

Climate Protection Glossary

Alternative propulsion methods

Alternative propulsion methods include all propulsion systems that differ from conventional methods powered by fossil fuels. For Fraport, these currently include mainly battery-powered electric vehicles. In the future, vehicles or aircraft that use hydrogen or fuel cells could also be used.

Carbon neutrality

Carbon neutrality is achieved when unavoidable CO₂ emissions from a company or a product are offset by CO₂ reductions elsewhere, or by purchasing carbon credits to offset these.

Carbon zero

Carbon zero – or net zero carbon – means that no CO₂ emissions are produced in the first place due to a company's actions. As a result, no compensatory offsetting measures need to be taken. Fraport consciously avoids offsetting and has made carbon zero its goal in areas over which it has control.

CO₂ (or carbon) emissions

CO₂ emissions occur when carbon dioxide is discharged into the air.

Decarbonization masterplan

Fraport AG's decarbonization masterplan is a position paper which outlines the company's strategic principles for decarbonization and specifies a framework for the successful implementation of the measures.

Decarbonization

Decarbonization refers to the adjustment of economic activities and actions by a company to lower or to eliminate completely its CO₂ emissions. The long-term goal of many companies is to operate in a CO₂ neutral or zero carbon way via decarbonization.

Digital energy network

A digital energy network enables the optimized and needs-specific use of electricity from renewable sources by establishing storage facilities and by introducing a digital meter network.

Electromobility

Electromobility is the concept of using battery-powered electric vehicles for the transportation of people and goods.

Fully-consolidated Group companies covered by Fraport's climate policy

This term refers to Fraport's Group companies and subsidiaries that are included in the company's decarbonization strategy. To be considered a fully-consolidated Group company, Fraport must own more than 50 per cent of its shares or hold a controlling stake under a shareholder agreement. To be covered by the climate policy, domestic subsidiaries need to involve energy consumption of ≥0,5 GWh annually. Group companies outside Germany are covered by the climate guidelines if they are active as airport operators.

Green energy

Green energy encompasses any form of energy from renewable sources that emit lower greenhouse gas emissions compared to fossil-fuel sources. These include photovoltaic systems, solar and geothermal energy, hydroelectricity, and wind turbines.

Greenhouse gases

Greenhouse gases are various gases that contribute to the greenhouse effect. Gases include carbon dioxide, methane, hydrofluorocarbons, and nitrous oxide.

Offsetting

By purchasing CO₂ certificates from climate protection projects, companies can compensate or ‘offset’ harmful carbon emissions that they cause. These projects can support the expansion of solar energy or hydroelectricity, for example. Fraport’s view is that offsetting is not the solution to combating climate change. The focus needs to be placed on avoiding and lowering emissions.

Photovoltaics

A photovoltaic system uses solar cells to convert some of the sun’s rays into electricity. At Fraport, photovoltaic systems are already being used in various locations and further expansion is planned.

Power Purchase Agreement (PPA)

A PPA is an electricity supply contract with an independent power producer. PPAs are very important to the energy transformation because they offer system operators planning certainty when building new systems to generate energy from renewable sources. Fraport has concluded a PPA and from 2026 it will receive wind energy from a newly built offshore windfarm in the North Sea that is expected to meet almost Fraport’s entire needs at Frankfurt Airport.

Power to liquid

This term refers to a method for turning electricity into liquid fuel. The process is of particular interest to the aviation industry because of the potential to produce kerosene in a more environmentally-friendly way. Fraport AG will provide the necessary infrastructure for this.

Pre-Conditioned Air (PCA)

Pre-conditioned air units pump pre-conditioned air into the cabin of the aircraft while it is parked and being prepared for its next departure. Without a PCA unit, the aircraft has to run its auxiliary turbine to regulate the temperature of the aircraft cabin, which produces air pollutants, noise and CO₂ emissions. A PCA unit, however, ideally produces air conditioning using energy from renewable sources, thus significantly reducing noise and emissions.

Renewable energy

Renewable energy comes from sources that are available in almost unlimited quantities or which regenerate themselves over a short period.

These characteristics mean that renewable energies can be described as sustainable, a feature which distinguishes them from fossil-fuel energy sources. For Fraport, wind and solar energy are particularly relevant in this context.

Scopes 1-3

Greenhouse gas emissions can be classified into various ‘scopes’, depending on their controllability and origin. This classification is based on internationally recognized standards under the Greenhouse Gas Protocol and is a key concept for measuring greenhouse gases and for reducing them effectively on this basis. Fraport AG’s climate policy is targeted toward emissions under Scope 1 and Scope 2, as these fall under its direct control.

Scope 1 comprises direct emissions from sources that are owned and/or controlled by Fraport AG. For example, emissions from combustion processes in the company’s own or controlled heating systems and fossil fuel-powered vehicles.

Scope 2 captures emissions that are emitted indirectly by the polluter. These emissions can be specifically attributed to the polluter but are not physically generated by them. For Fraport, this includes emissions from the production of the electricity, heating, or cooling that it purchases.

Scope 3 refers to indirect emissions that are the result of activities by the polluter, but which are not owned by the polluter and/or cannot be controlled by them. For Fraport, examples of these include emissions from aircraft movements at take-off and landing up to an altitude of 3000 feet (the landing/take-off cycle), as well as activities such as the arrivals and departures of passengers.

Smart air-conditioning

Smart air-conditioning facilitates the needs-driven and efficient management of temperature adjustments inside buildings by using automated air-conditioning systems.

Sustainable Aviation Fuel (SAF)

These aviation fuels are produced from feedstock of non-fossil-fuel origin. A distinction is made between biokerosene, which is derived from sustainable biological feedstock such as suitable residual materials or waste, and synthetically produced fuel, which is based on power generated from renewable sources. At present, these sustainable aviation fuels are added to conventional, crude-oil-based kerosene in line with international standards.