

# Assessment of Greenhouse Gas Emissions from Product Transportation



Fujitsu Limited works to lessen our environmental impact along the supply chain for our Client Computing Device(CCD) products and Server(SV) products.

We started with CCD products in FY2019, and added SV products from FY2021.

In 2019, we set a goal to reduce our emissions from product transport 10% by 2030.

In 2020, we made progress by re-organization of our supply chain, but impacted by market & logistic changes related to COVID-19.

In 2021, our emissions from product transport increased by 1% comparing with 2020 due to the shortage of Ocean service and shift to Road service.

But in terms of the target set in 2019 (i.e. 10% reduction by 2030), our emissions from product transport in 2021 was reduced by 19% comparing with 2019.

Meanwhile, we started to apply fuel-based method to the truck in Japan partly where we can get such data as the calculation approach since fuel-based method is more accurate to monitor emissions precisely. Also it helps to take countermeasures more effectively to reduce emissions.

Due to these reasons, we show Table 2 for emissions from product transport for CCD and SV products (tonne-kilometer method and fuel-based method), in parallel with Table 1 for emissions from product transport for CCD products (tonne-kilometer method) in comparison with the previous years.

Under these conditions, we set a new goal to reduce our emissions from product transport 10% from the value of FY2021 in Table 2 by 2030.

Our assessment of emissions includes well-to-wheel GHG emissions from all modes of freight transport utilized (road, air, sea and rail-our company does not transport through inland waterways). All emissions were calculated using the Global Logistics Emissions Council Framework for Logistics Emissions Methodologies (GLEC Framework).

**Boundary of emission calculation:**

Transportation routes of CCD products and SV products (from FY2021) for commercial market, from manufacturing bases in Europe, China, and Japan.

**Calculation approach:**

The tonne-kilometre calculation for Table 1 while tonne-kilometre method and fuel-based method for Table 2

**The source of CO<sub>2</sub>e intensity factors:**

Global Logistics Emissions Council Framework for Logistics Emissions Accounting and Reporting Version 2.0

**Table 1: Emissions from Product Transport (metric tons-CO<sub>2</sub>e) for CCD products (tonne-kilometer method)**

Mode	FY2019	FY2020	FY2021	*a
Road	9280	7791	10600	
Air	21950	17554	15153	
Sea	947	530	368	
Inland waterways	-	-	-	
Rail	128	11	29	
Total	32305	25886	26150	*b

**Table 2: Emissions from Product Transport (metric tons-CO<sub>2</sub>e) for CCD and SV products (tonne-kilometer method and fuel-based method)**

Mode	FY2021	*a	grams of CO <sub>2</sub> e per tonne-km
Road	11753		392
Air	15629		645
Sea	368		5
Inland waterways	-		-
Rail	29		17
Total	27779	@, *c	217

<Notes>

\*a: The period of the fiscal year is from April 1 to the following year March 31. e.g. FY2019 : April 1, 2019 ~ March 31, 2020

\*b: Transportation of all products shipped from CCD product manufacturing bases and the warehouses where CCD products are brought, are included.

\*c: Transportation of all products shipped from CCD and SV products manufacturing bases and the warehouses where CCD and SV products are brought, are included.

@: These are results for absolute GHG emissions which are assured by the third-party.

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