Reducing & offsetting emissions in aviation; Experiences from the voluntary carbon market

ICROA welcomes the agreement reached in October 2016 to introduce a Carbon Reduction and Offsetting Scheme for International Aviation (CORSIA). Between 1990 and 2014, emissions from international aviation increased by 95%, and are now similar in magnitude to those of Canada. In the long term, the aviation industry is developing operations, infrastructure and technology solutions – such as low carbon fuels – to enable sustainable growth. But in the short to medium term, projections indicate that aviation’s rapid increase in emissions is likely to continue. Consequently, it is welcome news that ICAO has committed to a goal of achieving carbon neutral growth from 2020.

Significant experience of working with the aviation industry

There are nearly 50 airlines worldwide that are currently involved in voluntary offsetting. Normally this service is provided as an opt-in or opt-out option to passengers, or airlines offer carbon neutral flights to commercial and cargo customers who are interested in greening their Scope 3 emissions. Of these 50 airlines, Qantas and Delta Airlines have the most active offsetting programmes, and are regularly some of the largest buyers of voluntary offset credits in the world. ICROA members have actively supported a number of international airlines in the design and operation of offsetting schemes, and in the selection of emissions reduction projects and retirement of carbon credits. All ICROA members sign up to our Code of Best Practice for Carbon Management Services. This gives assurance to airlines who work with ICROA members that they will receive the highest standards of quality and support for their offset programmes.

Lessons learnt from the past 10 years

The practical experience and learning from the last decade in the voluntary carbon market has established strong foundations. A number of the uncertainties and questions that existed in the early days of the voluntary carbon market have been addressed. For example, issues related to leakage and permanence of forestry and REDD+ offsets have been fully addressed by independent standards such as American Carbon Registry (ACR), Gold Standard and Verified Carbon Standard (VCS). In addition, ICROA has helped address some of these questions by developing our Code of Best Practice, which sets quality standards for carbon footprinting, GHG emission reductions, carbon offsetting and communication.

All ICROA members are independently audited against the requirements of the Code each year. This helps demonstrate their commitment to the very best practices in carbon management and offsetting services, but also provides important quality assurance to the market.

The result is that the voluntary market is now complemented by sophisticated systems and architecture – such as standard organisations, certification bodies and registries – to allow it to function effectively and with integrity. For instance, all the standards endorsed by ICROA have very precise rules on accounting and issuance of carbon offsets. This ensures that emission reductions are real, measurable, permanent, independently verified and unique. And at the credit retirement stage, established carbon registries such as APX, Markit Environmental Registry, and the CDM Registry provide an independent method to keep track of offsets and clarify their ownership, therefore avoiding the risk of double counting.

Consequently, the voluntary carbon market is now a highly effective tool to deliver both emissions reductions and non-carbon benefits at least cost.

Implementing CORSIA

ICAO’s Committee on Aviation Environmental Protection (CAEP) has developed two scenarios – Optimistic and Less optimistic – detailing the volume of emissions to be offset out to 2040. These scenarios project that between 590 and 816 million tonnes will need to be offset each year in 2040. These scenarios project that between 590 and 816 million tonnes will need to be offset each year in 2040.

Given the projected supply of credits from the CDM, and the possibility of supply from other sources such as REDD+ and the voluntary standards, it seems that a supply shortfall is unlikely in the early years of CORSIA.
However, this situation may change over time. **Demand is expected to rise**, boosted by the addition of new countries to CORSIA, and there are uncertainties over the future supply pipeline. For instance, there are questions around how much supply will be generated from the crediting mechanisms in the Paris Agreement, and what the demand will be for those credits from countries implementing their NDCs.

But despite these longer-term uncertainties, the costs of the scheme are expected to be manageable. CAEP’s central forecast suggests that in 2030, **CORSIA will cost the aviation industry $4.3bn, or 0.4% of revenue**. To put that in context, in 2015, the world’s airlines spent some $181 billion on fuel (around a third of operating costs).

### The need for, and benefits of, early action

Early action should be recognised and rewarded, and the International Emissions Trading Association (IETA) and ICROA are both in alignment on the importance of this. Given that international aviation is experiencing rapid growth, and the first compliance period for CORSIA is not until 2023, **there is a need to mitigate emissions in the interim**. Therefore, we encourage airlines to start pre-compliance offset programmes, as Delta has already done. Delta chose 2012 as a baseline year for carbon-neutral growth, and achieved it in 2014 through efficiency initiatives and buying offsets from projects involved in landfill gas, REDD+, and clean cookstoves. **These pre-compliance programmes will also help airlines develop experience and familiarity with credit trading.**

### Looking to the future

Whilst ICAO’s goal of carbon neutral growth from 2020 is a welcome first step, enhanced action will be needed in the future if the aviation industry is to play its part in helping to deliver the Paris Agreement’s core objective of limiting warming to less than 2°C. Therefore, **we support the Air Transport Action Group’s (ATAG) target of reducing net aviation carbon emissions by 50% by 2050, relative to 2005 levels.**

With a wealth of experience in helping the aviation industry run offsetting programmes, the voluntary carbon market looks forward to assisting in the design and delivery of CORSIA.

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The International Carbon Reduction and Offset Alliance (ICROA) is an industry association housed within IETA. It is made up of leading service providers, who together, provide a unified voice for the voluntary carbon market. Its primary aim is to deliver quality assurance in carbon management and offsetting, through adherence to the **ICROA Code of Best Practice**.

Corporate clients choose to work with ICROA members because they know they will receive the highest standards of quality and support for their offset programmes. Further details can be found at [www.icroa.org](http://www.icroa.org).