

Calculation Standards of Environmental Information

Primary information	Definition, calculation method, etc.
Volume of fuel used (coal, natural gas, heavy oil, diesel, etc.) Amount of electric power used, amount of fuel used (by business sites and offices)	Calculated in accordance with the provisions of the Law Regarding the Rationalization of Energy Use.
Volume of industrial water used	Automated measurement data is collected by measuring instruments. Measuring instruments are calibrated in accordance with legal requirements.
Volume of drinking water used (by business sites and offices)	Totaled based on water usage volume indicated in bills from waterworks departments.
Volumes of chemicals used (limestone, ammonia)	Measured based on volumes of inputs to facilities for each chemical.
Power used for pumping water	Automated measurement data is collected by measuring instruments. Measuring instruments are calibrated in accordance with legal requirements.
Volume of steam, volume of hot water	The volumes of steam and of hot water are measured based on instantaneous values taken multiple times each month and calculations are performed using the average value. Annual total (t) = Monthly average value (t/h) × Annual operating time
Amount of copier paper purchased	Annual purchases of copier paper (A4 equivalent) are totaled.
Volume of chemicals handled, transferred, and released	Volumes handled, transferred, and released are calculated based on the Law concerning Pollutant Release and Transfer Register (PRTR Law), the PRTR Release Volume Calculation Manual (Ministry of Economy, Trade and Industry and Ministry of the Environment), and the Manual on Estimating Release and Transfer Volumes of Chemicals Subject to the Act on Promoting Chemical Substance Management in the Electric Industry (Federation of Electric Power Companies of Japan).
Volume of greenhouse effect gas released (CO ₂ , HFC, N ₂ O)	The volume is calculated by multiplying the volume of each type of energy used by the relevant energy conversion factor according to the method specified in the Law Concerning the Promotion of the Measures to Cope with Global Warming.
Volume of specified CFCs	Volume in possession: The volume of specified CFCs and other substances is totaled. Volume consumed: The refilling and recovery volumes specified in invoices from licensed CFC recovery and destruction businesses are totaled.
Volume of SF ₆ handled and released	Volume handled: The volume of SF ₆ gas in possession is totaled. Volume released: The volume is calculated by multiplying the volume that leaked (the annual SF ₆ refilling volume to related equipment) by the relevant release coefficient in accordance with the method specified in the Law Concerning the Promotion of the Measures to Cope with Global Warming.
Volume of SO _x , NO _x , and soot and dust released	Automated measurement data is collected by measuring instruments in accordance with the Air Pollution Control Law. Measuring instruments are calibrated in accordance with legal requirements.
Volume of waste water	Measurements are taken using measuring instruments and the volume is totaled.
COD release volume	The volume is calculated by multiplying the concentration of waste water (measured by a measurement certification business) by the volume of waste water in accordance with the method specified in the Water Pollution Control Law.

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Volume of waste released	<p>The volume is totaled using the values indicated in manifests* specified in the Waste Disposal and Public Cleansing Law. Driftwood in dam reservoirs is determined by calculating the volume of driftwood that is removed from the reservoirs.</p> <p>* Manifest: A management form that must be issued under the Waste Disposal Act when transportation and disposal of waste is outsourced to an outside service provider. The manifest indicates the weight of waste, the method of disposal, and other information.</p>
Volume of waste material effectively used	The volume of waste material that is reused or recycled and the volume of valuable material that is sold to outside service providers is totaled in accordance with the Waste Disposal and Public Cleansing Law and related notices.
Amount of electric power generated, amount of electric power sold	Automated measurement data is collected by measuring instruments. Measuring instruments are calibrated in accordance with legal requirements.
Thermal power average efficiency rate (at generation point) HHV basis	<p>Calculated using the following formula:</p> $\text{Amount of electric power generated (MWh)} \times 3,600 \div \text{Total heat input (excluding reheating and denitrification) (GJ)} \div 1,000 \times 100$