

Appendix 2: Designated Reduction Rates for Technical Benchmarks

Emission type		Reduction Rate
Direct emissions: Emissions from stationary combustion sources.		$[(\text{Emissions per unit heating value of fuel in the base year} - \text{annual fuel emission benchmarks for each industry in the target year}) \div \text{emissions per unit heating value of fuel in the base year}] \times 100\%$.
Direct emissions: emissions from manufacturing process	Fluorine-containing gases (HFCs, PFCs, SF6 and NF3)	For emission sources established since 2005, the average removal rate plant-wide is 95% in the target year. For emission sources established before 2005, the average removal rate plant-wide is 85% in the target year.
	nitrous oxide	The average removal rate plant-wide is 50% in the target year.
	Manufacturing process of steel billets at integrated steel mills.	The reduction rate of emissions should reach 13% in the target year.
	Manufacturing process of cement clinker	The reduction rate of emissions should reach 7% in the target year.
	Other processes	The reduction rate of emissions should reach 3% in the target year.
Indirect emissions from electricity consumption.		The reduction rate of emissions should reach 6% in the target year.
Remark		
<ol style="list-style-type: none"> Entities should calculate their annual GHG emissions in the target year based on the sum of the reduction rates of the emission types listed in this Appendix. These calculations should be included in their self-determined reduction plans, allowing them to select appropriate reduction measures based on actual needs. Emissions per unit heating value of fuel, fluorine-containing gas removal rates and nitrous oxide removal rates are affected by changes in activity data. The activity data, emissions and removal rates in the base year should be calculated using a weighted average. Calculation formula for the reduction rate of "fluorine-containing gases" and "nitrous oxide": <ol style="list-style-type: none"> Reduction rate (%) = $[(\text{average removal rate of the entire plant in the target year} - \text{average removal rate of the entire plant in the base year}) \div (1 - \text{average removal rate entire plant in the base year})] \times 100\%$. Average removal rate plant-wide in the base year (%) = $[(\sum \text{Usage of the entire plant in the base year } i \times \text{GWPI} - \sum \text{GHG emissions after process use and equipment treatment in the base year}) \div (\sum \text{Usage of the entire plant in the base year } i \times \text{GWPI})] \times 100\%$. 		

$\text{GWPI}] \times 100\%$.

4. If the emissions per unit heating value of fuel from stationary combustion emission sources in the base year are superior to the fuel emission benchmarks of various industries in the target year, and the average removal rate of fluorine-containing gases and nitrous oxide in the base year is better than the plant-wide average removal rate in the target year, the reduction rate is calculated as zero.
5. For the calculation of indirect emissions from electricity use, the electricity generated from non-renewable energy sources in both the implementation year of the self-determined reduction plan and the target year should be calculated based on the weighted average of the emission factors of the non-renewable energy sources used in the base year.
6. Entities that decide to include the reduction of indirect emissions from purchased steam as their reduction measures should account for these emissions in both their base year and target year GHG inventories. Specifically, the GHG emissions calculated for both the base year and the target year must include indirect emissions from purchased steam.