

3 Records and Targets of Environmental Load

We set specific target values for our main environmental activities and endeavors to reduce environmental load①.

	Items	Unit	Records			FY2004 targets	Evaluation*1		
			FY2002	FY2003	FY2004				
Measures for global environmental issues①	Supply	CO ₂ ① emissions reduced	—	—	—	—	—	(Subject newly introduced)	
		CO ₂ emissions intensity① (end use electricity)	kg-CO ₂ /kWh (10 thousand tons-CO ₂ /100 million kWh)	0.336 (-)	0.309 (-)	0.331 (-)	Approx. 0.34	Safe and regulated operation of nuclear power stations led to 1.8 percentage points improvement in nuclear power capacity factor over the planned value. CO ₂ emissions are slightly higher than the target due to a 2.4 billion kWh increase in electricity sales by in the summer when temperatures were higher than average.	
			CO ₂ emissions	10 thousand tons-CO ₂	2,570	2,390	2,660		Approx. 2,600
		Nuclear power operating factor①	%	85.9	88.9	86.2	84.4		
		Generated thermal efficiency at thermal power stations① (sent-out thermal efficiency①)*4 [Generation end efficiency①]	%	39.0 [40.5]	39.2 [40.8]	39.3 [40.8]	Approx. 39 [Approx. 40]		
	Utilization of power generated from new energy sources①	Million kWh	—	391 or more	425 or more	425 or more			
	Consumption	Transmission and distribution loss factor①	%	5.5	5.4	5.5	5.5	The target was met due to efforts to improve transmission and distribution facility efficiency such as the introduction of low-loss transformers, although electricity sales were higher than the planned value.	
		Office power consumption	Million kWh	108	106	105	103 or less	x	Marked 1% reduction from the value of FY2003 through rigorous energy-saving activities utilizing EMS① operation. However, this value exceeded the target by 2 million kWh due to the addition of new offices. Future reduction is being pursued through the introduction of high-efficiency equipment.
		Low-emission/fuel-efficient vehicle① introduction*6	%	5.0	11.8	21.6	20 or more	Fourteen hybrid vehicles① and 334 fuel-efficient vehicles① introduced as planned, led to achieving the target.	
		SF ₆ ① recovery at equipment inspections	%	98	98	98	98 or more	The target was met by the use of vacuum SF ₆ recovery equipment at the time of checkups ensured by facility management staff members' enhanced self-management awareness.	
Regulated freons① recovery at equipment checkups		%	-	99	100	100	The target was met due to the recovery of regulated freons meeting the required legal standards (legal pressures at the time of dismantlement) by facility management staff members' enhanced self-management awareness.		
Establishing a recycling society①	Industrial waste① recycled①	%	74	92	92	90 or more	The target was met through efforts such as promoting effective and expanded utilization of coal ash as a construction material, and expanding distribution channels which meet users' various needs, as well as through measures of EMS to ensure the target recycling rate is met.		
		Coal ash① recycled	%	68	90	90		90 or more	
		Other waste recycled	%	97	99	98		98 or more	
	Industrial waste landfilled outside company*7	Tons	1,420	1,160	1,040	—	—	(Subject newly introduced)	
	Used paper① recycled	%	100	100	100	100	The target was met due to continuous efforts towards recycling 100% of used paper by ensuring handover process to recycling businesses including Kyushu Environmental Management Corporation.		
	Green procurement①*8	%	83	88	94	100	Although the target was not met, value improved by 6 percentage points from FY2003 due to intensive promotion via the company intranet and distribution of a green catalog. Future improvement is being pursued through efforts such as employee awareness enhancement.		
Maintaining harmony with the local environment	SO _x ① emissions intensity① per thermal power generated kWh	g/kWh	0.27	0.16	0.20	Approx. 0.2	The target was met by proper operation of desulfurization① and denitration facilities① although increased electricity sales raised thermal power generated kWh, which has relatively high emissions intensity.		
	NO _x ① emissions intensity per thermal power generated kWh	g/kWh	0.22	0.18	0.18	Approx. 0.2			
	Sievert calculation in radiation measurement on people living near nuclear power stations① per year	mSv①	Less than 0.001	Less than 0.001	Less than 0.001	Less than 0.001	The target was met by appropriately conducting nuclear power station operation and radioactive waste① management according to laws and ordinances.		
Employee awareness enhancement	Number of Qualified Persons for Energy Management of Type 1 Designated Factory①	Persons	783	870	960	500 or more	The target was met through our constant efforts to enhance qualification support program, aiming to promote proper business operations in compliance with the related laws and ordinances.		
	Number of Pollution Control Managers①	Persons	486	490	507	500 or more			

*1: The FY2004 achievement status against the FY2004 target is evaluated on a 3-level system: : fully achieved, : almost achieved (more than 80%), : x: yet to be achieved (less than 80%).

*2: Target year and target values have been changed as the company established the mid-term 5-year management policy starting from FY2005.

*3: Prospects based on FY2005 power supply plans

*4: Target item changed in FY2004 from "generated thermal efficiency" to "sent-out thermal efficiency" to control power consumption including the reduction of electricity used for generation at power stations (auxiliary power ratio). Values for generated thermal efficiency are also given in brackets.



Interim targets*2		Targets*2	Records and Targets	Page						
FY2005	FY2006	FY2009								
			Items							
				Records						
				FY2002						
				FY2003						
				FY2004						
				FY2005						
				Targets						
				FY2006						
				FY2009						
(Reduce end use electricity CO ₂ emissions intensity in FY2010 by approx. 20% from the standards in FY1990.)			—	—	—	—	—	—		
Approx. 0.34*3 (Approx. 2,700/801)	Approx. 0.34*3 (Approx. 2,700/808)	Approx. 0.35*3 (Approx. 2,900/826)	CO ₂ emissions intensity (end use electricity) (kg-CO ₂ /kWh)	0.336	0.309	0.331	0.34	0.34	0.35	P24-28
			CO ₂ emissions (10 thousand tons-CO ₂)	2,570	2,390	2,660	2,700	2,700	2,900	
84.4*3	84.8*3	Approx. 85*3	Nuclear power operating factor (%)	85.9	88.9	86.2	84.4	84.8	85	P24
Approx. 40*3	Approx. 40*3	Approx. 40*3	Generated thermal efficiency at thermal power stations (sent-out thermal efficiency) (%)	39.0	39.2	39.3	40	40	40	P26
445*5 or more	472 or more	834 or more	Utilization of power generated from new energy sources (million kWh)	—	391	425	445	472	834	P26-27
5.4*3	5.4*3	5.4*3	Transmission and distribution loss factor (%)	5.5	5.4	5.5	5.4	5.4	5.4	P28
102 or less	101 or less	98 or less	Office power consumption (million kWh)	108	106	105	102	101	98	P29
25 or more	40 or more	60 or more	Low-emission/fuel-efficient vehicle introduction (%)	5.0	11.8	21.6	25	40	60	P29
98 or more	98 or more	98 or more	SF ₆ recovery at equipment checkups (%)	98	98	98	98	98	98	P28
100	100	100	Regulated freons recovery at equipment checkups (%)	—	99	100	100	100	100	P29
90 or more	90 or more	90 or more	Industrial waste recycled (%)	74	92	92	90	90	90	P34-35
90 or more	90 or more	90 or more	Coal ash recycled (%)	68	90	90	90	90	90	
98 or more	98 or more	98 or more	Other waste recycled (%)	97	99	98	98	98	98	
1,000 or less	1,000 or less	1,000 or less	Industrial waste landfilled outside company (tons)	1,420	1,160	1,040	1,000	1,000	1,000	P35
100	100	100	Used paper recycled (%)	100	100	100	100	100	100	P36
100	100	100	Green procurement (%)	83	88	94	100	100	100	P37
Approx. 0.2	Approx. 0.2	Approx. 0.2	SO _x emissions intensity per thermal power generated kWh (g/kWh)	0.27	0.16	0.20	0.2	0.2	0.2	P39
Approx. 0.2	Approx. 0.2	Approx. 0.2	NO _x emissions intensity per thermal power generated kWh (g/kWh)	0.22	0.18	0.18	0.2	0.2	0.2	
Less than 0.001	Less than 0.001	Less than 0.001	Sievert calculation in radiation measurement on people living near nuclear power stations per year (mSv)	0.001	0.001	0.001	0.001	0.001	0.001	P32, 40
500 or more	500 or more	500 or more	Number of Qualified Persons for Energy Management of Type 1 Designated Factory (persons)	783	870	960	500	500	500	P46
500 or more	500 or more	500 or more	Number of Pollution Control Managers (persons)	486	490	507	500	500	500	

*5: This will be revised according to the standard utilization value for FY2005 to be newly determined based on the Law on Special Measures Concerning New Energy Use by Electric Utilities (RPS Law).

*6: This is the percentage of clean-energy vehicles (electric vehicles, hybrid cars) and fuel-efficient 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.

*7: This item has been newly introduced to focus on the importance of measures to reduce waste from the point of shortage of final disposal sites.

*8: Green procurement includes office and stationery supplies that are in conformity with socially-recognized standards.

