Summary of Comments Made at a Press Conference by Shosuke Mori, FEPC Chairman, on November 11, 2009

Today I will talk about two subjects: "Total Shipment of Eco-Cute Electric Water Heaters Exceeds 2 Million Units" and "Forecast for Electric Power Supply and Demand for the Coming Winter."

1. Total Shipment of Eco Cute Residential Water Heater Systems Exceeds 2 Million Units

Last week the United Nations Ad Hoc Working Group on climate change met in Barcelona, Spain, and conducted negotiations on the post-Kyoto framework to be discussed at the 15<sup>th</sup> Conference of the Parties to the U.N. Framework Convention on Climate Change, commonly known as COP15, which will start on December 7.

According to news reports, there are still major differences in opinion between developed and developing countries, so COP15 will find it difficult to reach full agreement.

A plan for postponing the decision and reaching a political agreement solely on fundamental issues may be considered but we expect the Japanese government not to agree to an easy compromise of simply extending the Kyoto Protocol, but to drive the negotiations toward agreeing on an equitable and viable framework.

In Japan, meanwhile, a study team was set up to accomplish the medium-term goal of reducing greenhouse gas emissions by 25% from 1990 levels by the year 2020. The team is now analyzing the various hurdles to achieving this goal, such as the burden that people may have to shoulder.

In order to help accomplish this goal by 2020, the Japanese electric power industry is doing its utmost on the supply side, such as constructing additional nuclear power plants, improving the capacity factor of existing plants, and encouraging the use of renewable energy systems such as mega solar power systems, by setting a target of raising the share of non-fossil energy sources to 50%, while spreading the use of high-efficiency equipment such as heat pumps and electric vehicles on the demand side.

As a result of these efforts, the total shipment of Eco Cute water heaters, which are our key measure on the demand side, exceeded 2 million units at the end of the previous month.

As you know, the Eco Cute water heater is Japan's state-of-the-art energy-saving technology that uses heat pump technology to produce three or four times as much thermal energy as electric energy consumed. The energy-efficient water heater system was launched eight years ago.

In addition to the increased visibility of the product, a space-saving type for small-family households and a multifunction type that can be used for floor heating have been newly developed. As a result, the number of Eco Cute systems shipped, which exceeded one million units in September 2007, rose another million units in just two years.

The reduction in  $CO_2$  emissions thanks to two million Eco Cute water heaters is estimated to be about 1.4 million tons, which is equivalent to the amount absorbed by a forest as large as Aomori Prefecture.

Heat in the air used by heat pumps is treated as a renewable energy source similar to solar light and wind power in the "Law on the Promotion of the Use of Nonfossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers", which became effective in August this year.

We will continue to effectively publicize the high energy conservation performance and environmental acceptability of the Eco Cute water heater system in cooperation with the Japan Refrigeration and Air Conditioning Industry Association and the Heat Pump and Thermal Storage Technology Center of Japan. Our aim is to ship 10 million units by 2020.

The Japanese electric power industry is also conducting R&D on applying heat pump technology in the manufacturing industry which consumes large amounts of heat and developing more efficient systems to expand the range of applications of the technology.

The Kansai Electric Power Company developed the world's first industrial heat pump-based electric hot air generator that can produce air as hot as 120°C, in collaboration with Mayekawa Mfg. Co., Ltd., a firm that has outstanding technologies in heat pumps. The newly developed hot air generator was released in October.

For many manufacturing industries, including the food industry, drying processes are indispensable. Currently, most manufacturers use heating systems fueled by fossil energy sources, such as steam boilers.

However, our new product eliminates the need for peripheral facilities such as fuel feeders and exhaust systems, which are required by boiler type heating systems, and more importantly, enables firms to reduce running costs by 40% and  $CO_2$  emissions by a remarkable 70%.

It is interesting to note that heat pumps can produce not only hot air but also cool thermal energy. This means that high-temperature thermal energy can be used for drying processes, while cool thermal energy can be used for cooling processes at factories and for air-conditioning.

Meanwhile, Tokyo Electric Power Company developed the Eco Cute system that combines its original function and a solar system to make use of solar heat, and the company will release it in February 2010. This new system helps cut  $CO_2$  emissions by up to 70%.

If all air conditioners and water heaters in the residential sector and heating and drying processes in industry were to be replaced by heat pumps, up to 130 million tons of CO<sub>2</sub> emissions could be reduced, which is ten percent of Japan's gross CO<sub>2</sub> emissions.

The Japanese electric power industry will promote joint public-private R&D on more efficient next-generation heat pump systems, and focus on energy conservation and low carbon initiatives not only for the residential sector but also for industry.

2. Forecast for Electric Power Supply and Demand for the Coming Winter

Let me now report on our forecast for electricity supply and demand for the coming winter.

The Meteorological Agency forecasts that temperatures this winter will tend to be higher than or near those of the average year.

We therefore forecast that the ten electric power companies' combined maximum demand this winter will be 158.57 million kilowatts. We will be able to secure the corresponding supply capacity of around 186.67 million kilowatts, giving a supply margin of approximately 18%.

Last winter the ten electric power companies' combined maximum demand fell by 6.6% from the previous year due, in part, to a decrease in heating demand, as well as to the net effects of production adjustment amid the economic downturn.

Today we announced the amounts of electricity generated and received in October. But electricity demand is recovering only slowly, and so we do not expect high demand for power this winter.

Although we will be able to secure a steady supply of electric energy, there is no guarantee that contingencies such as disasters or unexpected accidents at power plants or elsewhere will not occur.

Furthermore, according to past data, if the winter is colder than expected, a mere 1°C drop in temperature may increase the nation's electricity demand by around 1.55 million kilowatts, which exceeds the power output of one large nuclear reactor.

Our industry will work in close cooperation with one another and do everything possible to secure a stable supply of electric energy.

This concludes my remarks.