Summary of Press Conference Comments Made by Kingo Hayashi, FEPC Chairman on May 16, 2025

I am Kingo Hayashi of the Federation of Electric Power Companies of Japan.

I want to discuss two topics today: 1) renewable power output control and the use of renewables, and 2) challenges with the Long-term Decarbonized Power Sources Auction and revisions to be made.

First, I want to talk about output control and the use of renewables.

Japan has been actively expanding renewable energy becoming the country with the largest capacity of solar power installed per area of flat land. This has necessitated output control in various areas. Output control is especially important during the May holidays (i.e., Golden Week) and other times when demand falls.

To begin with, output control is a mechanism implemented to expand the deployment of renewables as much as possible at an accelerated pace.

With solar power for example, the amount of capacity connected to the grid can be increased with the use of output control which allows more electricity to be generated. This is the reason for having output control.

An estimate of output control used across Japan based on the figures published by each utility shows that approximately 1.8% of output control was conducted in FY2023.

In Europe, where renewables are widely adopted, output control is commonly used to maintain stable supply and to expand the deployment of renewables. As of FY2022, the percentage for Germany and United Kingdom was around 3% and the percentage for Ireland and Denmark, which are more heavily reliant on wind power, exceeded 7 to 8%.

In resource-poor Japan, minimizing output control is crucial for maximizing the utilization of renewable energy.

Currently, the national government is developing a cross regional grid master plan as part of measures to expand the deployment of renewables. At the same time, there are verifications ongoing from a cost-benefit (B/C) perspective. Though storage batteries for the grid have begun to be deployed, there currently are challenges in the amount of capacity it can handle and in cost.

In this environment, operators are implementing measures for minimizing output control on the generating side according to the priority power supply rules stipulated by the government.

To reduce the amount by which output from renewables has to be reduced, we are working to reduce the minimum output for thermal power plants from 50% to 30% in order to maximally reduce the output from thermal power. This also creates a problem in securing power sources, of how to maintain facilities as availability falls.

On the demand side, we are also implementing demand-response through the use of EcoCute as I talked about in the last press conference.

Operators are actively working to maximally utilize renewable power by introducing rate plans that encourages demand to shift and expanding services.

We will continue to pursue a variety of measures to maximally utilize renewable power in order to secure stable supply while achieving carbon neutrality by 2050.

Next, I want to address the Long-term Decarbonized Power Sources Auction.

To secure stable supply in the future and to achieve carbon neutrality in the same time, investment return predictability in the power generation business is critical.

Currently, the Long-term Decarbonized Power Sources Auction is serving the role of securing predictability for new power sources.

As we've mentioned previously, OCCTO announced the results of the 2nd auction with many operators making bids. This made us recognize again that this auction has grown to become an important mechanism for securing decarbonized power sources.

Looking at the results of this 2nd auction, successful bids were made on existing nuclear power plants for which safety measures have been implemented, which had been added to the list of power sources in this round. Utilizing existing nuclear power plants is extremely important in balancing a stable supply of electricity with carbon neutrality, and it is very meaningful that nuclear power at some scales were successfully auctioned off under the improved mechanism.

To further increase the efficacy of this system, I also want to touch on our understanding of the challenges of the auction from the perspective of operators. As I've mentioned before, predictability around return on investments has improved significantly with the establishment of this auction. However, there is still room for improvement considering the need to secure sustainable investment into a diverse set of decarbonized power sources and to address the uncertainty that comes with a long business operating period.

As operators, we see a few challenges and several solutions. The first challenge involves the procurement method. The bid quantity for LNG-fired dedicated thermal power did not meet the procurement target in this auction. To secure diverse decarbonized power sources and balancing capacity, procurement targets need to be set for each type of power source.

The second challenge is addressing the risk of being unable to collect fixed costs. Under the current system, there is no mechanism to accommodate fluctuations in costs

such as increases in material prices after a successful bid or the need to invest in additional safety measures to backfit nuclear power plants. To maintain a stable power source, there needs to be a mechanism to accommodate unexpected and unavoidable increases in fixed costs.

The third challenge is securing cashflow in the construction stage. Power sources with long construction lead times require a lot of cash investment beforehand. Payment of the capacity guarantee deposit beforehand and other mechanisms to collect return on investment from the construction stage will lead to sustainable investments in power sources.

The fourth and fifth challenges have to do with the maximum bidding price and business revenue. The maximum bidding price of many power sources in the previous auctions and in this auction consistently hovered close to the threshold of 100,000 yen. We believe maximum bidding prices need to be set considering current costs, including hydrogen and ammonia, and business revenue caps need to be set taking into account the risks associated with different types of power sources.

We are aware that the government is discussing revising the system to account for many of these challenges for the third round, but they have not yet considered revising the price competitive bidding for mixed power sources as a solution to the first challenge, controlling the risk of fixed costs exceeding estimates after a bid for the second challenge, assisting in securing cash in the construction phase for the third challenge.

To secure a stable supply of electricity in the future, financing for initial investments into these power sources needs to be facilitated in addition to revising the terms of this auction. There also needs to be discussion of systems and measures to maintain existing thermal power plants at a certain scale even as their availability falls.

We must secure stable power sources to sustain industries as well as the livelihoods of the public and maintain our national strength. The government is aware of the challenges I've raised here today. The challenges were included in the government's summary of the electricity system reform verification, but I believe these discussions need to be accelerated. We, as utilities who carry out the work on the ground, will continue to cooperate with these discussions as much as possible.

This concludes my remarks for today.

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