

**2023-2025**

## **CLIMATE AND ENVIRONMENTAL STRATEGY**

### **CEO's Message**

The transition to zero- and low-emission aviation is high on Avinor's strategic agenda. We are working both to reduce Avinor's own emissions and together with the industry to reduce the total emissions from aviation. This is a process that requires targeted and systematic efforts over time. Avinor has the responsibility to facilitate the infrastructure for aviation, but we must also be a driving force for the transformation of the industry as a whole. When aviation succeeds in transitioning to fossil-free operations, it has every opportunity to be the most environmentally friendly mode of transport. Aviation requires few natural interventions. From 800 meters to 3 kilometers of runway is enough to get around in Norway and further out into the world. At the same time, Avinor is responsible for minimizing how our activities affect nature and the local environment at and around the airports. This is a responsibility we take very seriously.

It is important to have a complete overview of Avinor's total climate and environmental impact, as well as concrete, targeted measures for how we will reduce the impact. The EU taxonomy and the introduction of the EU's Corporate Sustainability Reporting Directive (CSRD), which comes into force from 2024, also impose new and more comprehensive reporting requirements.

Avinor's climate and environmental strategy sets a clear direction for how we will continuously improve our own environmental performance. We will be an active driving force for sustainable aviation, both in the short and long term, within six areas: climate, energy, biodiversity, circular economy and waste management, water and soil, and noise.

The strategy is a tool to emphasize Avinor's climate and environmental goals in the company's decisions. This document is also a guide for how climate and the environment should be central in the choices made for planning, establishing, developing, and daily operation of buildings and infrastructure.

To succeed in transitioning to fossil-free aviation and reduce our environmental impact as much as possible, we must work with climate and environmental goals throughout the organization. It is a leadership responsibility and a task for all employees at Avinor.

Abraham Foss CEO Avinor

### **AVINOR'S CLIMATE AND ENVIRONMENTAL POLICY**

This policy was adopted on October 31, 2023, and describes overarching principles for climate and environment at Avinor. The purpose is to improve Avinor's own environmental performance and for the company to be an active driving force for

sustainable aviation. Avinor shall comply with regulatory and self-imposed requirements, and environmental management shall be certified according to ISO 14001, which ensures systematic coordination and follow-up of environmental work.

Avinor shall have a complete overview of its total climate and environmental impact and work actively to reduce this:

- Avinor's climate and sustainability goals shall be emphasized in Avinor's decisions.
- Avinor shall be an active driving force for sustainable aviation. It shall be easy for travelers to make sustainable choices at our airports.
- Avinor shall set science-based short-term and long-term climate goals and annually reduce emissions from its own operations.
- Avinor shall work together with the rest of the aviation industry and facilitate that Norwegian aviation reaches the goal of being fossil-free by 2050.
- Activities at Avinor's airports shall not cause new soil contamination or reduced environmental conditions in the water environment.
- Avinor shall operate and develop airports in a way that ensures that the negative impacts on nature are minimized. Nature of national and significant regional interests shall be particularly emphasized, and positive measures shall be implemented where possible.
- Avinor shall work according to circular economic principles with the best possible use of material resources.
- Avinor shall actively work to limit noise pollution from aircraft and helicopter traffic for residents in the vicinity of the airports.
- Avinor wants to act and collaborate with suppliers and partners who take the environment seriously. Where possible, Avinor shall prioritize choosing environmentally labeled products and services and collaborate with environmentally certified suppliers and partners.

Climate and the environment shall be central in the choices made for planning, establishing, developing, and operating Avinor's buildings and infrastructure.

## **CLIMATE**

Human-caused greenhouse gas emissions are a global problem that leads to irreversible climate changes. The world must be a near-zero-emission society by 2050 to achieve the goals of the Paris Agreement. This requires extensive emission-reducing measures in all sectors, including aviation.

The largest aviation-related greenhouse gas emissions come from the actual air traffic, followed by passengers' and employees' transport to and from the airports (ground transportation), and finally, greenhouse gas emissions related to the operation of the airports.

Environment and sustainability are an important part of Avinor's corporate strategy, with a particular focus on climate and energy. In collaboration with airlines and other stakeholders, Avinor has implemented a number of emission-reducing measures. Zero- and low-emission aircraft for passenger traffic are under development. The airspace is being optimized. Sustainable aviation fuel is already in use, and increased production and phasing in will be crucial to reducing greenhouse gas emissions from aviation.

There is a need for increased efforts and close cooperation between many stakeholders to achieve the goal of Norwegian aviation being fossil-free by 2050.

Avinor's stakeholders have increasing expectations for the company's climate work, and the financial market, among others, is concerned with climate risk.

Climate risk involves both how the physical consequences of climate change will affect nature and society, and what the transition to a net-zero-emission society will entail. Avinor works systematically to reduce both physical climate risk (climate adaptation) and transition risk.

**Long-term goal:** Facilitate that Norwegian aviation reaches the goal of being fossil-free by 2050. **Short-term goal:** Avinor commits to setting both short-term and long-term climate goals for its own operations that are in line with the Science Based Targets initiative (SBTi). 25 percent curved approaches (RNP AR) at Oslo Airport by 2025.

**Measures:**

- Transition fossil-fueled equipment to electric, hydrogen, or biogas where possible, and otherwise reduce greenhouse gas emissions using advanced biodiesel.
- Establish a biogas plant for the supply of electricity and district heating to Svalbard Airport.
- Be a driving force for increased production and phasing in of sustainable aviation fuel.
- Be a driving force for increased and early use of zero- and low-emission aircraft.
- Optimize airspace, approaches, and taxiing to reduce emissions.
- Implement curved approaches at all Avinor's long-runway airports by 2028.

**Buildings and infrastructure** shall be designed for increased climate stress, such as extreme weather, increased precipitation, wind, etc., both for new buildings and when upgrading existing buildings.

**KPIs:**

- Own greenhouse gas emissions, annual reporting according to SBTi requirements.
- Proportion of electric vehicles (cars/vans).
- Proportion of curved approaches at Oslo Airport.
- Proportion of continuous descent operations (CDO).

**ENERGY**

Avinor has significant energy consumption, and with the charging of vehicles and the eventual phasing in of electrified aircraft, energy consumption will increase.

The energy that supplies Avinor's buildings and infrastructure mainly comes from purchased electricity. Some airports are connected to district heating networks. In addition, some airports have self-produced energy from seawater, geothermal energy, and solar.

The energy is used for, among other things, heating, cooling, lighting, runway systems, and other technical equipment. By reducing its own energy consumption and simultaneously switching to self-produced renewable energy, the energy can be used in other areas that contribute to further cuts in greenhouse gas emissions, such as a transition from fossil to electric vehicles.

With a focus on innovation in the choice of energy solutions, Avinor is also helping to develop the energy market in a more advanced and cleaner direction.

In Avinor's corporate strategy 2022-2025, it has been decided that the company shall be a driving force for new energy carriers (electricity and hydrogen) for zero- and low-emission aircraft and consider establishing its own electricity production.

**Long-term goals:**

- Facilitate that all Avinor's airports have sufficient charging and/or hydrogen infrastructure.
- Establish own energy production at selected airports.

**Short-term goals:**

- Take a leading role in the energy transition at the airports and have pilot airports with infrastructure for zero- and low-emission aircraft in the early phase.

- Reduce purchased energy to 225 GWh in 2025.

**Measures:**

- Establish sufficient, standardized, scalable charging infrastructure for vehicles.
- Work with partners to facilitate charging and/or hydrogen infrastructure for aircraft.
- Increase competence in operations (SD systems and EOS).
- Invest in profitable energy measures.
- Expand solar power at profitable locations.

**KPIs:**

- GWh purchased energy.

**BIODIVERSITY**

Avinor's airports are surrounded by nature and green areas. Many are located in and near valuable natural areas such as species-rich meadows, wetlands, spawning areas, and salmon rivers.

Avinor negatively affects nature through, among other things, land use and emissions, and sometimes positively through management and protection from traffic. At the same time, the airports are also dependent on nature for services such as flood control, water and soil purification, and raw materials.

Avinor indirectly affects nature through its own procurements and requirements for contractors, and through the sale of goods at the airports. Globally, airports have taken an important role in the fight against the trade in endangered species.

The UN's nature agreement outlines a vision for 2050 where nature is valued, conserved, restored, and wisely managed. The agreement states that we must "halt and reverse" the loss of nature by 2030 with four overarching and 23 specific sub-goals, including reducing the loss of areas with important biodiversity to near zero, ensuring that all nature is managed sustainably, restoring 30% of degraded nature by 2030, and that businesses must take responsibility by monitoring, assessing, and disclosing nature risks, as well as promoting sustainable production patterns.

The government's ownership report "A Greener and More Active State Ownership" describes expectations that state-owned companies set goals and implement measures to reduce negative impacts on biodiversity and ecosystems, and report on goal achievement according to recognized nature risk standards. It also mentions nature-positive business models that go beyond just reducing negative impacts on nature.

Avinor has long mapped and had an overview of natural values at and around the airports and used this in operations and planning. Environmental requirements are set in large development projects and in several contracts. To meet expectations and requirements, efforts must be further systematized and strengthened.

**Long-term goals:**

- Work systematically to reduce own negative impact and increase positive impact on biodiversity and ecosystems.

**Short-term goals:**

- Minimize the loss of all nature and avoid interventions that affect endangered or near-threatened habitats and species.
- Each airport shall implement at least one positive measure by 2030.

**Measures:**

- The hierarchy of measures, alternative assessments, and knowledge of natural values shall be used from the early phase in planning, projects, and operations.
- Documented alternative assessments shall always be carried out in the early phase if interventions in areas with national and significant regional interests are relevant.
- The alternative assessments shall be emphasized in the decision-making process.
- Establish land accounts.
- Map invasive species and implement measures where necessary.
- Map and follow up on nature risks.
- Set requirements in procurements and contracts that promote deforestation-free value chains.

**KPIs:**

- Net number of hectares of interventions in areas with national or significant regional value.
- Number of hectares of converted arable land.
- Proportion of airports with positive measures implemented.
- Proportion of airports that have mapped invasive species.

**CIRCULAR ECONOMY AND WASTE MANAGEMENT**

The extraction and use of natural resources have increased significantly over the past 20 years and are expected to double between 2015 and 2050. A greater emphasis on the circular economy is essential to achieving global climate goals and the UN's sustainability goals.

The circular economy is about reducing the consumption and production of new goods and instead reusing and recycling what already exists. This means that materials, products, and resources are not discarded but kept in the cycle for as long as possible. In this way, we can save nature from unnecessary resource extraction and help stop the loss of biodiversity and cut greenhouse gas emissions.

The transition to a more circular economy often requires that the need for materials is met in new ways, that new and more sustainable products and business models are developed, and that materials are used in new ways.

For many companies, there is a risk associated with linear value chains, and the transition to more circular value chains may be necessary for future access to inputs and continued operations. At the same time, more circular processes and business models can provide cost savings or create new competitive advantages and business opportunities.

Avinor shall work according to circular principles. This involves seeking circular solutions, materials, and products that have the lowest possible environmental impact, last a long time, can be repaired and upgraded, and reused.

When products can no longer be used in their original form, the materials should be recycled and used as raw materials in new production. This applies to Avinor's own activities and in collaboration with suppliers, partners, and others.

**Long-term goals:**

- Increase reuse and circularity with an ambition of zero waste - only resources in the cycle.

**Short-term goals:**

- Reduce the amount of residual waste from regular operations by 25% by 2025, and reduce the total amount of waste (reference year 2019).
- Continuously reduce food waste and be a driving force for unsold food to be utilized (donation, sale at a reduced price, etc.).
- Reduce the use of plastic and ensure proper handling of plastic and plastic waste throughout the value chain.

**Measures:**

- Develop routines for, and showcase, good solutions for reuse.

- Develop requirements in collaboration with relevant professional environments for contracts and procurements.
- Have good solutions that facilitate proper source sorting, repair, and reuse.
- Phase out the use of disposable items where possible.
- Map the extent and solutions to minimize the amount of plastic and microplastics.

**KPIs:**

- Sorting rate (%) and development of waste amount (tons).
- Food waste (g)/pax and portions donated/sold at a reduced price.

**WATER AND SOIL**

Various types of pollution and emissions can have negative effects on the environment. Both the Water Framework Directive and the EU's announced Soil Health Law have ambitious goals for the good status of Europe's water and land areas. The risk of water and soil contamination from the current operation of the airports is mainly related to aircraft de-icing, runway de-icing, fire training, and the risk of fuel leaks from tanks and during refueling.

All Avinor's airports have valid discharge permits in accordance with the Pollution Control Act, which, among other things, sets requirements for the maximum use of chemicals for fire training, aircraft and runway de-icing, and obliges the company to reduce its emissions as far as possible without unreasonable costs.

There is pollution associated with historical activities and spills at Avinor's airports. The previous use of PFAS-containing fire foam has led to contamination of the soil at several of Avinor's fire training sites, as well as other areas historically used for training activities. These pollutants still contribute to some PFAS leaking into the environment around the airports. Avinor has initiated extensive cleanup work to prevent PFAS compounds from spreading in nature.

**Long-term goals:**

- Activities at Avinor's airports shall not cause new soil contamination or reduced environmental conditions in the water environment.
- Existing soil contamination shall be managed in accordance with regulations and not cause harm to health and/or the environment.
- Avinor shall contribute to the national goal of reducing PFAS emissions.

**Short-term goals:**

- Have updated and relevant discharge permits according to the Pollution Control Act and comply with these.
- Facilitate the reduction of the use of aircraft and runway de-icing chemicals.
- Clean up PFAS-contaminated areas in accordance with orders from the Norwegian Environment Agency.
- Choose products and chemicals with the least risk to the environment and be a driving force for the most environmentally friendly chemicals to be used throughout aviation.

#### **Measures:**

- Carry out cleanup of PFAS-contaminated sites at two airports per year in the period 2023-2027.
- Monitor the use of chemicals and take measures where necessary to prevent reduced environmental conditions.
- Standardize and collaborate to reduce the consumption of de-icing chemicals.
- Be a driving force for the use of safe and sustainable chemicals and products.

#### **KPIs:**

- Number of acute, unintended discharges to soil and water.
- Exceedances of permitted chemical quantities in the discharge permit.
- PFAS: Number of sites (airports) where measures have been implemented.
- PFAS: Amount of PFAS (kg) removed from the cycle through removal or containment measures.
- Number of airports with reduced conditions in the water environment.

### **AIRCRAFT AND HELICOPTER NOISE**

Most airports are located in areas with low population density. Of all those considered noise-exposed (SPI) in Norway, 2% are exposed to aircraft noise (SSB 2019). The development of the aircraft fleet has moved towards quieter aircraft, so that even though there are more aircraft movements, the noise development, for example at Gardermoen, remains unchanged.

Avinor shall actively work to limit noise pollution from aircraft and helicopter traffic for residents in the vicinity of the airports.

The introduction of curved approach and departure procedures at the airports directs aircraft and helicopter traffic more outside where people live and is one of the most

important measures to reduce noise pollution, while shorter flight paths also result in lower greenhouse gas emissions.

Avinor is responsible for mapping noise around the company's civil airports. Such noise mapping shall show aircraft noise zone boundaries according to the definitions in the Ministry of Climate and Environment's guideline T-1442. The work is proceeding according to plan, and the noise zone maps are updated at given intervals. The results are continuously sent to the respective municipalities. The municipalities shall incorporate these aircraft noise zones into their municipal and zoning plans according to the Planning and Building Act, to take necessary account of aircraft noise pollution in their land use planning.

Noise is unwanted sound and is considered pollution according to the Pollution Control Act. The authorities have set limit values for noise outside homes and other noise-sensitive buildings.

**Long-term goals:**

- Avinor shall actively work to reduce noise pollution from aircraft and helicopter traffic for residents in the vicinity of the airports.
- Increase the percentage of curved approaches (RNP AR).
- Eliminate night departures for all aircraft with EPN88dB at Oslo Airport.

**Short-term goals:**

- 25% curved approaches (RNP AR) at Oslo Airport in 2025.

**Measures:**

- Develop procedures for curved approaches for eight new airports by 2025.
- Implement curved approaches at all Avinor's long-runway airports by 2028.
- Helicopter noise insulation at Bergen Airport Flesland (5 units by the end of 2026).
- Physical measures in the form of passenger bridges to the aircraft, parking garages, and improvement of the facades of existing buildings, in addition to organizational measures at Harstad/Narvik Evenes Airport (EVE).

**KPIs:**

- Number of new established and initiated RNP AR (curved approach and departure routes).
- Proportion of completed curved approaches at Oslo Airport.