

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

This is the first press conference for two months because there was none in August.

Today I would like to speak on the follow-up of the electric utility industry's environmental action plan before reporting on the electricity supply and demand during this summer.

1. Follow-up of the Environmental Action Plan by the Japanese Electric Utility Industry

First, I would like to speak on the follow-up of the electric power industry's environmental action plan.

This environmental action plan consists of the policies and plans for actions by the electric power industry to prevent global warming and help create a recycling-based society. This not only forms a part of the Keidanren Voluntary Action Plan on the Environment, but also is acknowledged by the Kyoto Protocol Target Achievement Plan of the government.

The environmental action plan is reviewed each year in respect of achievements and trends in Japan and overseas. Today we publish the 12th revision of the Environmental Action Plan by the Japanese Electric Utility Industry.

The electric power industry of Japan is taking various actions to meet the announced target of reducing the CO<sub>2</sub> emission intensity in fiscal 2008 through 2012 by about 20% on average from the FY1990 level (0.417 kg-CO<sub>2</sub>/kWh) to about 0.34 kg-CO<sub>2</sub>/kWh.

As a highlight in the present review, we have now calculated the CO<sub>2</sub> emission intensity in FY2008, the first year of the Kyoto Protocol First Commitment Period, in which we could reflect carbon credits from the Kyoto Mechanism according to the amended Law Concerning the Promotion of Measures to Cope with Global Warming.

According to this calculation, the CO<sub>2</sub> emission intensity in FY2008 was 0.373 kg-CO<sub>2</sub>/kWh, which is less than the previous year by 0.080 kg-CO<sub>2</sub>/kWh (17.7%), and less than the reference year (FY1990) by 0.044 kg-CO<sub>2</sub>/kWh (10.6%).

Major contributors to the lower emission intensity include a slight increase in the shares of nuclear power and hydro electric power in the total generation mix, resulting from the reduction in electricity demand due to economic recession, even though the nuclear power plant capacity factor remained as low as in the previous year (60.0%) because of the protracted shutdown of the Kashiwazaki Kariwa Nuclear Power Plants of Tokyo Electric Power. Another factor was the carbon credits from the Kyoto Mechanism earned by the electric power utility industry for contributing savings of about 64 million tons of CO<sub>2</sub>. The carbon credits, following transfer to the account controlled by the government, were accounted for in the calculation of emission intensity.

Without factoring in the carbon credits, the CO<sub>2</sub> emission intensity would have been 0.444 kg-CO<sub>2</sub>/kWh. If there had been no protracted shutdown at the Kashiwazaki Kariwa and some other plants, the emission intensity in 2008 would have been roughly equivalent to 0.373 kg-CO<sub>2</sub>/kWh, which was the emission intensity in FY2008 before factoring in the credits.

As to the outlook for emission intensity over the five years, it remains unclear because the operation schedule for the entire Kashiwazaki Kariwa plant is still unknown.

Nevertheless, we are making steady progress such as promoting nuclear power with emphasis on safety, improving the thermal efficiency of fossil-fired plants, and steadily developing and disseminating renewable energy sources. In addition, the electric power industry expects to obtain, by 2012, carbon credits from the Kyoto Mechanism for contributing to the saving of 0.25 billion tons of CO<sub>2</sub>, which is about 60 million tons larger than the estimate made last year (0.19 billion tons of CO<sub>2</sub>)

With such efforts, the electric power industry of Japan is working hard on achieving the goal.

International discussions over the post-Kyoto framework have intensified as

COP15 at the end of this year approaches. On September 22, a UN Summit on Climate Change will be held in New York.

In anticipation of the UN Summit, Hatoyama, the leader of the Democratic Party of Japan (DPJ), announced earlier this week that, provided all major countries participate in the discussion and agree on an ambitious goal, Japan will aim to achieve, by 2020, a 25% reduction of GHG emissions from the 1990 level.

Mitigation of global warming is a global challenge. The pursuit of a high goal only by Japan, which contributes to only 4% of global GHG emissions, will not prevent the Climate Change.

As mentioned by Hatoyama, “the participation of all major countries and their agreement on an ambitious goal should be the conditions for Japan’s commitment to the international community”, Japan government should emphasize this key point as it conducts international negotiations.

It should also be noted from the Democratic Party of Japan (DPJ) that no realistic roadmap has been prepared yet for achieving the 25% reduction from the 1990 level. The government will need to gain public consensus after examining whether the goal is reasonable and feasible. This should be judged in consideration of the time required for technological development and appliance deployment, and on the impacts on welfare and the economy. It should also be considered whether this burden would be acceptable to the people of Japan, which is already the world’s most energy efficient country.

## 2. Electricity Supply and Demand in This Summer

Next, I would like to comment briefly on the electricity supply and demand this summer.

Both the peak demand and the maximum daily demand have been much lower than last year as the demand from large industrial customers fell significantly due to economic recession, and also because of the cool summer.

This is all for today. Thank you for your kind attention.

September 11, 2009

FEPC

## **Follow-up of the Environmental Action Plan by the Japanese Electric Utility Industry**

### **1. Significance of the Environmental Action Plan by the Japanese Electric Utility Industry**

The electric utility industry's environmental action plan outlines the industry's policies and plans concerning the mitigation of global warming, creation of a recycling-based society, control of chemical substances, etc. The action plan is reviewed each year based on achievements and prevailing trends in Japan and overseas. (Today we publish the 12th revision of the Environmental Action Plan by the Japanese Electric Utility Industry.)

Since June 1997, the electric utility industry's action plan for mitigating global warming is a part of the Keidanren Voluntary Action Plan on the Environment. The electric utility industry's action plan is also acknowledged in the government's Kyoto Protocol Target Achievement Plan. The industry's action plan for creating a recycling-based society has been integrated into the government's Basic Plan for Establishing a Recycling-based Society, which was established based on the Basic Law for Establishing the Recycling-based Society.

### **2. Measures to Mitigating Climate Change**

#### **CO<sub>2</sub> emission suppression target**

<p>From fiscal 2008 to fiscal 2012, we aim to further reduce CO<sub>2</sub> emissions intensity (emissions per unit of user-end electricity) by an average of approximately 20% about 0.34 kg-CO<sub>2</sub>/kWh from the fiscal 1990 level. electric utility industry</p>
--

## CO<sub>2</sub> Emissions in FY2008

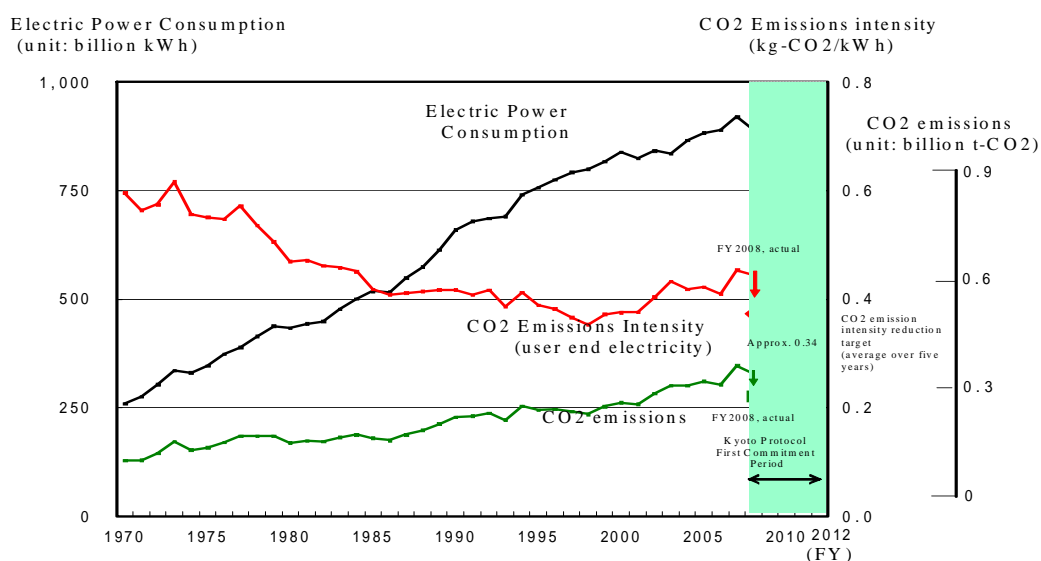
Now that Kyoto Protocol First Commitment Period (FY2008-2012) has started, the carbon credits that the electric utility companies have acquired according to the Kyoto Mechanism and transferred to the government holding account, can be reflected to the calculation of CO<sub>2</sub> emission intensity. For FY2008, the carbon credits acquired by the entire electric utility industry of Japan and reflected to the calculation amounted to about 64 million t-CO<sub>2</sub>.

With these carbon credits, the consumer-end CO<sub>2</sub> emissions intensity in FY2008 was calculated as 0.373 kg-CO<sub>2</sub>/kWh. This value is 0.080 kg-CO<sub>2</sub>/kWh (17.7%) less than the previous year, and 10.6% less than FY1990.

Item \ Year	FY1990 (actual)	FY2007 (actual)	FY2008 (actual)	FY2008-2012 (average over five years)
Electric power consumption (unit: billion kWh)	659	920	889	907 (forecast)
CO <sub>2</sub> emissions (unit: million t-CO <sub>2</sub> )	275	417	332 [395]	N.A. (forecast)
CO <sub>2</sub> emissions intensity (user end electricity) (unit: kg-CO <sub>2</sub> /kWh)	0.417	0.453	0.373 [0.444]	N.A. (forecast)

Note: Bracketed values are CO<sub>2</sub> emissions and CO<sub>2</sub> emissions intensity before factoring in the carbon credits.

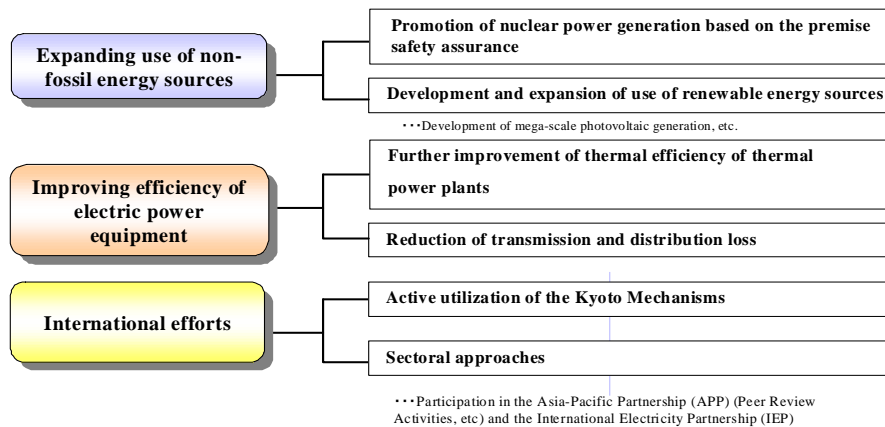
Figure: Trends in CO<sub>2</sub> emissions, etc. by the electric utility industry



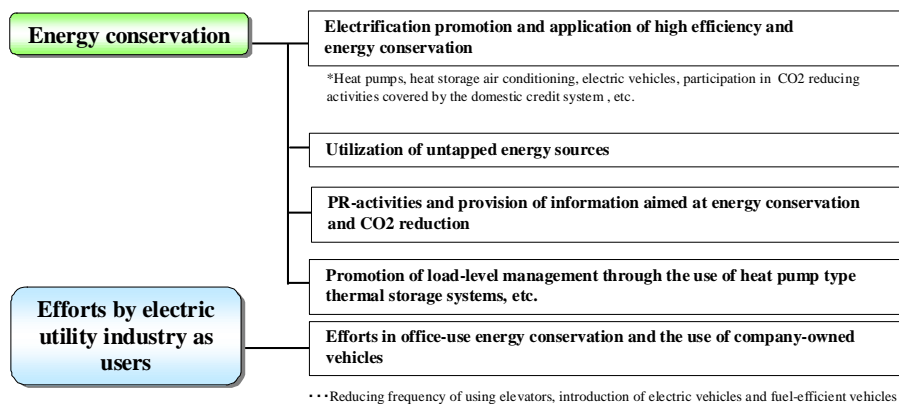
## CO<sub>2</sub> Emissions Suppression Measures

The industry is striving to meet the CO<sub>2</sub> emission intensity reduction target through the following ongoing actions:

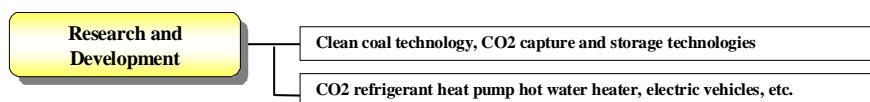
### Decarbonization of energy at the supply-side (Lowering of CO<sub>2</sub> emissions intensity)



### Improvement of the energy usage efficiency at demand-side



### Research Development



## Issues for Accomplishment and Future Efforts

Due to undecided operation plans for the Kashiwazaki-Kariwa Nuclear Plant of Tokyo Electric Power, which has been shutdown due to effect of the Niigata

Prefecture Chuetsu Offshore Earthquake in 2007, it is difficult to envision the influence on CO<sub>2</sub> emissions till 2012 at the moment. Nevertheless, the electric utility industry is committed to achieving the target by continuing various efforts on both the supply and demand sides while also pursuing international activities. The industry is working on the following:

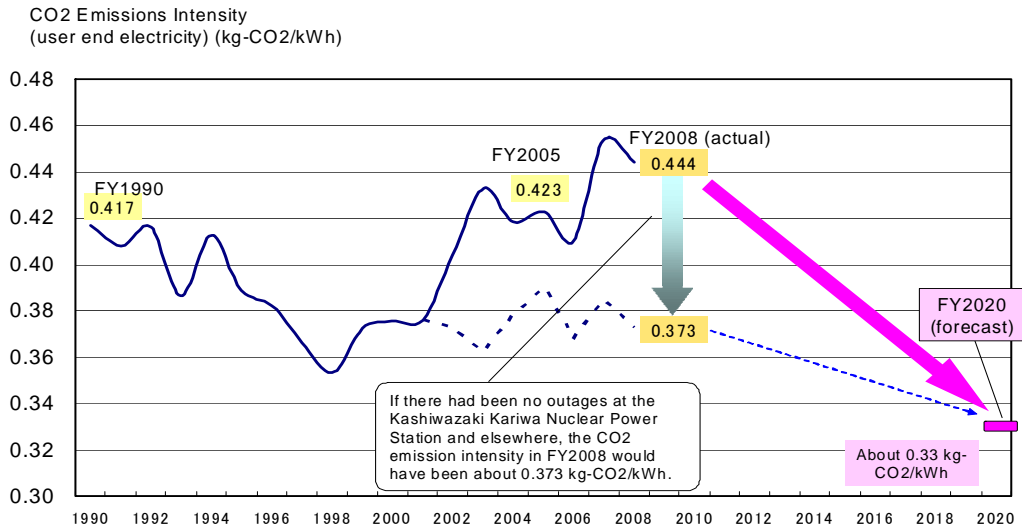
- Promotion of nuclear power generation based on the premise safety assurance
- Further improvement of the thermal efficiency of thermal power generation
- Development and expansion of use of renewable energy sources
- Active utilization of the Kyoto Mechanisms, etc.

The entire electric utility industry of Japan expects to receive carbon credits under the Kyoto Mechanisms, etc. for contributing savings of about 0.25 billion t-CO<sub>2</sub> by 2012. (The earlier estimation, announced in September 2008, was about 0.19 billion t-CO<sub>2</sub>.)

#### Response to the Problem of Global Warming from a Long-term Perspective

In June 2009, former Prime Minister Aso announced Japan's mid-term GHG reduction target to be achieved by 2020. With the upcoming 15th Conference of Parties to the United Nations Framework Convention on Climate Change (COP15) in December, discussions on the post-Kyoto framework will intensify in Japan and the rest of the world.

The electric utility industry of Japan expects to achieve the CO<sub>2</sub> emission intensity of about 0.33 kg-CO<sub>2</sub>/kWh (average for the 10 regional electric companies of Japan) in FY2020 by following the energy supply plans announced in March 2009, making utmost efforts for developing nuclear power generation and highly efficient combined cycle thermal power generation.



The government has announced the aim of reducing GHG emissions by 60-80% (from the present level) by 2050. A key means for the transition to such a low carbon society is Electrification promotion. To help greatly reduce CO<sub>2</sub> emissions from the whole of society, the electric utility industry will continue working up to 2050 to further decarbonize grid power and expand the share of electricity in the energy supply-demand structure.

### **3. Establishing a Recycling-based Society**

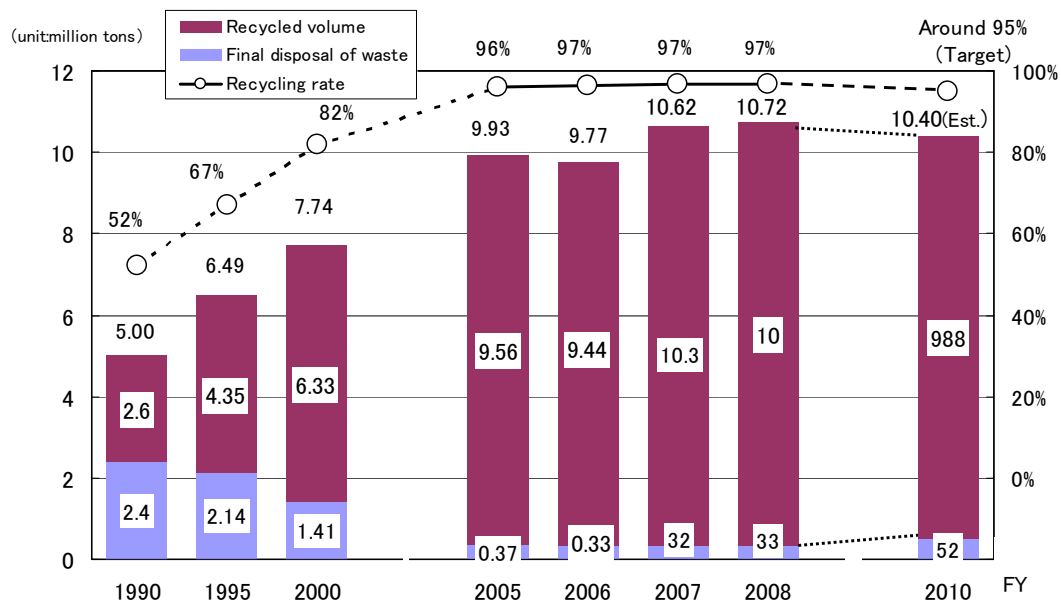
The electric utility industry has been steadily reducing final disposal amount through the continuous pursuit of the 3R's (reduction, reuse and recycling). In FY2005, the industry announced the target of achieving a 90% waste recycling rate, an indicator that is not significantly influenced by fluctuations in electricity demand. Then in fiscal 2006, having revised the target value to 5 points higher, the industry aims to maintain our waste recycling rate for fiscal 2010 at around 95%.

#### **Waste Recycling Rate Targets**

Through fiscal 2010, the electric utility industry aims to maintain its waste recycling rate at around 95%.



Figure: Waste recycling rate targets for the electric utility industry



The recycling ratio in FY2008 was 97%, which was above the target as in FY2007. The result is that a recycling rate of 97% was achieved in fiscal 2008, and the electric utility industry continued achieving its high target of recycling rate of 95% since 2006.

### Future Efforts to Promote 3R

The electric utility industry will strive to reduce the production of waste such as coal ash by continuing to maintain and improve the thermal efficiency of thermal power generation. Regarding coal ash, which accounts for the largest share of total waste volume, the industry will endeavor to develop applications and technology to handle large volumes of coal ash in a stable manner.

### Effective Utilization of Recyclable Resources from Nuclear Power Facilities (Clearance Objects)

In 2006, the clearance system was applied for the first time, and recycle of clearance objects generated by decommissioning construction started at Tokai Power Station of the Japan Atomic Power Company. By applying the clearance system, the electric utility industry keeps working to actively make use of recyclable resources from nuclear power facilities that have been confirmed by authorities to be clearance objects in line with the revised law.

# Electricity Supply and Demand in the Summer of 2009

## 1. Electricity Demand (Generation End) in the Summer of 2009 Reported by the 10 Electric Power Companies of Japan

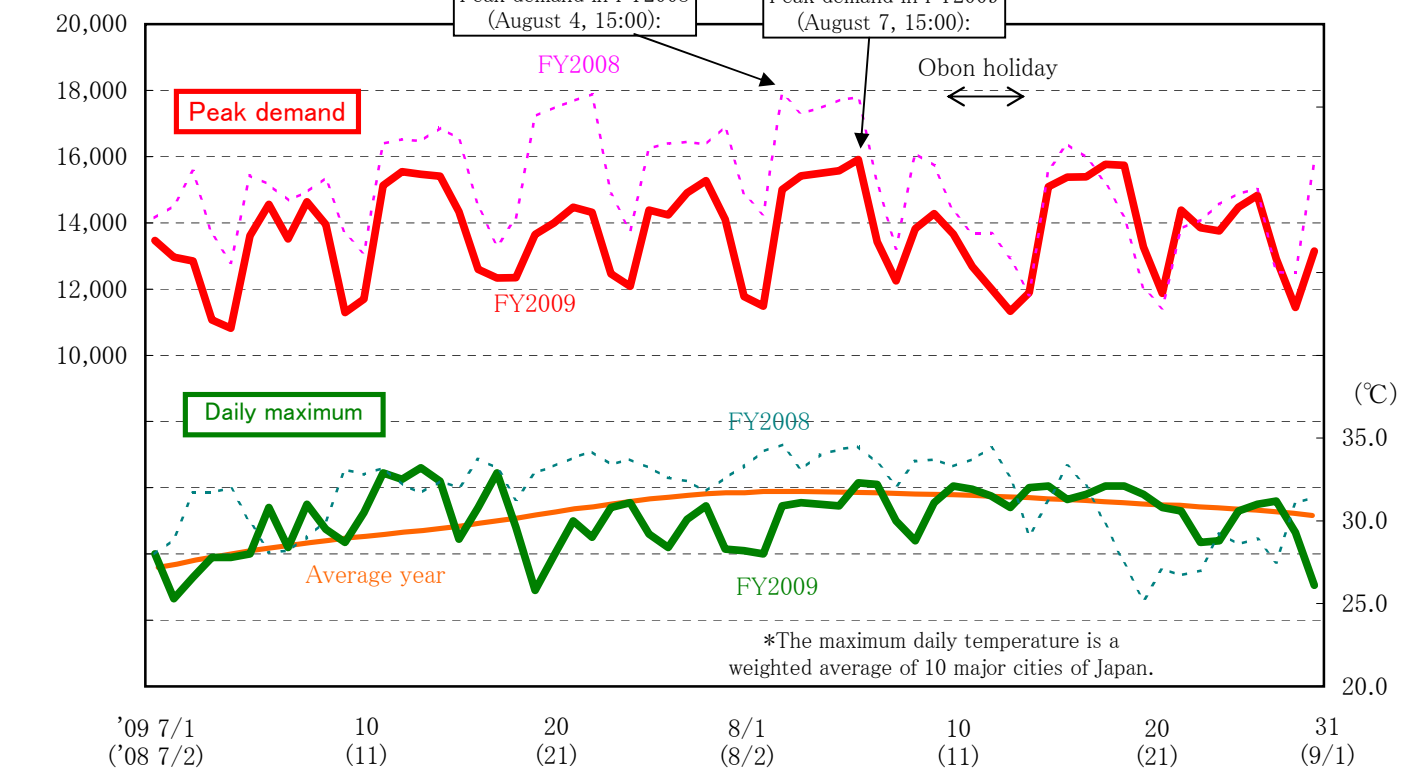
(Units: 10,000 kW, 10,000 kWh, million kWh, %)

Power company	Peak demand			Maximum daily demand			Power Generated and Purchased	
		Date	Percentage against previous year		Date	Percentage against previous year	(Total in July and August)	Percentage against previous year
Hokkaido	470	8/11	96.8	9,688	8/11	95.8	5,551	95.6
Tohoku	1,324	8/6	89.8	25,748	8/6	90.5	14,382	92.0
Tokyo	5,450	7/30	89.5	102,867	7/16	88.9	55,197	92.7
Chubu	2,433	8/4	86.2	44,786	7/15	84.9	23,872	87.4
Hokuriku	508	8/20	89.3	9,577	8/20	86.8	5,063	87.4
Kansai	2,818	7/14	91.4	53,004	8/7	91.1	28,737	91.7
Chugoku	1,071	8/7	89.2	20,945	8/7	89.1	11,211	86.5
Shikoku	542	8/21	90.5	10,407	8/7	91.2	5,620	89.9
Kyushu	1,665	8/7	94.0	32,160	8/7	94.6	17,275	92.5
Okinawa	154	8/3	103.8	3,210	8/3	103.8	1,820	101.2
<b>Total of 10 companies</b>	<b>15,913</b>	<b>8/7</b>	<b>88.9</b>	<b>307,341</b>	<b>8/7</b>	<b>89.8</b>	<b>168,728</b>	<b>91.2</b>

1. indicates a renewed historical high; indicates a renewed historical high for the summer season. A circled number indicates the number of times the historical high was renewed.  
 2. Power Generated and Purchased consists of the values in July from the confirmed report and the values in August from the bulletin report.

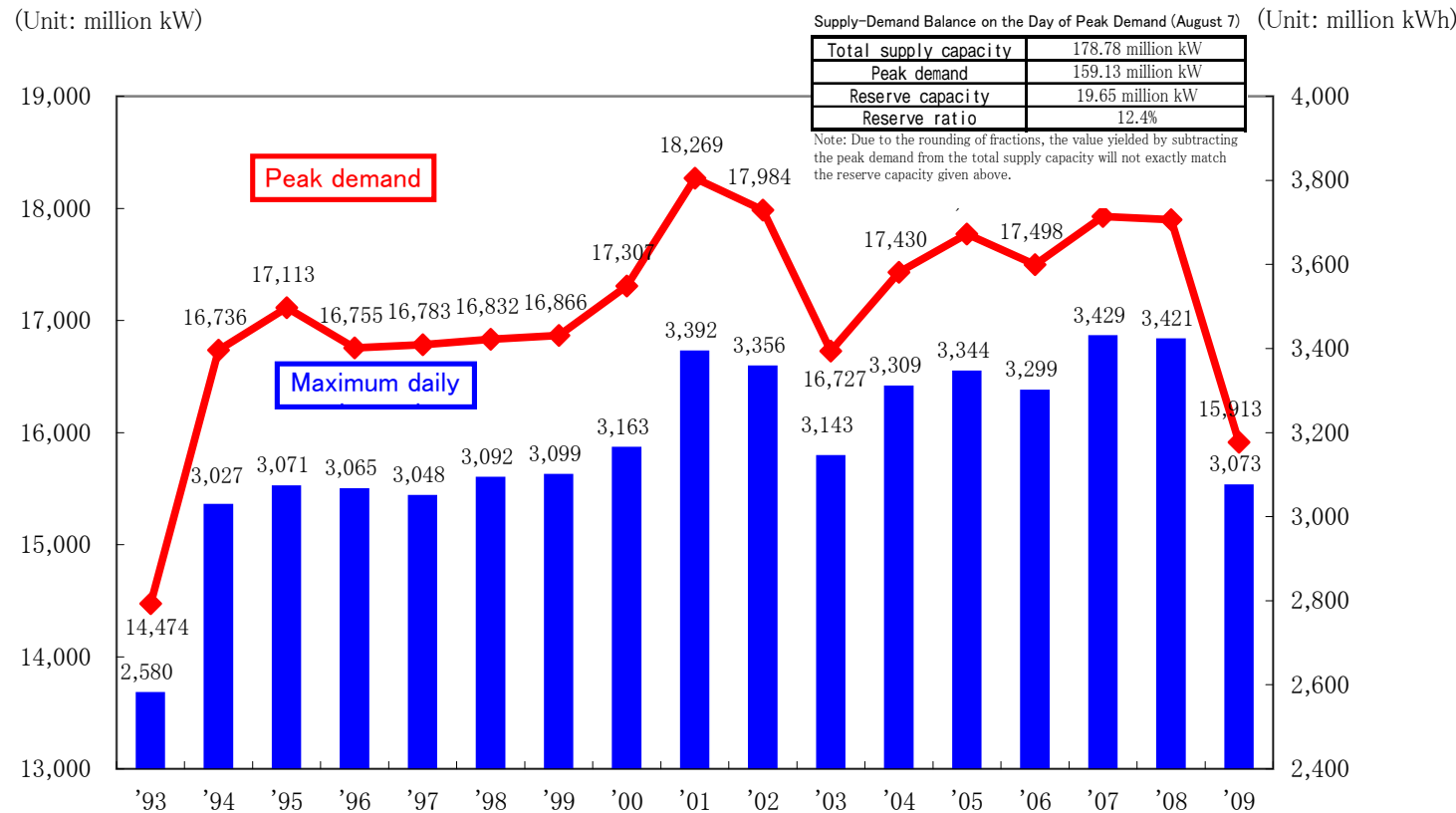
## 3. Trend of Peak Demand (Total of the 10 Electric Power Companies) with Changes in Daily Maximum Temperature

(Unit: 10,000)



## 2. Trend of Peak Demand and Maximum Daily Demand (Total of the 10 Electric Power Companies)

(Unit: million kW)



## 4. Average Daily Maximum Temperatures and the Numbers of Hot Days, Very Hot Days and Hot Nights in 10 Major Cities in Japan

	Maximum daily temperature (°C)						Number of hot days (30° C or above)			Number of very hot days (35° C or above)			Number of hot nights					
	July average	Difference from average year	Difference from previous year	August average	Difference from average year	Difference from previous year	July and August	Difference from average year	Difference from previous year	Number of days	Difference from average year	Difference from previous year	Number of days	Difference from average year	Difference from previous year	Number of days	Difference from average year	Difference from previous year
Sapporo	23.1	▲ 1.9	▲ 2.6	25.3	▲ 0.8	▲ 0.1	24.2	▲ 1.4	▲ 1.4	3	▲ 4.5	▲ 1.0	0	▲ 0.2	0.0	0	▲ 0.1	0.0
Sendai	26.5	0.8	0.1	26.3	▲ 1.6	▲ 0.4	26.4	▲ 0.4	▲ 0.2	7	▲ 8.0	▲ 3.0	0	▲ 0.4	0.0	0	▲ 0.8	0.0
Tokyo	29.3	0.3	▲ 1.6	30.1	▲ 0.7	▲ 0.6	29.7	▲ 0.2	▲ 1.1	35	▲ 1.2	▲ 8.0	0	▲ 1.7	▲ 1.0	20	▲ 0.4	▲ 3.0
Nagoya	30.4	▲ 0.1	▲ 3.0	31.9	▲ 0.3	▲ 1.7	31.1	▲ 0.3	▲ 2.4	46	2.5	▲ 6.0	2	▲ 5.3	▲ 24.0	13	0.7	▲ 15.0
Toyama	28.5	▲ 0.3	▲ 3.1	28.8	▲ 1.6	▲ 1.5	28.7	▲ 0.9	▲ 2.3	20	▲ 10.4	▲ 19.0	2	▲ 1.1	▲ 2.0	0	▲ 4.0	▲ 8.0
Osaka	31.3	▲ 0.1	▲ 2.0	32.5	▲ 0.5	▲ 0.3	31.9	▲ 0.3	▲ 1.1	47	▲ 3.1	▲ 6.0	3	▲ 4.9	▲ 10.0	27	▲ 1.4	▲ 15.0
Hiroshima	29.1	▲ 1.7	▲ 3.7	31.9	▲ 0.2	▲ 0.7	30.5	▲ 1.0	▲ 2.2	38	▲ 2.6	▲ 16.0	1	▲ 1.6	▲ 12.0	16	0.4	▲ 21.0
Takamatsu	30.7	0.0	▲ 3.1	31.7	0.0	▲ 0.8	31.2	0.0	▲ 2.0	45	0.5	▲ 8.0	4	▲ 0.3	▲ 11.0	22	10.5	▲ 19.0
Fukuoka	30.5	▲ 0.2	▲ 2.8	31.6	0.0	▲ 0.3	31.0	▲ 0.2	▲ 1.6	40	▲ 2.8	▲ 13.0	0	▲ 3.6	▲ 10.0	22	▲ 2.7	▲ 15.0
Naha	32.2	0.9	▲ 0.1	32.7	1.8	0.8	32.5	1.4	0.4	61	9.9	0.0	0	0.0	0.0	58	5.2	0.0
Average of 10 cities	29.6	0.0	▲ 2.1	30.7	▲ 0.5	▲ 0.6	30.1	▲ 0.3	▲ 1.4	34.2	▲ 2.0	▲ 8.0	1.2	▲ 1.9	▲ 7.0	17.8	0.7	▲ 9.6

The 10-city average is a weighted average for the maximum daily temperatures and a simple average for the number of hot days, very hot days and hot nights.