■ Avoided Emissions during product use

Scope of calculation

The scope of calculation is "Product use(Scope 3 Category 11 (Use of Sold Products))".

On average, our products are used over a period of 10 to 20 years. If analyzed from the perspective of the product life cycle, this means the period of product use accounts for over 90% of our overall CO2emissions. The impact other than "Product use" can be ruled out.

■ Percentages of CO₂ Emissions in Product Life Cycle From 2005 to the present, the period of "Product use" accounts for more than 90% of total CO₂ emissions.



Calculation Method

Lifetime *1CO2 emissions *2 per unit from major products *3× Sales quantity.

Reduction Effect as compared to if 2005-era products continued to be distributed.

- *1 Duration of use by product classification (defined by TOTO).(Set for approximately 10-20 years)
- *2 CO₂ emissions from consumption of water and energy based on specifications and usage models (based on the information published by industry associations and research articles, etc.) by sales areas.
- *3 Toilets, WASHLET, faucets, urinals and bathtubs.(urinals and bathtubs only in Japan)

[CO₂ emission coefficients from electricity (Japan)]

Average of CO_2 emissions coefficients (adjust basis) indicated in "Environment Action Plan by the Japanese Electric Utility Industry" by the Federation of Electric Power Companies of Japan.

[CO₂ emission coefficients from electricity (overseas)]

IEA (International Energy Agency), "CO2 Emissions from Fuel Combustion 2017."

[CO₂ emission coefficients from water (Japan)]

Japan Sanitary Equipment Industry Association, "CO2 Conversion Coefficients from Water."

[CO₂ emission coefficients from water (overseas)]

The figures are based on the factors of CO₂ emissions from plumbing equipment in China and other Asian countries, which are described in reports from the Ministry of the Environment, the Ministry of Economy, Trade and Industry and other research reports. They are set from 0.39kg-CO₂/m3 to 1.11kg-CO₂/m3 by sales areas. Some of the figures are based on their neighboring or similar countries.

[CO₂ emission coefficients from gas]

"Guidelines for Calculation of Greenhouse Gas Emissions (Version 4.3.1)" published by the Ministry of the Environment and the Ministry of Economy, Trade and Industry of Japan.

■ Avoided Emissions of water during product use

Calculation Method

Lifetime^{*1}Water consumption^{*2} per unit from major products^{*3}× Sales quantity. Reduction Effect as compared to if 2005-era products continued to be distributed.

- *1 Duration of use by product classification (defined by TOTO).(Set for approximately 10-20 years)
- *2 Water consumption based on specifications and usage models (based on the information published by industry associations and research articles, etc.) by sales areas.
- *3 Toilets, faucets, urinals and bathtubs.(urinals and bathtubs only in Japan)