The decarbonization index: Collecting greenhouse gas emissions per vehicle

24/07/2026 Porsche has a clearly defined mission: to reduce greenhouse gas emissions across the value chain and throughout the entire life cycle of its vehicles.

Decarbonization programme

The vehicle product strategy is one of the greatest levers available to Porsche to reduce its existing CO2 footprint. The sports car manufacturer has defined four key levers for decarbonization along the value chain of its own vehicles:

1. Vehicle product strategy

The vehicle product portfolio forms the core of Porsche's activities to achieve the climate targets that

have been set. Porsche AG is flexibly positioning its range of combustion-engined, plug-in hybrid and all-electric vehicles. This caters for the fact that the ramp-up of electrification depends crucially on customer demand, the development of electromobility in the different regions of the world and the regulatory landscape. In response to the current market situation, Porsche decided in 2025 to realign its vehicle product strategy. This includes postponing the market launch of certain all-electric vehicle models and continuing to offer combustion and hybrid models for a longer period. In line with the new market realities, Porsche intends to increase its share of electrified vehicles, albeit on a smaller scale than originally planned. In 2025, the share of electrified vehicles delivered to customers—either all-electric or plug-in hybrids—was 34.4%.

2. Supply chain

Extracting and processing raw materials and refining them through to the finished components generates greenhouse gas emissions along the supply chain on account of the energy and processes used. Porsche aims to reduce CO2 emissions in its supply chain by using electricity from renewable energy sources, switching to processes with lower CO2 emissions, and using secondary materials. Climate targets are therefore integrated into vehicle development at an early stage, and sustainability requirements are taken into account as binding specifications for direct suppliers within the procurement processes. The company also works with raw material producers to use low-carbon and recycled Aluminium and to develop closed-loop systems for battery materials and recycling.

3. Vehicle production and own sites

Porsche's own vehicle production is an important lever for achieving the decarbonization targets it has set itself. Since 2017, Porsche's own vehicle production and development sites in Zuffenhausen and Leipzig have been using electricity exclusively from renewable energy sources – like sun, wind and hydropower. These sites also use exclusively certified biomethane from waste and residual materials to generate space and process heat and for production processes.

4. Use phase

Porsche is continuously working on decarbonizing the use phase of its vehicles. For electric vehicles, the CO2 footprint of the use phase depends on the type of electricity generation. As new BEVs increase the demand for electricity in the markets, Porsche is involved in long-term indirect commitments with operators of wind and solar plants to promote the expansion of renewable energies. In addition, Porsche is also committed to solutions, such as the use of synthetic, liquid fuels referred to collectively as eFuels, to further reduce CO_2 emissions from vehicles with combustion engines.

Measurement of the decarbonization programme

Porsche measures the success of its decarbonization program with the decarbonization index (DCI). The DCI calculation covers the central parts of the Porsche AG Group. For the purpose of recording greenhouse gas emissions, these are, above all, Porsche AG and Porsche Leipzig GmbH. Outside the Porsche AG Group, the greenhouse gas emissions from the supply chain and particularly from the vehicle use phase are also relevant. The DCI maps the model-based average greenhouse gas emissions per newly produced vehicle along the value chain—from production and use to end of life. Greenhouse gas emissions are presented in tons of CO2 equivalents per vehicle (tCO_2e/vehicle).

Among other things, the DCI is based on standardized life cycle assessments which Porsche performs in accordance with the ISO 14040 and ISO 14044. Individual assumptions and values as well as data from life cycle inventory databases are used for these. For instance, the greenhouse gas emissions in the use phase are calculated over 200,000 km per vehicle with reference to average consumption figures of the primary market regions. The consumption figures correspond to the respective statutory review cycles. For electric vehicles, the GHG intensity of the electricity used to charge them is calculated on the basis of energy mixes of the primary market regions. Emissions from supply chains and recycling stem from the vehicle life cycle assessments. Vehicle maintenance is not included in the calculation. As a strategic metric with a transparent and comprehensive calculation, the DCI is intended to support Porsche in gradually reducing its CO2 footprint.

In the year 2025, the DCI stood at 60.25 t CO2 per vehicle, which represents a decrease of 8.9% compared to the base year 2023 and 3.7% compared to the prior year 2024.

The successful decarbonization of vehicles requires consistent management from product strategy to the value chain. Porsche evaluates its vehicle product strategy in preparatory processes and committees and develops recommendations based on input from the relevant internal specialist departments. Decarbonization targets are directly integrated into both the product strategy and the product development process. They are initially defined by the committees of the Sustainability Organization. These targets are then reviewed as part of the target-setting process for the vehicle projects and approved by the responsible committee of the Executive Board. Porsche has established a CO2 target control system in its vehicle projects. Using this system, it can forecast greenhouse gas emissions continuously during the product emergence process, define reduction measures, and make decisions based on DCI indicators that reflect the economic efficiency of a decarbonization measure.

Decarbonization as a component of remuneration

The DCI targets have been incorporated as part of the “ESG factor” in the remuneration system for the Executive Board of the Porsche AG and the management of Porsche AG and selected group companies. This target was also implemented for Porsche AG’s employees covered by collective bargaining agreements.

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Consumption data

Macan Turbo (WLTP, preliminary values)*: Electrical consumption combined: 20.6 – 18.3 kWh/100 km; CO_2 emissions combined: 0 g/km; CO_2 class: A

*Further information on the official fuel consumption and the official specific CO_2 emissions of new passenger cars can be found in the "Leitfaden über den Kraftstoffverbrauch, die CO_2-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Fuel Consumption, CO_2Emissions and Electricity Consumption Guide for New Passenger Cars), which is available free of charge at all sales outlets and from DAT (Deutsche Automobil Treuhand GmbH, Helmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, www.dat.de).

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