

## **Basic Approach to the Recommencement of Operation and Decommissioning of the Kashiwazaki-Kariwa Nuclear Power Station**

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In June 2017, Tokyo Electric Power Company Holdings, Inc. (TEPCO HD) was required by Kashiwazaki City Mayor Sakurai to present a decommissioning plan for Units 1~5 within two years as a precondition for approving the recommencement of operation of Kashiwazaki-Kariwa Nuclear Power Station Units 6 and 7. Thereafter, Mayor Sakurai offered his opinions, which are vital to the operation of nuclear power stations in the region, such as that the residents and local governments of neighboring communities have concern over the fact that there are seven nuclear power stations in the area, and that presenting clear plans for the recommencement of operation and decommissioning is necessary to ensure safety and peace of mind.

In light of these requests and opinions, TEPCO HD has deliberated a future power mix that must be attained to enable TEPCO HD to fulfill its social responsibilities amidst a greatly fluctuating business environment. Today, in response to the request from the mayor, TEPCO HD has presented the following basic policy on the recommencement of operation and decommissioning of the Kashiwazaki-Kariwa Nuclear Power Station.

### **1. Future power mix**

With the decreasing population in Japan, increased competition between operators, the spread of dispersed power sources, in particular, renewable energy sources, and the global trend towards decarbonization, the business environment surrounding the energy industry is predicted to see major changes in the future. In order for TEPCO HD to accomplish its fundamental mission as an electric utility in natural resource-deprived Japan, or in other words, to provide a stable, inexpensive, and low-CO<sub>2</sub> emissions source of energy to the customer, we must leverage diverse energy sources to form a power mix that ensures stability, is economically feasible, and conserves the environment, while prioritizing safety.

When deliberating this power mix, we comprehensively examined the impact that various changes in the business environment, such as future power demand and fuel

cost predictions, trends in environmental regulations related to CO2 emissions, and forecasts for the spread of renewable energies, will have while also considering the progress of the safety measures and inspections to confirm compliance with the New Regulatory Requirements at TEPCO nuclear power plants, securing capital and personnel required for nuclear power generation, and also the country's Basic Energy Plan.

In particular, amidst the global trend towards decarbonization, Japan has set a high goal for reducing greenhouse gas emissions by 26% of 2013 levels by the year 2030, and 80% reductions by 2050, and is proactively promoting the use of renewable energies in order to achieve these goals. The fifth revision of the Basic Energy Plan calls for non-fossil fuel power sources to account for approximately 40% of energy production by the year 2030, and cites the use of nuclear power and renewable energies, such as solar, wind, hydroelectric, and geothermal power, to achieve this goal.

In order to achieve this objective, TEPCO HD also believes that in addition to further promoting the use of renewable energies it will also be necessary to leverage nuclear power into the future. Within the next 10 years, TEPCO HD seeks to develop 2~3 million kW of renewable energy that centers on wind power, and recommence the operation of nuclear power plants with the intention of leveraging them to the fullest. The current state of initiatives aimed at securing these power sources is as follows:

- ✓ In regards to renewable energies, TEPCO is focusing on offshore wind power and is currently looking at locations off the coast of Choshi to develop its first large-scale offshore wind farm. In accordance with the law on the use of ocean areas for renewable energy sources, this area shall be designated as an offshore wind power promotion zone and a public offering shall be made to use this zone after which a developer shall be selected and the area will become the first development zone of its kind in Japan. With this process in mind, we are preparing for the development of such facilities off the coast of Choshi.
  
- ✓ In regards to Kashiwazaki-Kariwa Nuclear Power Station Units 6 and 7, safety measures at Unit 7 will be completed by December 2020, and we are currently

eagerly working on obtaining New Regulatory Requirement approval and focusing on safety measures.

- ✓ At Kashiwazaki-Kariwa Nuclear Power Station Units 1~5, we are examining compliance with the New Regulatory Requirements based upon the content of inspections of Units 6 and 7.
- ✓ In regards to Higashidori Nuclear Power Station Unit 1 we are moving forward with geological surveys in order to further improve safety as we aim to form a basic framework of cooperation with other operators by FY2020.
- ✓ We are engaged in initiatives related to safety inspections and safety measures at nuclear power plants owned by other companies from which TEPCO receives electricity.

We are moving steadily forward with these initiatives in order to provide inexpensive, and low CO2 emission electricity to customers in a stable manner, but at current time we are unable to predict when these projects will become commercially feasible and when we will be able to use them to start providing power. In regards to TEPCO HD's power mix, we believe that we must make decisions based upon the latest conditions and developments that affect this issue.

## **2. Decision-making process related to the recommencement of operation and decommissioning**

The largest preconditions for the recommencement of operation of nuclear power stations are the quick dissemination of information about troubles, etc., at the power station on a daily basis, and the utmost cooperation with Niigata Prefecture's three investigation committees, which are efforts that will lead to the safety and peace of mind of the local residents and foster understanding. In order to do this, we must achieve the following two objectives.

### **1. Prove that safety is being ensured**

We shall ensure power station safety by performing detailed technical examinations in accordance with the New Regulatory Requirements and

implementing countermeasures. Furthermore, we shall fulfill our role as an operator in order to improve the effectiveness of evacuation plans during a nuclear disaster.

2. Providing a stable and inexpensive source of electricity

We shall guarantee that we can provide a stable and inexpensive source of electricity to customers by maintaining competitive superiority over other power sources and maintaining reliability as a long-term and stable power source based upon assessments of the latest trends, such as fuel costs and environmental regulations.

Plants that are not deemed viable as a result of the aforementioned decision-making process shall be subject to decommissioning.

**3. Predictions on when the decision was made to either recommence operation or decommission Kashiwazaki-Kariwa Nuclear Power Station Units 1~5**

As mentioned in “1. Future power mix,” we are eagerly moving forward with the development of offshore wind power facilities off the coast of Choshi and safety measures at Kashiwazaki-Kariwa Nuclear Power Station Units 6 and 7, but at current time we cannot predict when we will be able to secure non-fossil fuel power sources of sufficient scale for long-term use. Therefore, TEPCO believes that at current time Kashiwazaki-Kariwa Nuclear Power Station Units 1~5 are necessary for providing a stable supply of inexpensive, low CO2 electricity.

Meanwhile, at the point in time that we can predict when we will be able to secure non-fossil fuel power sources of sufficient scale, we shall take steps, which include decommissioning of one or more of Units 1~5 as option, within five years after the recommencement of operation of Units 6 and 7, which will be done upon receiving the go-ahead from the regional community.

We will continue our initiatives based upon this basic approach and brief the mayor on progress and changing circumstances during regularly scheduled opinion exchanges while also listening to his opinions and requests.

In accordance with our Niigata Headquarters Action Plan announced in March of last year, TEPCO HD will continue to operate the Kashiwazaki-Kariwa Nuclear Power Station while prioritizing safety and earnestly responding to the opinions and questions

of the local community. In particular, we will be sure to address the concerns of the residents about “concentrated siting.” And, in order to make the city’s “Kashiwazaki City Regional Energy Vision” a reality, we shall go beyond our nuclear power business and leverage the knowledge that we have accumulated as an electric utility as we strive together to achieve a “prosperous and sustainable community.”