

(1) Initiatives to Address Global Environmental Issues

Amount of CO₂ Emission Reductions by Renewable Energy Facility (FY2017)

Note: Calculated using CO₂ emissions per electricity sales volume in FY 2017 (see p. 20)

Geothermal Power Facilities

Power Station	Existing facilities (approx. 218,000)								Planned (2,000)	Geothermal total
	Otake (Oita Pref.)	Hatchoubaru (Oita Pref.)	Yamagawa (Kagoshima Pref.)	Ogiri (Kagoshima Pref.)	Takigami (Oita Pref.)	Hatchoubaru Binary (Oita Pref.)	Sugawara Binary* ¹ (Oita Pref.)	Yamagawa Binary* ¹ (Kagoshima Pref.)	Otake* ² (Oita Pref.)	
Output	12,500	110,000	30,000	25,800	27,500	2,000	5,000	4,990	+2,000	520,200 t
FY2017 CO ₂ Emission Reductions	36,600 t	257,700 t	48,100 t	62,900 t	96,900 t	700 t	15,700 t	1,600 t	(as of July 31, 2018)	

*1 Developed by group company *2 The additional 2,000 kW is added output from the refurbishment of the Otake Power Station

Solar Power Facilities

Power Station	Existing facilities (approx. 90,800)					Solar power total
	Mega Solar Omuta (Fukuoka Pref.)	Omura Mega Solar* ¹ (Nagasaki Pref.)	Sasebo Mega Solar* ¹ (Nagasaki Pref.)	Installations at business sites, etc.	Other Mega Solar* ¹	
Output	3,000	17,480	10,000	Approx. 2,600	Approx. 57,700	31,600 t
FY2017 CO ₂ Emission Reductions	1,600 t	12,100 t	6,200 t	—	11,700 t* ²	

*1 Developed by group company *2 Calculated according to equity ownership in output of the Kyuden Group

(as of July 31, 2018)

Wind Power Facilities

Wind Power Facilities								Unit: kW		
Power Station	Existing facilities (approx. 68,000)						Planned (approx. 92,800)		Wind power total	
	Koshikijima (Kagoshima Pref.)	Noma-misaki (Kagoshima Pref.)	Kuroshima (Kagoshima Pref.)	Nagashima* (Kagoshima Pref.)	Amamioshima* (Kagoshima Pref.)	Washiodake* (Nagasaki Pref.)	Kushima* (Miyazaki Pref.)	Karatsu-Chinzei* (Saga Pref.)		
Output	250	3,000	10	50,400	1,990	12,000	64,800	Max. 28,000	38,600 t	
FY2017 CO ₂ Emission Reductions	100 t	800 t	Verification test facility	31,200 t	1,300 t	5,200 t	(as of July 31, 2018)			

*Developed by group company

Biomass Power and Waste Incineration Power Facilities

Power Station	Existing facilities (approx. 41,000)				Estimated (approx. 199,000)			Biomass total
	Miyazaki Biomass Recycle* ¹ (Miyazaki Pref.)	Fukuoka Clean Energy* ¹ (Fukuoka Pref.)	Reihoku* ² (1.4 million kW) (Kumamoto Pref.)	Matsuura* ² (700,000 kW) (Nagasaki Pref.)	Nanatsujima Biomass Power* ¹ (Kagoshima Pref.)	Buzen New Energy* ¹ (Fukuoka Pref.)	LLC corporation Shimomoseki Biomass Energy* ¹ (Yamaguchi Pref.)	
Fuel	Biomass (poultry manure)	General waste	Coal and multi-fuel combustion (wood chips)	Coal and multi-fuel combustion (sewage sludge)	Biomass (PKS, wood pellets, etc.)	Biomass (PKS, wood pellets)	Biomass (wood pellets)	75,700 t
Output	11,350	29,200	(Up to 1% mixed combustion by weight ratio)	(About 700 t/year)	49,000	74,950	74,980	
FY2017 CO ₂ Emission Reductions	28,400 t	37,000 t	9,100 t	1,100 t	(as of July 31, 2018)			2,154,600 t

*1 Developed by group company *2 Existing coal-fired thermal power station PKS: palm kernel shells

Hydroelectric Power Facilities*¹

Hydroelectric Power Facilities*

Unit: kW

Power Station	Existing facilities	Planned (approx. 76,000 (+7,300))			Hydropower total
	140 sites	Shin Kosa (Kumamoto Pref.)	Tsukabaru (Miyazaki Pref.)	Kamoshishi* ² (Kumamoto Pref.)	
Output	1,280,151	7,200 (+3,300)* ³	66,600 (+4,000)	1,990	2,154,600 t
FY2017 CO ₂ Emission Reductions	2,154,600 t	(as of July 31, 2018)			

*1 Includes facilities developed by group companies (excluding pumped-storage)

*2 Developed by group company

*3 Maximum additional output from facility refurbishment

Total

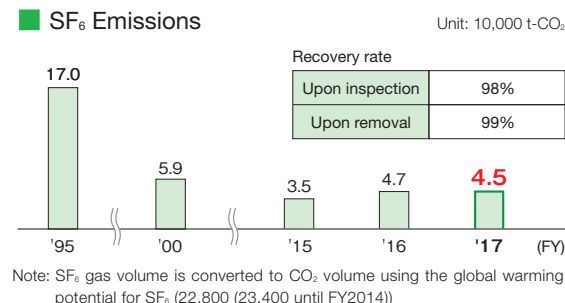
2,820,600 t

t= metric ton (tonne)

Kyushu Electric Power's Non-CO₂ Greenhouse Gas Emissions

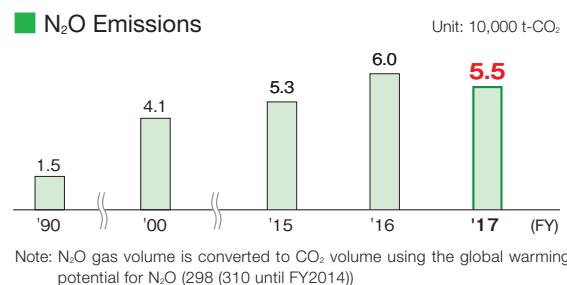
Sulfur hexafluoride (SF₆)

SF₆ is used in electrical equipment for its excellent insulating properties. We minimize atmospheric emissions upon the inspection and removal of equipment.



Nitrous oxide (N₂O)

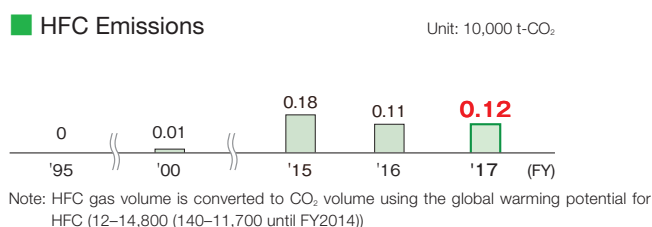
Because N₂O is generated mainly from the combustion of fuel at a thermal power station, the amount of N₂O generated fluctuates, depending on the operational status of the power station, but we are striving to reduce emissions by working on improving the total thermal efficiency and other aspects of thermal power.



Hydrofluorocarbon (HFC)

Hydrofluorocarbons are often used as a refrigerant in air conditioning equipment. We thoroughly prevent leaks, and recover and reuse HFCs when installing and repairing equipment.

We conduct thorough inspections of commercial refrigerators and other equipment that use fluorocarbons (including fluorocarbons subject to regulation), based on the Act on Rational Use and Proper Management of Fluorocarbons legislated in April 2015. When replacing or installing new equipment, we introduce equipment that does not use regulated fluorocarbons as a refrigerant.



Amounts of Fluorocarbons Subject to Regulation Refilled and Emissions at Kyushu Electric Power

We methodically collect fluorocarbons when inspecting or removing equipment that uses fluorocarbons (fluorocarbons subject to regulation), which can lead to the destruction of the ozone layer—equipment that includes air conditioners, refrigeration and air-conditioning equipment, and refrigeration/freezing equipment. When replacing such equipment, we introduce equipment that does not use fluorocarbons subject to regulation.

Since FY2000, emissions of specified fluorocarbons that have a highly negative impact on the ozone layer have been close to zero, except for natural leaks.

