



# Our Commitment to Environmental Activities

## 1 Records and Targets of Environmental Load\*

Kyushu Electric Power sets specific target values for their main environmental activities and endeavors to reduce environmental load.

Item	Unit	Record				Evaluation <sup>*1</sup>	Interim target <sup>*2</sup>		Target	Page	
		FY2001	FY2002	FY2003	Interim Target <sup>*2</sup>		FY2004	FY2005	FY2006		
Measures for global environmental issues	CO <sub>2</sub> *emissions	10,000 t-CO <sub>2</sub>	2,660	2,570	2,390	Approx. 2,400	○	Approx. 2,600 <sup>*3</sup>	Approx. 2,600 <sup>*3</sup>	Approx. 2,700 <sup>*3</sup>	P19
	CO <sub>2</sub> emissions intensity*(End use electricity*)	kg-CO <sub>2</sub> /kWh	0.353	0.336	0.309 <sup>*4</sup>	Approx. 0.32	○	Approx. 0.34 <sup>*3</sup>	Approx. 0.34 <sup>*3</sup>	Approx. 0.34 <sup>*3</sup>	P19
	Nuclear power operating factor*	%	79.7	85.9	88.9	86.2	○	84.4 <sup>*3</sup>	83.8 <sup>*3</sup>	Approx. 85 <sup>*3</sup>	P19
	Generated thermal efficiency at thermal power plants***(sent out thermal efficiency)*	%	[40.5]	[40.5]	39.2[40.8]	[Approx.40]	○	Approx. 39 <sup>*3</sup> [Approx. 40]	Approx. 39 <sup>*3</sup> [Approx. 40]	Approx. 39 <sup>*3</sup> [Approx. 40]	P20
	Utilization of power generated from new energy sources*	million kWh	—	—	391 or more	391 or more	○	425 <sup>*6</sup> or more	445 or more	472 or more	P20
	Transmission/distribution loss factor*	%	5.2	5.5	5.4	5.5	○	5.5 <sup>*3</sup>	5.5 <sup>*3</sup>	5.5 <sup>*3</sup>	P22
	Office power consumption	million kWh	108	108	106	104 or less	×	103 or less	102 or less	101 or less	P22
	Low-emission*/fuel-efficient vehicle* introduction*7	%	3.5	5.0	11.8	10 or more	○	20 or more	25 or more	40 or more	P23
	SF <sub>6</sub> * recovery at equipment checkups	%	98	98	98	98 or more	○	98 or more	98 or more	98 or more	P23
	Regulated Freon* collection at equipment checkups	%	—	—	99	100	△	100	100	100	P23
Establishing a recycling-based society*	Industrial waste recycling rate*	%	75	74	92	90 or more <sup>*8</sup>	○	90 or more <sup>*8</sup>	90 or more <sup>*8</sup>	90 or more <sup>*8</sup>	P24
	Coal ash* recycling rate*	%	68	68	90	90 or more <sup>*8</sup>	○	90 or more <sup>*8</sup>	90 or more <sup>*8</sup>	90 or more <sup>*8</sup>	P24
	Other waste* recycling rate*	%	96	97	99	98 or more	○	98 or more	98 or more	98 or more	P24
	Used paper* collection and recycling rate*	%	Approx. 50 <sup>*9</sup>	100	100	100	○	100	100	100	P25
	Green procurement** <sup>*10</sup>	%	—	83	88	100	△	100	100	100	P26
Maintaining harmony with the local environment	SO <sub>x</sub> *emissions intensity* per thermal power generated kWh	g/kWh	0.27	0.27	0.16	Approx. 0.2	○	Approx. 0.2	Approx. 0.2	Approx. 0.2	P27
	NO <sub>x</sub> *emissions per unit output per thermal power generated kWh	g/kWh	0.22	0.22	0.18	Approx. 0.2	○	Approx. 0.2	Approx. 0.2	Approx. 0.2	P27
	Sievert calculation in radiation measurement* on people living near nuclear power stations (per year)	mSv*	Less than 0.001	Less than 0.001	Less than 0.001	Less than 0.001	○	Less than 0.001	Less than 0.001	Less than 0.001	P28
Employee awareness enhancement	Number of qualified Persons for Energy Management of Type1 Designated Factory*	persons	682	783	870	500 or more	○	500 or more	500 or more	500 or more	P35
	Number of Pollution Control Managers*	persons	500	486	490	500 or more	△	500 or more	500 or more	500 or more	P35

\*1 : The FY2003 achievement status of the interim target set for FY2003 is evaluated on a 3-level system: ○: fully achieved, △: almost achieved (more than 80%) and ×: yet to be achieved (less than 80%).

\*2 : Target values set to evaluate the degree of achievement per year at interim points up to FY2006

\*3 : Prospects based on FY2004 power supply plans

\*4 : CO<sub>2</sub> emissions intensity was calculated separately for daytime and nighttime for the first time in FY2003. (See the table below.)

\*5 : Subject of targets were changed from generated thermal efficiency to sent-out thermal efficiency to control power consumption including the reduction of internal electricity use for power generation at power stations (ratio of energy from the fuel used in the station). Figures of generation end efficiency are also given in brackets.

\*6 : Target is revised according to the setting of the standard utilization value for FY2004 based on the Law on Special Measures Concerning New Energy Use by Electric Utilities (RPS Law).

\*7 : The percentage of clean-energy vehicles (electric and hybrid cars\*) and fuel-efficient vehicles\* (vehicles that are in conformity with FY2010 fuel economy standards and that are low-emission vehicles approved by the Ministry of Land, Infrastructure and Transport) in the company fleet

\*8 : Targets are revised by taking into account both the status of those receiving coal ashes for utilization and the systematic landfill of the company's existing ash dump yard installed at the thermal power stations.

\*9 : Estimation based on the records of some operational sites \*10 : Green procurement includes office and stationery supplies that are in conformity with socially-recognized standards.

### End use CO<sub>2</sub> emissions intensity\* in the daytime and nighttime (Unit: kg-CO<sub>2</sub>/kWh)

All-day	Daytime (8:00-22:00)	Nighttime (22:00-8:00)
0.309	0.333	0.267

### Comparison of FY2003 achievements to those of past years

◇ Primary factors for the CO<sub>2</sub>\* emission decrease (by 1.8 million t-CO<sub>2</sub>) and emissions intensity\* (0.027kg-CO<sub>2</sub>/kWh)

Due to the implementation of constant cycling at rated thermal output as well as short shutdown periods for periodic inspection\*, the nuclear power capacity factor increased from 85.9% to 88.9%, resulting in an increased share of nuclear power generation from 45% to 47% in total generated electricity.

◇ Primary factors for industrial waste\* recycling rate\* improvement (18 points)

The recycling rate\* of coal ash, which accounts for 80%

of the industrial waste\*, increased from 68% to 90% in fiscal 2002, owing to the utilization of coal ash as cement material\* and cement admixtures\*.

	FY2003 records	
	Comparison to previous year	Comparison to FY1990
CO <sub>2</sub> emissions	1.8 million t-CO <sub>2</sub> decrease	4% down
CO <sub>2</sub> emissions intensity	0.027kg-CO <sub>2</sub> /kWh decrease	31% down
Industrial waste recycling rate	18-point increase	—