



HOW A GLOBAL CARBON OFFSETTING SCHEME FOR AVIATION WOULD WORK

IN 2009, THE AVIATION INDUSTRY SET ITSELF THREE AMBITIOUS CLIMATE GOALS. MORE INFORMATION ABOUT THESE GOALS IS AVAILABLE AT WWW.ENVIRO.AERO, BUT TO ACHIEVE THE SECOND GOAL TO CAP NET AVIATION CO₂ EMISSIONS AT 2020 LEVELS, A GLOBAL MARKET-BASED MEASURE MUST BE DEVELOPED.

The aviation sector is currently working to develop such a measure, in the form of a global offsetting scheme, for international flights. This is part of a broader set of climate action taking place across the industry. The global offsetting scheme is being developed at the International Civil Aviation Organization (ICAO), a United Nations specialised agency which brings together governments with industry and environmental group observers.

This is the first time such a measure has been attempted at a global level, by any sector. There are a range of political and technical challenges being worked through, with the hope that a decision can be made at the triennial ICAO Assembly in September/October 2016.

This document explains how a global offsetting scheme would work and answers some of the questions being asked about the project.

WHAT HAS BEEN HAPPENING AT ICAO?

The International Civil Aviation Organization, bringing together governments, industry and environmental groups, has been working for the past three years to design a global offsetting scheme for aviation. Negotiators have been working at a political level to deal with some of the big questions that need to be resolved (such as how you ensure countries are treated fairly), whilst other colleagues have been looking at technical aspects (such as reporting requirements and what kinds of offsets can be used). These discussions will come to a conclusion at the ICAO Assembly in September/October 2016. If all goes well, the design of a global offsetting scheme should be agreed at that meeting. This should provide enough time for the implementation of the scheme (and resolution of any remaining design issues) so that it can start operating from 2020.

IS AVIATION DOING ANYTHING ELSE TO REDUCE EMISSIONS?

The aviation sector is doing a lot to cut fuel use and emissions. In fact, the global offsetting scheme would be just one of four pillars of action. The industry is introducing new technology, high-efficiency aircraft (over \$1 trillion has been spent by airlines on new planes since

2009), working hard to commercialise the use of sustainable alternative aviation fuels, undertaking a huge number of operational projects (such as using lightweight equipment on board), and improving the air traffic management systems. More information on these efforts can be found on www.enviro.aero

WHAT IMPACT WILL THIS HAVE ON TOURISM, TRADE AND CONNECTIVITY?

It shouldn't have any real impact on the growth in air traffic. In fact, the industry developed its plan as a way to help ensure aviation growth continues (to drive economic development through trade and tourism), whilst also taking care of our environmental responsibility. If we do not take this action, the spread of other economic measures may indeed have a detrimental impact on air transport connectivity.

HOW WILL YOU ENSURE THAT SMALL AVIATION MARKETS ARE NOT UNDULY IMPACTED?

This is likely to be done in two ways. There will be a cut-off so that the lowest emitting aviation markets are not included (which collectively produce very little CO₂ and where the scheme may create more of a burden than a benefit) and a phase-in of the scheme in some markets to promote continued economic development.

HOW MUCH WILL THIS COST AIRLINES, WILL TICKET PRICES RISE AS A RESULT?

This depends on a lot of factors. Forecasts need to be made of the expected growth in traffic, estimations of the future price of carbon offset units and, on top of that, the expected fuel efficiency of new aircraft. But some initial modelling has been undertaken by ICAO which indicates that, for example, in 2030 the global offsetting scheme could cost all the world's airlines around \$5.6 billion. This might sound like a lot, but it comes in at around 0.5% of the projected industry revenue at the time. So it is significant, but it would be a lot less than the cost of fuel for any one airline (and less than a tax might end up costing the industry).

WOULD A TAX ON FLIGHTS WORK?

A tax is a simple instrument, but the revenue often doesn't get used for environmental purposes. Governments may also be tempted to increase the tax arbitrarily, which could lead to market distortions. Instead of a tax, an offsetting scheme is simple, but also guarantees environmental integrity.

COULD WE USE A WORLDWIDE EMISSIONS TRADING SCHEME INSTEAD?

A global ETS would have good environmental credentials, but would be very complex to set up and administer. Trying to do so in 190+ countries within the next few years would be very difficult. By developing an offsetting scheme for aviation, environmental integrity is ensured, but it is also much simpler than an ETS.

WHAT WILL HAPPEN IF THE MBM FOR AVIATION IS NOT AGREED?

A global industry like aviation needs a global solution for an issue such as this - mainly to ensure that there is no distortion in the market. If there is no global agreement at ICAO, we can expect a patchwork of different measures to be implemented in different States around the world, which could cost the industry up to \$78 billion a year by 2030, and actually be worse for the environment because they will not cover as much of the CO₂ emitted by aviation as the ICAO project.

WHERE DO THE OFFSETS COME FROM?

Offsets (also called carbon units, or credits) come from projects, mainly in developing nations, which reduce CO₂ emissions. They can include paying for clean energy systems (such as solar panels on houses), reducing deforestation and shifting to more efficient technology. Importantly, many of these projects also have other benefits - including health, supporting social development and helping improve education. The global aviation offsetting scheme will provide a significant amount of financing to climate protection projects around the world.

WHO ENSURES THE OFFSETS ARE REAL?

In order for any global aviation scheme to provide credible offsets with environmental integrity, the offsets need to come from reliable sources. There are a number of verifiers which assess the quality of projects and ensure CO₂ reductions are taking place. For example, the UN's Clean

Development Mechanism (which will be replaced with a Sustainable Development Mechanism), the REDD process which looks at offsets from forestry, the Gold Standard and the Verified Carbon Standard (VCS) are all systems that can verify projects. The aviation industry would like to have access to a wide range of these types of offsets, of course, as long as they are verified and high quality.

HOW WOULD AN AIRLINE PURCHASE OFFSETS?

The global offsetting scheme would require an airline to buy offsets to meet its CO₂ emissions obligations. Offsets are purchased through special banks or brokers who trade on an offset market - much like commodities.

DOES THE AVIATION INDUSTRY HAVE ANY EXPERIENCE IN OFFSETTING?

Yes! Around 50 airlines worldwide already run carbon offsetting schemes where their passengers can volunteer to offset the emissions from their flights, in addition to airlines also offsetting their own business emissions. Airports are also engaged in carbon management, such as the Airport Carbon Accreditation programme. These schemes help a range of projects, many in developing countries.

WHAT WILL THE SCHEME COVER?

The plan is to meet the industry (and ICAO) goal of carbon-neutral growth from 2020. This means that all emissions growth from a 2020 baseline will be offset by the industry, in effect capping air transport emissions at the 2020 level.

HOW LONG WILL THE MBM BE IN PLACE?

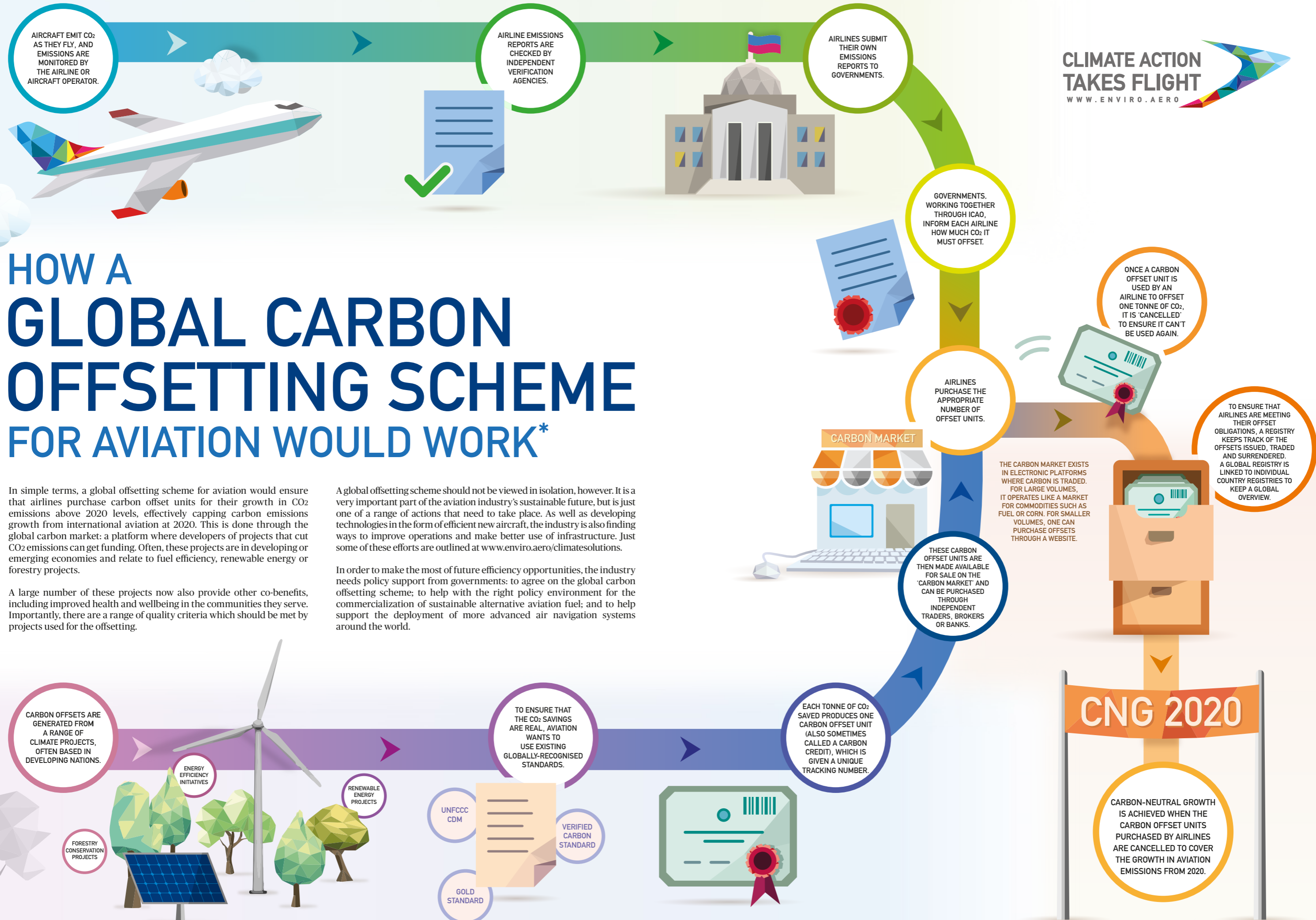
Until we reduce overall emissions under 2020 levels, in line with our third goal of reducing emissions by 50% compared to 2005 levels.

WHO ENSURES THAT AIRLINES DO ACTUALLY BUY OFFSETS?

There will be a process whereby airlines have to monitor and report their fuel use (and emissions) to their national governments who will then verify the information is correct. The airlines will then need to surrender the right number of carbon offset units to their authority to prove that they have offset their emissions.

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HOW A GLOBAL CARBON OFFSETTING SCHEME FOR AVIATION WOULD WORK*

In simple terms, a global offsetting scheme for aviation would ensure that airlines purchase carbon offset units for their growth in CO₂ emissions above 2020 levels, effectively capping carbon emissions growth from international aviation at 2020. This is done through the global carbon market: a platform where developers of projects that cut CO₂ emissions can get funding. Often, these projects are in developing or emerging economies and relate to fuel efficiency, renewable energy or forestry projects.

A large number of these projects now also provide other co-benefits, including improved health and wellbeing in the communities they serve. Importantly, there are a range of quality criteria which should be met by projects used for the offsetting.

A global offsetting scheme should not be viewed in isolation, however. It is a very important part of the aviation industry's sustainable future, but is just one of a range of actions that need to take place. As well as developing technologies in the form of efficient new aircraft, the industry is also finding ways to improve operations and make better use of infrastructure. Just some of these efforts are outlined at www.enviro.aero/climatesolutions.

In order to make the most of future efficiency opportunities, the industry needs policy support from governments: to agree on the global carbon offsetting scheme; to help with the right policy environment for the commercialization of sustainable alternative aviation fuel; and to help support the deployment of more advanced air navigation systems around the world.

*Note: the offsetting scheme is still being developed and negotiated. This is a simplified explanation of how the scheme will probably work, although during the course of negotiations, the exact details may change.