

2. Performance and Future Targets for Main Environmental Indicators

(pp. 18-21, etc.)

(1) Increase in environmental burden accompanying increased power generation by thermal power stations

To compensate for the decrease in power generation of nuclear power stations due to temporary closure following the nuclear power incidents, we increased the volume of power generated by thermal power stations. Consequently, our emissions of environmental pollutants (CO₂, SO_x, NO_x) also increased across the board.

* Nuclear power capacity utilization rate: FY2001 performance 80.1% → FY2002 performance 60.7%

a. CO₂ (pp. 26)

To compensate for the reduction in power generation of nuclear power stations, we recommenced operations at thermal power stations, which had long been suspended. Meanwhile, electricity sales increased by 2.3%. As a result of these and other factors, CO₂ emissions increased by 23% (20 million tons) compared to the previous fiscal year. The emission intensity increased by 20% (almost returning to the figure for FY1990).

To attain the target for CO₂ emission intensity in FY2010 (“20% reduction compared to the FY1990 figure”), we aim to promote the operation and steady development of nuclear power generation, with safety as the No.1 priority. We will continue efforts to further improve the nuclear power capacity utilization rate and the thermal efficiency of thermal power generation. We will also attempt to reduce emissions by combining various other measures, such as applying the Kyoto Mechanism.

	Performance (fiscal year)			Future target FY2010
	1990	2001	2002	
CO ₂ emission intensity (kg-C O ₂ /kWh) (*)	0.382	0.317	0.381	20% reduction compared to FY1990 approx. 0.31
CO ₂ emissions (million t)	84.1	87.4	107.4	—
Electricity sales (TWh)	219.9	275.5	281.9	

(*) kg- CO₂/kWh: Volume of CO₂ per kWh of electricity sales

b. SO_x, NO_x (p. 34)

The re-start of operations at long-idle thermal power stations to compensate for the reduction in power generated by nuclear power stations, among other factors, led to an increase in the proportion of oil-fired thermal power generation. Since the latter emits SO_x and NO_x in large quantities, the

SOx emission intensity was twice as high and NOx emission intensity 1.5 times as high as in the previous fiscal year.

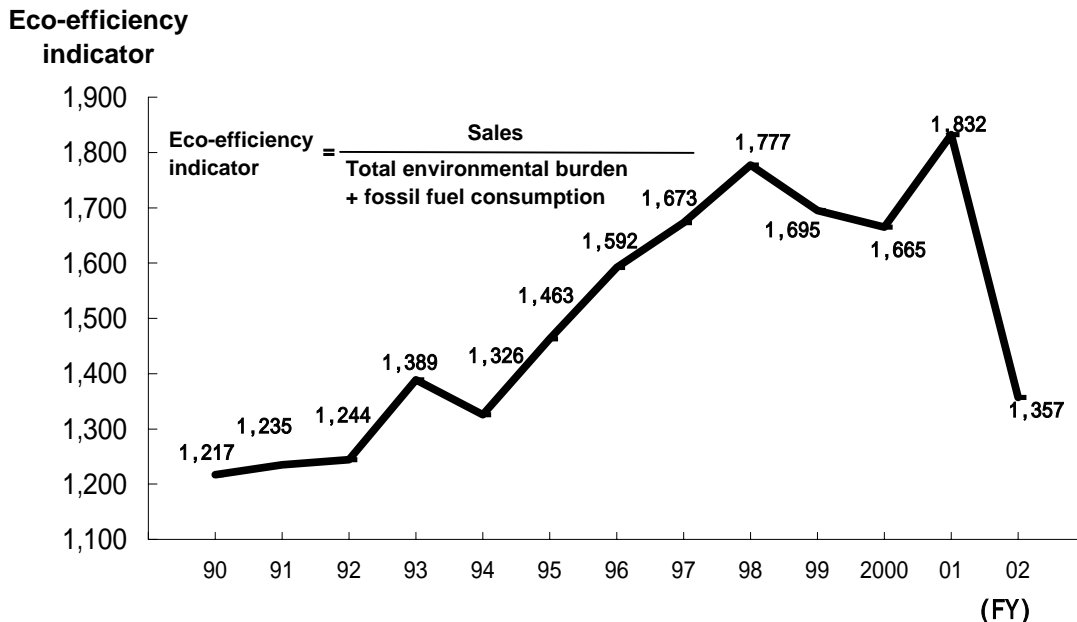
	Performance (fiscal year)			Future target FY2012
	1990	2001	2002	
SOx emission intensity (g/kWh)	0.17	0.05	0.10	0.1 or less
NOx emission intensity (g/kWh)	0.22	0.08	0.12	Approx. 0.1

c. The eco-efficiency indicator (pp. 67)

The eco-efficiency indicator was first introduced in the 2001 Report as the ratio of emissions of CO₂, SOx, NOx and other environmental pollutants to economic value (sales turnover). From the 2002 Report, “consumption of resources (fossil fuel consumption volume)”, one element of environmental burden, was added to the targets of evaluation, and we started evaluating eco-efficiency on this basis.

In FY2002, in addition to increased volumes of CO₂, SOx, and NOx emissions as well as fossil fuel consumption, sales turnover also decreased. Consequently, the eco-efficiency indicator fell by about 26% compared to the previous fiscal year. This is about the same level for this indicator as 10 years ago.

Trends in the Eco-Efficiency Indicator



(Notes)

- Sales turnover is the operating revenue of the electricity industry.
- Total environmental burden and fossil fuel consumption are combined totals reached by weighting a plural number of environmental pollutants (CO₂, SOx, NOx) and consumption of fossil fuels (heavy oil, crude oil, LNG) by their respective environmental impact. The coefficients used in weighting are set on the basis of “Eco-indicators 99”, a representative method of integration.

(2) 97% improvement in total industrial waste recycling rate (pp. 40-41)

Thanks to our improved recycling rate for individual items compared to the previous fiscal year (shellfish: 45 → 70%, concrete scrap: 86 → 99%), the total recycling rate was 97%, 2 points higher than the figure for the previous fiscal year. To attain the target of a “100% total industrial waste recycling rate by FY2005”, we will continue our priority commitment to improving recycling rates for waste plastics (31%) and thermal insulation material scraps (50%).

		Performance (fiscal year)		Future target FY2005
		2001	2002	
Total recycling rate (%)		95	97	Aim for 100%
Individual waste recycling rates (%)	Group A: scrap concrete utility poles, etc. (*1)	100	100	Maintain present level (100%)
	Group B: sludge, shellfish, rubble, etc. (*2)	79	89	Aim for 100%
	Group C (metal scrap, waste plastics, etc.) (*3)	92	95	Aim for 100%

(*1) Waste that has already reached 100% recycling

(*2) Waste for which not enough recycling has been achieved so far

(*3) Mixed waste that is difficult to sort

(3) Improved in-house energy and resource consumption volumes (pp. 33)

Since FY2001, we have set targets for reducing our internal use of energy and resources in four areas (electricity used in offices, general water usage, fuel for vehicles, and paper purchased for copiers and printers). In this way, we aim to improve the environmental awareness of all our staff in their daily work. We are now making concerted efforts throughout the company to attain these.

Improvements were made in all four areas compared to FY2001. In the category of “general water usage”, particularly notable success was achieved, with the overall company target for FY2005 being attained 3 years early. In future, we will continue to set individual targets for different TEPCO sites and make efforts to attain them. From FY2003, meanwhile, these targets and performances will be included in the performance evaluation of each business site.

Reduction rate : compared to FY2000	Performance (fiscal year)				FY2005 target Reduction rate
	2000	2001	2002	Reduction rate	
Electricity used in offices (GWh)	305	298	278	9%	15%
General water usage (thousand m ³)	2,220	1,940	1,650	25%	15%
Fuel for vehicles (L/km <fuel consumed per distance traveled>)	0.112	0.109	0.105	6% (improvement)	20% (improvement)

Reduction rate : compared to FY2000	Performance (fiscal year)				FY2005 target Reduction rate
	2000	2001	2002	Reduction rate	
Paper purchased for copiers and printers (million sheets / A4 conversion)	400	360	330	18%	50%

(4) Setting challenging targets for general waste recycling (pp. 42)

As well as promoting efforts aimed at a 100% recycling rate for industrial waste (by FY2005) in a bid to create a resource recycling society, TEPCO has also set quantified targets for general waste (office waste). Specifically, we also aim for a general waste recycling rate of 100% by FY2005, taking our Head Office as a model site.

To recover waste as resources, we are promoting recycling by changing our sorting method from the existing 11 categories to 17, while also striving to “reduce and reuse”. In future, we will promote studies with a focus not only on Head Office but also taking all TEPCO branch offices into account.

- (Note) The existing 11 categories: Photocopier paper, color print / magazines, newspaper, cardboard, shredded paper, cigarette ends, tea leaves, PET bottles, bottles, cans, trash can waste
- The future 17 categories: The above, plus mixed paper, miscellaneous waste, waste plastics, compound products, metal scrap, batteries, and fluorescent lamps, minus trash can waste
- * Compound products: Products formed from a combination of plastic and metal, such as calculators, lighters, telephones, clocks, etc.