

Summary of Press Conference Comments Made by Kingo Hayashi, FEPC Chairman
on July 19, 2024

I am Kingo Hayashi, Chairman of the Federation of Electric Power Companies (FEPC).

First, before we start, I want to briefly touch on the state of recent electricity supply and demand.

As temperatures rose across the country from late June to early July even before Japan fully entered summer, electricity demand grew in the Tokyo, Kansai, and Tohoku areas, tightening electricity supply and demand. Under the direction of the Organization for Cross-regional Coordination of Transmission Operators (OCCTO), utilities secured additional supply capacity by over powering thermal power plants, conducting power interchange between areas and other measures, and were able to achieve stable supply. We apologize to the public for causing concern.

As we head into the height of summer, we the generation and retail sides as well as the network side will each fulfill our role in an effort to maintain stable supply. We ask the public for their cooperation in using electricity efficiently when possible, without endangering your health.

I want to talk about two topics in this press conference: 1) recommendations for advancing the adoption of heat pumps for electrification, 2) our efforts to increase nuclear power plant safety based on the lessons learned from the Noto Peninsula Earthquake.

First is our recommendations for advancing the adoption of heat pumps for electrification.

In the May press conference, I talked about electrification as a demand side measure in the revision of the Strategic Energy Plan. The heat pump is the trump card for electrification.

The heat pump is a system that pumps up thermal energy, a type of renewable energy, which exists in the natural world in air conditioning, water heating and production processes in households, commercial buildings and plants. It is very energy efficient and can help reduce CO2 emissions. In addition, it is gaining traction as a technology that can aid in effectively utilizing and driving the spread of renewable power sources through its role in demand response (“DR”) to reduce curtailment of renewable energy.

According to estimates from the Heat Pump & Thermal Storage Technology center of Japan (HPTCJ), as of FY2022, there were around 7.5 million household water heaters in stock, around 46 thousand commercial water heaters and 350 MW of equipment capacity in the industrial heating sector. The scenario for achieving carbon neutrality by 2050 projects household water heaters to be as 5 times as prevalent, commercial water heaters as 20 times, and capacity for the industrial heating sector to be as 300 times as large.

If projections hold, heat pumps are expected to reduce CO2 emissions by over 100 million tons per year compared to FY2020. This would account for approximately 11% of the 967 million tons of CO2 emissions from energy recorded in 2020. Heat pumps, which have the potential to play a pivotal role in reducing CO2 emissions, are rapidly spreading in the EU and across the world.

At the same time, there are many hurdles that need to be overcome to further advance adoption. We are going to focus on the following 6 challenges. These are our recommendations for addressing these 6 challenges.

The first is clarifying the role of heat pumps in policy. In the next Strategic Energy Plan that is currently being drafted, we ask that atmospheric heat be clearly established as a renewable energy and that the deployment of heat pumps be clearly established as a priority measure on the demand side.

The second recommendation is the expansion of subsidies. Heat pumps are being adopted at an accelerated pace overseas due to robust support, with subsidies covering half to the full cost of deployment. We believe that subsidies on par with overseas countries and tax incentives for manufacturers could be the push needed to further encourage adoption.

The third recommendation is about providing technical assistance to manufacturers and the fourth is about securing and developing contractor talent. Examples include developing smaller heat pumps for existing apartments with limited space, expanding the range of temperatures that industrial heat pumps can operate in, and developing talent who can develop production processes.

The fifth recommendation is the use of DR. For customers to fully appreciate the value of adopting heat pumps, features such as boiling time control, connectivity with other devices, and other incentives for adoption need to be developed. Collaboration between manufacturers and retail electricity operators are essential to achieve this.

To realize these recommendations, the government must clearly define the position of heat pumps in its policies, and manufactures, contractors, financial institutions, retail operators and other parties associated must perform their roles and come together crossing industry boundaries.

The FEPC will continue to actively promote the use of heat pumps in preparation for the development of the next Strategic Energy Plan, continue to communicate the importance of heat pumps to the public to increase awareness, and engage retail operators on using DR.

The second topic today is our efforts to increase nuclear power plant safety based on the lessons learned from the Noto Peninsula Earthquake.

In February of this year, we established a framework with utilities, Atomic Energy Association (ATENA) and manufacturers to verify the issue. We have been working on it since and published the verification results two days ago.

We have already communicated the insights gained from this verification to Hokuriku EPCO, and have started to implement countermeasures. Other nuclear operators have also been tasked to address issues as necessary and improve safety.

As nuclear operators, we will continue to share the most up-to-date information on matters that should be reflected onto the seismic safety evaluation and items that may affect existing operation rules to inform safety measures discussions. In cooperation with related organization such as ATENA, Japan Nuclear Safety Institute (JANSI), and the Nuclear Risk Research Center (NRRC) in the Central Research Institute of Electric Power Industry (CRIEPI), we will come together as an industry to advance efforts to secure a higher level of safety.

Regarding evacuation plans which have been a topic of public concern, the Nuclear Regulation Authority (“NRA”) is developing guidelines for sheltering indoors. In the June meeting, the NRA discussed the effectiveness of indoor sheltering and the criteria for determining when to switch to evacuation. Preparing for indoor sheltering and developing an evacuation plan, created by each municipality considering the unique geographical traits and resources available to the region, are critical for providing a sense of security to the local residents. As operators, we will continue to cooperate as much as possible by deploying welfare vehicles, sending staff for emergency monitoring and screening, and providing resources to improve the

effectiveness of evacuation plans.

This concludes my remarks for today.

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