

1 Environmental Management in the J-POWER Group

The J-POWER Group believes that energy production and the environment can coexist in harmony. In light of this corporate philosophy, our environmental management aims to promote greater environmental responsibility while enhancing the economic value of our operations in order to further contribute to the development of a sustainable society.

J-POWER Group Environmental Management Vision

In keeping with the Basic Policy of the J-POWER Group Environmental Management Vision, which was formulated in 2004, the J-POWER Group has adopted an Environmental Action Program laying out specific tasks and goals and the means to achieve them. The Group as a whole is working to achieve these environmental goals, guided by Corporate Targets^{*1} that outline midterm targets for our efforts and Environmental Action Guidelines that clarify the focus of our efforts for each fiscal year.

Note: Figures for CO₂ emissions per unit of electric power sold refer to all J-POWER Group power generation operations in Japan and overseas (see p. 55).

Environmental Management Vision

Basic Policy				
Basic Stance	As an energy supplier, we will contribute to the sustainable development of Japan and the rest of the world by harmonizing our operations with the environment and ensuring the constant supply of energy essential to human life and economic activity.	Item	Base-year performance, etc	FY 2007 performance
Part 2 Efforts Relating to Global Environmental Issues	In accordance with the principles of the United Nations Framework Convention on Climate Change, we will cost-effectively address issues relating to climate change on a global scale. We will continue to reduce CO ₂ emissions per unit of electric power sold through an economically rational combination of measures including maintenance and improvement of the efficiency of energy use; development of low CO ₂ emission power sources; development, transfer, and dissemination of new technologies; and utilization of the Kyoto Mechanisms. Furthermore, we will continue to work toward our ultimate goal of achieving zero emissions through the capture and storage of CO ₂ .	· Reduce CO ₂ emissions per unit of electric power sold (domestic and overseas operations)	FY 2002 0.72 (kg-CO ₂ /kWh)	0.70 (kg-CO ₂ /kWh)
		· Maintain/improve thermal efficiency of thermal power stations (HHV [higher heating value])	—	40.3 (Reference: LHV ² = 41.4)
		· Reduce SF ₆ emissions; increase recovery rate during inspection and retirement of equipment	—	Inspection: 99% Retirement: NA
		· Reduce electric power consumption at offices	FY 2006 22.82 (GWh) ^{*3}	22.23 (GWh)
		· Reduce fuel consumption by offices (gasoline equivalent)	FY 2006 1,644 (kl)	1,339 (kl)
Part 3 Efforts Relating to Local Environmental Issues	We will take measures to reduce the environmental impact of our operations by saving, recycling, and reusing resources to limit the generation of waste and foster good community relations.	· Reduce SO _x emissions per unit of electric power generated (point of generation, thermal power stations)	—	0.20 (g/kWh)
		· Reduce NO _x emissions per unit of electric power generated (point of generation, thermal power stations)	—	0.50 (g/kWh)
		· Increase recycling rate for industrial waste	—	98%
		· Increase paper recycling rate	FY 2006 87%	86%
		· Increase rate of green purchasing of office supplies (stationery, etc.)	—	69%
		· Increase percentage of recycled copy paper purchased	FY 2006 95%	95%
		· Increase percentage of low-emission vehicles	—	87%
Part 4 Ensuring Transparency and Reliability	We will ensure that our business activities comply with all laws and regulations, disclose a wide range of environmental information, and enhance communication with stakeholders.	· Raise level of environmental management	—	Adoption of EMSs at all consolidated subsidiaries completed by the end of FY 2007 as planned.

*1 In addition to Group-wide corporate targets, business divisions and affiliates set their own targets tailored to their operations.



Koriyama-Nunobiki Kogen Wind Farm (Fukushima Prefecture)

Action Program

Corporate Targets

Fiscal Year Guidelines

	FY 2008 performance	Target	FY 2008 evaluation and next steps	Further Information
	0.68 (kg-CO ₂ /kWh)	Approx. 10% reduction from FY 2002 level (in FY 2010)	CO ₂ emissions fell about 2% from the previous fiscal year owing mainly to a decrease in the operating rate of thermal power stations, while power sales increased 1% over the previous year, reducing emissions intensity to 0.68 kg-CO ₂ /kWh, roughly 5% below the FY 2002 level. We will continue to strive to meet our 2010 target.	p. 55
	40.1 (Reference: LHV = 41.1)	Maintain current level (about 40%) (FY 2008 and each FY thereafter)	The J-POWER Group maintained a total thermal efficiency of 40.1% (HHV) for thermal power generation in FY 2008 thanks to efforts to maintain highly efficient operation in existing thermal power stations and adopt high-efficiency technologies when upgrading facilities. We will continue working to maintain and improve efficiency of energy use in our thermal power stations.	p. 52
	Inspection: 99% Retirement: 99%	Inspection: at least 97% Retirement: at least 99% (FY 2008 and each FY thereafter)	The FY 2008 target was met, with a recovery rate of 99.1% during inspections and 99.6% at retirement, thanks to efforts to curb emissions during equipment inspection through careful and consistent recovery and reuse. We will continue to stress careful and consistent recovery and reuse to curb atmospheric emissions of SF ₆ from gas insulation equipment.	p. 55
	21.86 (GWh) 2% annual decrease	At least 4% reduction from FY 2006 (in FY 2010) At least 1% annual reduction	Thanks to such energy-saving efforts as keeping lights off during lunch break, reducing power supply to equipment on standby, and turning down air conditioner settings, the FY 2008 target was achieved with an annual reduction of approximately 2%. We will continue our energy conservation efforts with the help of office energy-saving checklists and other tools.	p. 56
	1,251 (kl) 7% annual decrease	At least 4% reduction from FY 2006 (in FY 2010) At least 1% annual reduction	Energy-conservation initiatives resulted in a reduction of 7% from the previous fiscal year, meeting the FY 2008 target. We will continue working to reduce fuel consumption by making maximum use of public transportation, making more efficient use of company vehicles, using green driving techniques, etc.	p. 56
	0.20 (g/kWh)	Maintain current level (about 0.2 g/kWh) (FY 2008 and each FY thereafter)	Thanks to combustion control and correct operation of flue gas desulfurization systems, we were able to curb SO _x emissions to maintain the level of emissions per unit of power generated. We will continue our efforts to curb emissions through good management practices.	p. 60
	0.50 (g/kWh)	Maintain current level (about 0.5 g/kWh) (FY 2008 and each FY thereafter)	Thanks to combustion control and proper operation of flue gas desulfurization systems, we were able to curb NO _x emissions to maintain the current level of emissions per unit of power generated. We will continue our efforts to curb emissions through good management practices.	p. 60
	98%	97% (by the end of FY 2010)	The target for fiscal 2010 was exceeded thanks to steps to promote recycling of coal ash and reduce industrial waste generated by maintenance and operation of power stations. We will continue working to maintain our high recycling rate.	p. 61
	91% 5-point annual increase	At least 85% (by the end of FY 2010) At least 1-point annual increase	The FY 2008 target was achieved thanks to conscientious sorting and recycling of paper. We will continue to promote recycling to reduce disposal of non-industrial waste.	p. 62
	73%	At least 80% (by the end of FY 2010)	Thanks to efforts to promote green purchasing in accordance with the J-POWER Group Green Purchasing Guidelines, the rate rose by 4% from the previous fiscal year. We will intensify our efforts and continue working toward the FY 2010 target.	p. 62
	98% 3-point annual increase	At least 99% (by the end of FY 2010) At least 1-point annual increase	The FY 2008 target was met thanks to efforts to maximize use of recycled copy paper. We will continue to promote such efforts to further boost the percentage of recycled paper used.	p. 62
	91%	At least 90% (by the end of FY 2010)	Thanks to efforts to promote green purchasing in accordance with the J-POWER Group Green Purchasing Guidelines, the rate rose by 4% from the previous fiscal year, exceeding the FY 2010 target. We will continue such efforts so as to maintain this level and meet our target.	p. 62
	Consistent use of PDCA cycle	Continuous improvement of EMSs (FY 2008 and each FY thereafter)	Efforts were made to raise the level of environmental management through consistent implementation of the PDCA cycle. We will remain diligent in striving for continual improvement.	p. 65

Environmental Action Guidelines, p. 74 (Reference Data)

² LHV (lower heating value) estimated from actual HHV (higher heating value) using conversion coefficients supplied in the Agency of Natural Resources and Energy's Comprehensive Energy Statistics (2004 edition).

³ Figures are adjusted to compensate for changes in the scope of available data.