domestic and foreign policies in the superpower United States will depend on whether the Democratic administration will remain in place or be replaced by a Republican administration and who will become president. The situations in the Middle East, Ukraine, Russia, and East Asia could all be greatly affected by the outcome of the U.S. presidential election. The outcome could also exert complex and great impacts on the international energy situation. The U.S. presidential election may become the most important factor that could influence the world in 2024.

The outcome of the U.S. presidential election could also have a significant impact on global climate change policy in 2024. At the 28th Conference of the Parties to the United Nations Framework Convention on Climate Change, it was confirmed that reducing global greenhouse gas emissions by 60% from 2019 in 2035 will be important for achieving the goal of limiting global warming to 1.5°C. To achieve the goal, COP28 agreed to triple renewable energy power generation capacity and double the energy efficiency improvement rate by 2030 and called for the promotion of the transition away from fossil fuels. Depending on the outcome of the U.S. presidential election, however, U.S. climate change policy could change significantly. Its impact could have non-negligible effects on global policy initiatives. As well as the U.S. presidential election, European Parliament elections scheduled for June should not be missed. The extent to which conservatives will increase their presence in the European Parliament after their recent growth could have a variety of effects on European climate change policy. These political developments in 2024 are extremely important not only for the United States and Europe but also for the entire world and must be watched closely.

Under these global circumstances, Japan's GDP will post a moderate real growth rate of 1.0% in FY2024. Its domestic primary energy supply in the year will decrease by 0.6% due to progress in energy efficiency improvement. As the restart of some nuclear power plants and an increase in solar photovoltaics capacity are coupled with a rise in coal-fired power generation capacity, Japan's LNG imports will decline below 60 million tons in FY2024. Sales of petroleum products will decrease for the third consecutive year, slipping below 60% of the peak demand in 1999. As a result, Japan's energy-related CO₂ emissions in FY2024 will decrease for the third consecutive year to 910 million tons. However, this decline is slower than the pace required to achieve the 2030 target, meaning that Japan will have to further accelerate CO₂ emission cuts to achieve the target.

In 2024, Japan is expected to begin discussions on the formulation of the next Strategic Energy Plan. The current Sixth Strategic Energy Plan, approved by the cabinet in October 2021, aims to achieve a target energy mix for 2030 to reduce GHG emissions by 46% from FY2013 and reach carbon neutrality by 2050. The Strategic Energy Plan aims to simultaneously achieve the so-called S+3Es -- safety, energy security, environmental conservation and economic efficiency -- but the timing of the cabinet approval on the current plan and the discussions at an advisory panel that preceded the approval indicate that climate change countermeasures were the most important issue for the debate of the current plan.

With regard to the next plan, however, the government will have to have comprehensive and

strategic policy discussions that respond to the new situation, including the emergence of energy security as a top priority under the Ukraine war and its impact, which came after discussion on the current plan. The new situation also features an emphasis on economic security amid the deepening division of the world. Of course, Japan will have to enhance climate change countermeasures for the next Strategic Energy Plan in consideration of the outcome of COP28 and the global situation. In order to achieve the S+3Es in the new situation, the government will have to devise and take measures to control and minimize the energy cost increase required for the S+3Es. Although Japan is required to utilize all available options such as energy efficiency improvement, renewable energy, and innovations, the current Japanese situation indicates that the utilization of existing nuclear power plants through the restart of existing plants and the extension of nuclear reactors' service life, based on safety requirements and public understanding, will be effective for reducing CO₂ emissions, improving energy self-sufficiency, and minimizing electricity costs run-ups. It will be important for the government to have robust discussions on nuclear energy policy including the position of nuclear power in 2050.

Also important for discussions on the next Strategic Energy Plan will be how to materialize the promotion of innovations that play an important role in proceeding with the energy transition, including hydrogen and ammonia, e-fuels and e-methane, CCUS (Carbon Capture Utilization and Storage), and negative emission technologies. In this regard, it will be important for the government to integrate the next plan with its industrial policy and growth strategy for Japan's future prosperity and survival towards 2050. It will also be important to take a strategic approach to envision a desirable future while recognizing and preparing for a potential discrepancy between the desirable future and reality. In addition, the preparation and deployment of a flexible, responsive international strategy for the highly important global situation, including the abovementioned U.S. presidential election, will also be important for the formulation of the next plan.

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