



FAQ: Airports and the NetZero2050 Commitment

What have these airport operators committed to do?

The ACI EUROPE commitment engages the whole European airport industry to eliminate its carbon footprint at the latest by 2050. Based on the 2019 air traffic volumes and the estimated carbon intensity of the industry (1.31 kg CO₂/pax, derived from data provided under *Airport Carbon Accreditation*), this means that an annual footprint of 3.14 million tons of CO₂ would be eliminated.

What does “net zero” mean exactly?

According to the Intergovernmental Panel on Climate Change (IPCC), net zero carbon emissions are achieved “*when anthropogenic CO₂ emissions are balanced globally by anthropogenic CO₂ removals over a specific period*”.

This means that the concept of ‘net zero carbon emissions’ is different from the term of ‘carbon neutrality’ as used in conjunction with the *Airport Carbon Accreditation* programme:

Carbon neutrality requires reducing emissions as much as possible and then compensating the remaining ones by offsetting – e.g. by investing in emissions reductions elsewhere (in other organisations/sectors) through the purchase of carbon credits.

The **net zero concept** does not allow for offsetting. This means that it requires emission reductions to a greater degree than carbon neutrality – ideally down to 0 (zero). However, it does allow for removal of any residual emissions from the atmosphere e.g. relying on natural processes (carbon sinks such as forests) or dedicated technologies (carbon capture & storage).

Does it mean that ACI EUROPE does not believe in offsets?

Our flagship programme *Airport Carbon Accreditation* does allow for offsetting of residual emissions at two levels of certification, “Neutrality” and “Transition”. As such, we are not opposing offsetting in general. However, we recognise that offsetting is a complex mechanism and that not all offset instruments are of high quality. To help our members identify high quality offsets, we have produced detailed and stringent [guidance](#).

If we do not allow for offsetting in the context of our Net Zero commitment, it is because we believe that if we really want to be in a Net Zero world by 2050, there will simply be no offsets as we know them today anymore, because everyone will have to eliminate its emissions. We believe that offsetting can only be a temporary measure that needs to be phased-out as soon as new opportunities for effective in-sector reductions and carbon removals arise.

But you allow for carbon removal to reach Net Zero. Are carbon removal and offsetting really different?

Yes, they are. Let's consider a concrete example: you emit 1 tonne of CO₂. Another company emits 1 tonne of CO₂ too. The total emissions are 1+1=2 tonnes. Now you decide to offset your emission by paying the other company to reduce its own emission of 1 tonne. The result of this transaction is 2-1=1. This means that your own emission of 1 tonne is still in the atmosphere – and as such, offsetting has not neutralised the increase in CO₂ in the atmosphere that you have contributed to.

Now let's consider removal. It means that after emitting your tonne of CO₂ you are removing it. 1-1=0. In this case, your impact on the emissions balance in the atmosphere is really zero.

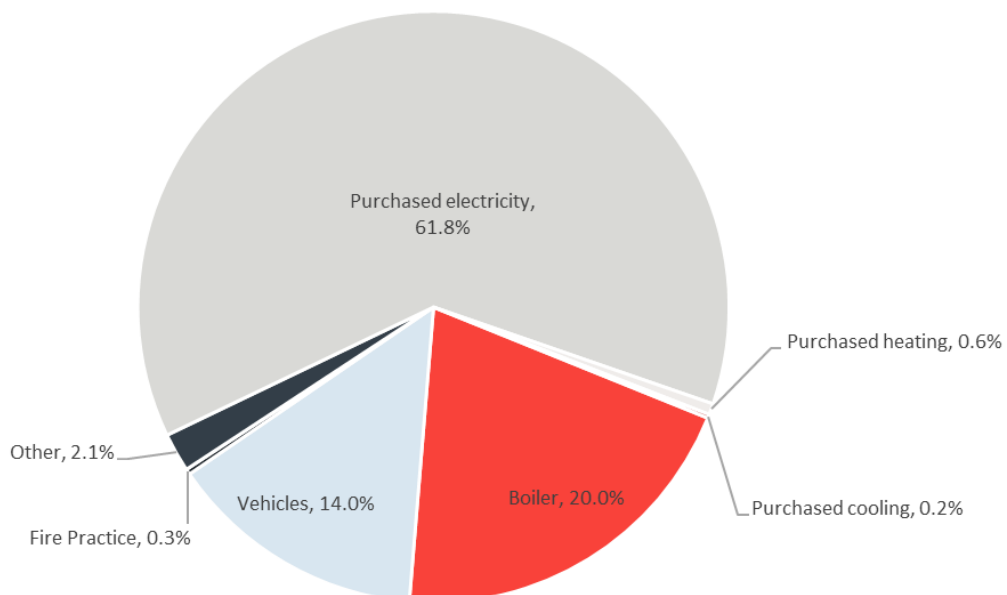
To make things more complex, it is true that some offsetting projects do rely on carbon removal projects, e.g. reforestation projects. In how far such projects will be eligible to account for Net Zero is yet unclear as accounting mechanisms for carbon removals are under development. To reach their Net Zero commitment, we are encouraging airports to embed carbon removals into their value chain, so we can avoid or at least minimise concerns around additionality, permanence or accounting that are inherent to offsetting.

So in practical terms, what emissions are we talking about & how can they be addressed?

The main sources of CO₂ emitted by airport operators and over which they do have control are:

- Electricity consumption, predominantly for heating/cooling/lighting and servicing terminal buildings and other buildings managed by airport operators.
- Boilers – mainly for heating purposes in relation to the above mentioned buildings. These run on gas and oil.
- Ground vehicles and support equipment running on petrol, diesel or gas.

Representative % of emissions of a typical airport



Source: WSP (Airport Carbon Accreditation Administrator) study on carbon reductions by Carbon Accredited airports (2018)

Airport operators do not have control over aircraft emissions at the airport and in the vicinity of the airport, as these are operated by airlines. Therefore, the emissions from aircraft operations are not covered by the commitment.

As the interface of a complex web of aircraft movements, technical operations and surface access transport, airport operators can address their CO₂ emissions in a variety of ways. These can include better insulation and energy efficiency, switching to green energy sources for electricity, heating and cooling, and investing in hybrid, electric or alternative fuelled service vehicles and support equipment.

In this context, the transition to a clean energy system in Europe is a key enabler for airports to reach net zero – for that reason, our commitment to net zero is accompanied by a call on the EU and national governments to accelerate this transition. Carbon capture and storage technologies and mechanisms for the accounting of emission removals are still in their infancy but will develop in the coming years, given the focus on achieving a net zero economy by 2050.

Regardless of the development of such technologies, the commitment shows how much airports recognise that emissions reductions need to be a priority if we are to move towards a net zero economy.

Are there any airports that have already achieved this?

Yes, there are 10 airports in Sweden, operated by Swedavia, that have already achieved net zero carbon emissions – and without any carbon removal. They are Stockholm Arlanda, Göteborg Landvetter, Bromma Stockholm, Malmö, Luleå, Umeå, Åre Östersund, Visby, Ronneby, and Kiruna. Luleå, Ronneby and Visby have been operating fossil-free since 2019.

That's all very well and good, but what about the emissions of the flights that these airports facilitate?

Our commitment to net zero is an integral part of ACI EUROPE's call on the whole aviation sector to define a vision, ambition and roadmap towards a Net Zero air transport system. For Europe's aviation, this pledge has now been made reality through the recently launched Destination 2050 project, in which ACI EUROPE has played a key role as one of the initiators. Destination 2050 is a roadmap charting a path to net zero CO₂ emissions for all flights departing Europe. The roadmap focusses on the aeronautical activity of the sector and therefore doesn't cover the airports' Scope 1 and 2 emissions. This is where the airport sector's pledge to net zero comes into place to complete the picture. As the airport industry, we want to do our part to eliminate the emissions within our direct control and be a positive influence on other partners in the air transport sector – including passengers. Find out more about Destination 2050 at www.destination2050.eu.

What % of total aviation emissions will this action by European airports actually eliminate?

In Destination 2050, CO₂ emissions from all flights departing the EU27+UK+EFTA were estimated to 192 million tonnes of CO₂ in 2019. Our net zero commitment is estimated to deliver a reduction of 3.14 million tonnes per year, which is approximately 1.6% compared to the 2019 footprint of aircraft operations in Europe.

2050 seems a long while away. Is this really soon enough?

Airports are at different points on this journey to become cleaner and more efficient, and not all of them have access to affordable, clean energy and technologies today, so that is why the agreed deadline is 2050 – as is the target date for the climate neutrality goal of the European Union, as per European Green Deal. The COVID-19 pandemic is also making it harder for the sector to raise or earmark the necessary funds to decarbonise in the short term.

The 2050 timeline is also aligned with the Paris Agreement, signed at COP21, in December 2015, as well as the conclusion of the IPCC Special Report on Global Warming of 1.5°C published in October 2018, according to which Net Zero emissions need to be reached by 2050.

Noting that the IPCC also calls on significant emissions reduction efforts by 2030, and the recently approved new EU Climate Target for 2030 of -55% emissions reduction, we do encourage airports to reach net zero as soon as possible.

Are any airports aiming to get there before 2050?

Yes, close to 100 airports are now setting a target of reaching net zero by 2030 or even earlier.

Can you explain how some airports can advance their Net Zero commitment by two decades?

The urgency to act now is not falling on deaf ears with airport operators. They recognise that the Climate Emergency is our absolute priority and are willing to do their part to mitigate it. Once the commitment to net zero has been put in place back in 2019, many airports started mapping the way to get there and realized that, with the right support from their governments and regulators, they can aim to deliver the necessary transformation earlier than previously foreseen.

When you talk about Net Zero you link it into airport investment and airport charges – does this mean that airport charges need to increase to support this?

As recovery prospects from the ongoing pandemic-induced crisis keep being pushed back, airports will emerge from this crisis in an unprecedented state of financial weakness. This will impact their ability to invest, right at a time when they need to accelerate decarbonisation and further embrace digitalisation – things that do not come cheap. There is no escaping that Europe's airports might be facing an investment crunch.

Therefore, cost recovery is going to be the only way to keep developing ever greener and digitalised airport infrastructure. It is the key to ensuring a more sustainable, competitive and efficient air transport system meeting the needs of people, businesses and communities.

Will ACI EUROPE monitor and report on the progress of Europe's airports regarding Net Zero?

The current status as regards the number of signatories, their specific target dates and, eventually, their accomplishment can be consulted at www.aci-europe.org/netzero. ACI EUROPE logs any changes, including progress made by individual airports, and will communicate about future developments accordingly.

Do the new *Airport Carbon Accreditation* Levels 4 and 4+ relate to the Net Zero commitment?

Airport Carbon Accreditation and the ACI EUROPE Net Zero commitment are two separate initiatives. However, the new Levels 4 and 4+, launched in November 2020, are specifically guiding airports in defining emissions reduction targets and strategies in line with the Paris Agreement. This does include, of course, Net Zero goals. As such, through its new Levels, *Airport Carbon Accreditation* is effectively supporting progress towards Net Zero carbon airports.