FUTURE TECHNOLOGY FACTSHEET

CURRENT MEASURES AND TECHNOLOGY

Pioneering has always been a core element of easyJet's strategy and since 2000, the airline has reduced its carbon emissions per passenger, per kilometre by over a third (33.67%) 34%.

easyJet has always been focused on being as efficient as possible, which reduces our carbon emissions; transitioning to increasingly more modern, fuel efficient planes such as the A320NEOs; flying them in ways which reduce noise and an unnecessary use of fuel; and flying them full of passengers as much as possible.

And we continue to find other ways to reduce the carbon emissions from our planes – by installing lighter seats, carpets and trolleys which means we use less fuel, using one engine for taxiing where possible and looking to switch to new more efficient technologies, for example, eTaxiing. We are also working on reducing carbon emissions from our non-flying activities, for example by using renewable energy in our facilities.

But we want to take action on carbon now which is why easyJet has become the world's first major airline to have net-zero emissions from its flights by offsetting the carbon emissions from the fuel used for all of its flights on behalf of all of its customers. The aim will be to reduce the amount of carbon offsetting we do as new technologies emerge which reduce carbon emissions.

In parallel, we will also continue advocating for more efforts from airports to promote initiatives to attract the quietest and cleanest aircraft.

LONGER TERM TECHNOLOGICAL ADVANCES

We know that carbon offsetting is only an interim measure while new technologies are developed, but at the moment we believe it's the best way we have to remove carbon from the atmosphere. In the longer term the aviation industry will have to reinvent itself. easyJet has been and will continue to support the development of innovative technologies, including the development of hybrid and electric planes.

We are also considering other technologies to radically reduce the carbon footprint of flying and we are working closely with partners in this area, including Wright Electric and Airbus. Wright Electric, is working to produce an all-electric 180-seater plane for short haul flights, and we are undertaking a joint project with Airbus, to research how electric and hybrid plans could be introduced for short haul flying in Europe.

We also want to champion new carbon capture technologies like direct air carbon capture and storage (DACCS) and sustainable aviation fuels (SAFs) by looking to use them as they become available and commercially viable, which they are not today.

We are ready and eager to play our part and so look to the other key players – governments and airports – to also play their part too and together the industry can make great strides into the future. Governments can do so by incentivising everyone in the sector to operate as efficiently as possible including incentivising airlines to offset the carbon impact of their flights. Current aviation taxes do not make aviation cleaner. Instead, they just prevent the industry from investing in innovation.

We also need significant investment in R&D to develop technologies such as carbon capture and storage, sustainable aviation fuels and hybrid and electric technologies.

Airspace efficiency is also one of the areas where governments can make real improvements by implementing the Single European Sky without delay.

We have also signed a Memorandum of Understanding (MoU) with Airbus related to a joint research project on hybrid and electric aircraft. The MoU is an important step towards furthering the industry's understanding of the operational and infrastructure opportunities and challenges of plug-in hybrid and full electric aircraft.

easyJet and Airbus will cooperate on three distinct work packages set to define the impacts and the requirements necessary for the large-scale introduction of next generation sustainable aircraft on infrastructure and every-day commercial aircraft operations.

WRIGHT ELECTRIC

easyJet shares an ambition with Wright Electric for a more sustainable aviation industry. In order to reduce our impact on the environment, we will be looking to electric technology to achieve this.

The Wright Electric plane is being specifically designed for short haul flights which is perfectly suited to easyJet's route network where our average flight is around less than two hours. Many key city pairs like London to Amsterdam or London to Paris or Belfast to London could be flown by an electric aircraft – cutting emissions, noise and fuel consumption.

Wright Electric already has a two seater electric plane flying today with partner Axter Aerospace. It plans to fly a second 9 seater sized electric aircraft in the coming months and a larger, commercial-scale aircraft by 2023.

ELECTRIC PLANE DEVELOMENT

Electrification of aircraft has been ongoing for decades. Every new generation of aircraft have had increasing onboard electrical generation capacity to power more and more subsystems that traditionally were mechanically, hydraulically or pneumatically controlled – and each switch has made aircraft more efficient.

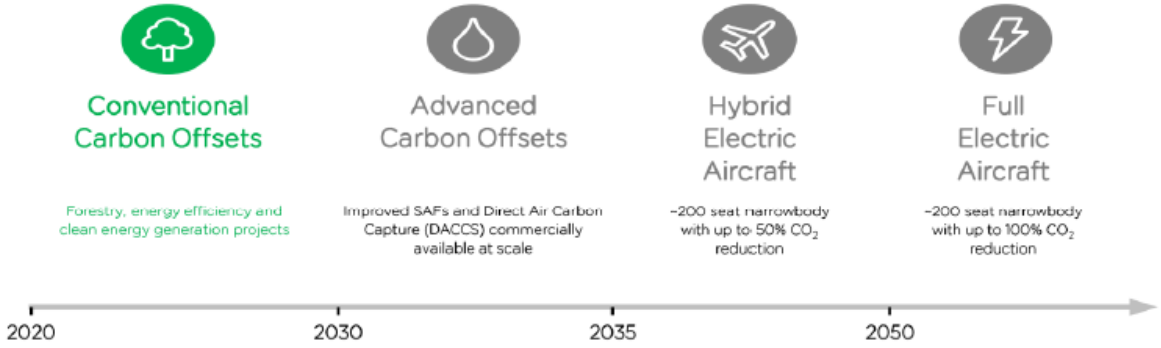
The next step in this electrification journey is to electrify propulsion itself. However, this is difficult. It means the electric capacity of an aircraft has to increase by a factor of 25*. To make this possible, we will need new battery technologies, more efficient electrical systems (such as motors and power electronics), and to really capture all the benefits of electrical propulsion, we will need to re-imagine the aircraft itself*.

The benefits of electric aircraft could be as significant as the challenge: they have the potential to make aviation more fuel efficient, better for the environment, and more cost effective. While fully electric easyJet-sized aircraft are likely some way away, hybrid-electric narrowbody aircraft are expected to be possible by the mid to late-2030s and could deliver efficiency improvements of 25-50%*.

Seeing this potential, there are around 190 electric aircraft in development today, which has increased from about 100 projects a year ago*. These brand new aircraft are being developed by start-ups and major incumbents alike, with several developments directly targeting large>100 plus seat aircraft that could one day be part of easyJet's fleet.

*Source: Roland Berger

De-Carbonising aviation



TECHNOLOGY ROADMAP FOR SHORT HAUL AIRLINES