

Summary of Press Conference Comments Made by Kazuhiro Ikebe, FEPC  
Chairman on November 17, 2023

I am Kazuhiro Ikebe, Chairman of the Federation of Electric Power Companies (FEPC).

Today, I'd like to talk about three topics: 1) the supply and demand of electricity this winter and the efficient use of electricity, 2) discussions on future electricity supply and demand, and 3) COP28 and carbon neutrality initiatives.

<1. Supply and demand of electricity this winter and the efficient use of electricity>

I first want to talk about the supply and demand of electricity this winter and the efficient use of electricity.

On October 31, the Strategic Subcommittee summarized the measures to balance electricity supply and demand for the winter of this fiscal year. The reserve margin for the Hokkaido, Tohoku, and Tokyo areas for January and February is in the 5% range. This is no cause for optimism, however, considering the potential for demand increases due to fluctuations in weather or temperature, supply capacity could also decline due to unplanned electrical facilities outages and decreases in solar power generation output from fallen snow, and fuel supply breaking down due to situation in Ukraine and the Middle East deteriorating.

We as electric utilities will do our best to maintain stable supply on both the supply and demand side—we will continue to perform appropriate equipment maintenance and secure fuel closely on the supply side, encourage customers to use the reward systems and the various plans operators are offering and call for the efficient use of energy on the demand side. We ask that the public, as users of electricity, try to use energy efficiently.

In addition, the GX Basic Policy and new economic measures proposed assistance measures to further increase the energy efficiency of homes by having them install high-efficiency water heaters that use heat pumps, renovate the houses to save energy, and install insulating windows. Such equipment and renovations will not only lead to sustainable energy savings but also reduce the household's energy bill, and could be very beneficial for customers. These government assistance measures are part of the FY2023 supplementary budget to be deliberated soon. We hope that customers will consider implementing them in their own home.

<2. Discussions on future electricity supply and demand>

Next, I will talk about discussions on future electricity supply and demand.

Securing not only short-term stable supply but balancing supply and demand in the mid-to-long term is a critical challenge that we must overcome. On November 7, the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) launched the Review Committee on Future Electricity Supply and Demand Scenarios. In this inaugural meeting, the Committee went over the electricity supply and demand scenarios for 2040 and 2050 from diverse perspectives, to achieve carbon neutrality in 2050.

As we have explained in previous press conferences, long-term electricity demand forecasts, which serve as the foundation for all plans, are critical for planning future investment into power sources and planning fuel procurement. Though the Committee has yet to develop these supply and demand scenarios in detail, future electricity demand is expected to grow significantly: electrification rates will need to be increased up as we work to achieve GX, many data centers that consume large amounts of electricity will be constructed to address the shift toward even more digitalization, and AI and EVs will continue to spread.

Analyses of electricity supply and demand forecasts for 2050 published by various institutions show that electricity demand which was around 1 trillion kWh in FY2020 could grow to around 1.3 trillion to 1.6 trillion kWh by 2050. The electrification rate is also expected to rise to around 40% to 50%, also pointing toward significant growth in electricity demand.

Turning to supply capacity, thermal power plants are currently expected to be phased out. Meanwhile, lead times for building new electricity assets are considerable. To secure the necessary supply capacity and balancing capacity for stable supply and to achieve carbon neutrality as electricity demand continues to grow, existing power plants will need to be decarbonized and new power plants will need to be built in a planned manner with the time to completion in mind.

Though there are effective measures that can be implemented on the demand side, such as smoothing the load curve by promoting demand response and pursuing electricity consumption patterns that are even more efficient, generating and delivering enough electricity to support the people's daily lives and industry on the supply side is critical to ensuring the growth and development of Japan.

Quantitatively measuring future electricity demand and thinking about electricity supply and demand balance in the long term are crucial for ensuring stable supply and the starting point for thinking about the energy mix.

In addition, to secure supply capacity in the mid-to-long term, even in this liberalized electricity market, a business environment where operators can invest in the construction of new plants with some level of predictability of future cash flow needs to be created. The design of such electricity systems is also key for the future of electricity. As operators responsible for actual operations, we will cooperate as much as possible in government discussions.

### <3. COP28 and carbon neutrality initiatives>

The third topic I'd like to address is COP28 which will be held in Dubai in the United Arab Emirates starting at the end of the month. I will also touch on the electricity utilities' carbon neutrality initiatives.

The main theme for this COP is Global Stocktake. Global stocktake is an assessment of the progress the world has made toward the Paris Agreement's long-term stretch goal of keeping the increase in global average temperature to 1.5 °C, by taking stock of progress around the globe in nationally determined contributions (NDCs), or the targets for greenhouse gas emission reductions determined by each country. The reports on global initiatives published by international institutions and the progress made in climate change measures as measured by technical assessments since 2021 will be made clear through the global stocktake.

We understand that each country will be taking various approaches in implementing climate change measures in line with the circumstances of that country toward the goal that they've each set. We hope that the discussions in this COP will lead to effective measures being implemented to achieve long-term targets across the globe.

To achieve carbon neutrality, it is important for us as electricity utilities first on the supply side to increase the percentage of non-fossil fuel power sources by deploying renewable power sources and maximal use of nuclear power. For nuclear power especially, all options that may help with the sustainable use of nuclear power generation such as measures to use existing power plants longer, replacing, building and expanding power plants need to be pursued.

For thermal power generation, we will also maintain necessary power sources to maintain stable supply while phasing out inefficient thermal power plants, and will also invest necessary resources in the development of new technologies such as

hydrogen, ammonia, and CCUS. At the same time, because the decarbonization of thermal power generation will lead to increases in electricity cost in the short term, we also look forward to assistance measures funded in part by the GX economy transition bonds to aid us during the demonstration and application stages of new decarbonized fuel. Japan's thermal power plants are extremely efficient. Using these technologies in Asia and across the globe can lead to concrete CO2 reductions on a global scale and we as utilities with know-how on operating power plants, will also aim to contribute to addressing climate change with a global perspective.

To pair with these supply-side measures, on the demand side, electrification must be advanced in all sectors of the economy by accelerating the deployment of heat pumps that use atmospheric heat, among others to use energy efficiently. As electricity utilities, we will continue to advance efforts to realize carbon neutrality in 2050 on both the demand and supply sides.

This concludes my remarks for today.

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