

In 2020, following Covid crisis, Alstom was forced to increase the air freight to rapidly recover the lost time due to delays in operations. A significant increase in CO₂ emissions was observed during this period. In 2021, efforts to increase sea freights were intensified, helped by a return to a relative normality in production activities, which brought a significant reduction in CO₂ emissions, even with the integration of Bombardier Transportation. The total reported emissions in metric tons of CO₂ equivalent related to transports have decreased by 18% mainly due to the high use of sea freight by using logistics platforms to consolidate the shipments. This is part of targeted action plans to reduce CO₂ emissions from the supply chain activities of all production sites worldwide. Comparing the CO₂ emissions to the context previous to the Covid period, in 2021 Alstom increased its carbon footprint related to transport by around 50% for standard transportation mainly due to the integration of Bombardier Transportation.

Currently, Alstom is still facing difficulties due to the Covid-19 crisis that changed completely the scenario of transportation activities worldwide. In this sense, several impacts could be emphasized, such as: port congestion, lack of vessel and increase in the transport time, which continue to force the Group to use transportation solutions less CO₂-friendly.

Nevertheless, the Group is continuously reinforcing its global strategy to reduce CO₂ emissions from logistics flows especially by developing a dedicated platform to easily monitor and report the CO₂ emissions of each transport provider and by focusing on the consolidation of containers and the reduction of the shipped volume. Critical flows are currently reviewed quarterly by the procurement and supply chain teams. This has contributed positively to the reduction of CO₂ emissions of the Group. The progressive deployment of the logistics flow optimizations and suppliers' engagement on the new perimeter should bring consistent reduction of CO₂ emissions in the coming years.

CO ₂ emissions related to logistics (in kilotonnes CO ₂ eq.)	2019	2020	2021
Standard Transport (SMC)	18	33	27 (*)
Exceptional Transport	11	7	6 (*)

Source: Alstom/Logistics Department.

(*) It should be noted that the Bombardier Transportation legacy activities are progressively integrated in the scope and figures only reflect partially the full perimeter activities.

Summary Alstom Carbon footprint

Green House Gases Emissions (in kilotonnes CO ₂ eq.)	2019/20	2020/21	2021/22
Scope 1 Direct CO ₂ emissions related to the consumptions of natural gas butane, propane, coal and oil ⁽¹⁾	52	49	100
Scope 1 CO ₂ emissions from company cars (using gasoline or diesel oil)	5	4	6
Scope 1 Other direct CO ₂ emissions related to HFC fugitive emissions – Scope 1	1	1	2
Scope 2 Indirect CO ₂ emissions related to the consumption of steam, heat network and electricity ⁽²⁾ – Scope 2 market based	66	45	122
Total CO₂ emissions related to energy consumption and other direct emissions – Scopes 1 and 2	124	99	230
Scope 3 CO ₂ emissions related Use of Sold Products	25,000 (*)	21,000	32,000
Scope 3 CO ₂ emissions related to business travel	26	5	6
Scope 3 CO ₂ emissions related to logistics	29	40	33

Source: Alstom Teranga.

(1) As regards natural gas, butane and propane, CO₂ emission factors come from "IPCC Guidelines for National Greenhouse Gas Inventories (2006)".

(2) The Scope 2 emissions are reported on market-based. Emission factors for electricity come from AIB (2020 data base) or, if not available IEA (2019 data base).

(*) Methodology evolved between 2019/20 and 2020/21 so data reported are not be fully comparable.