

#### Frequently Asked Questions

#### WHAT IS AN OFFSET?

An offset represents a unit of greenhouse gas (GHG) emissions reduced or stored through a project or activity (e.g., clean and efficient cookstoves or reforestation) outside an entity's direct control. Offsets can be used to mitigate an equivalent amount of emissions in other sectors that are considered "hard to abate".

## IN TERMS OF REDUCING GHG EMISSIONS, WHAT DOES IT MEAN TO BE A "HARD-TO-ABATE" INDUSTRY?

Certain economic activities have few substitutes for their energy sources that release GHG emissions. Aviation is a hard-to-abate industry because, until recent years, it has relied solely on petroleum-based fuels. However, sustainable aviation fuels (SAF) that meet the same stringent safety standards as traditional jet-A fuel (and in some cases contribute to better performance) have been demonstrated to work up to a 50 percent blend. Unfortunately, production of SAF will take time to scale up.

### WHAT IS THE DIFFERENCE BETWEEN IN-SECTOR AND OUT-OF-SECTOR EMISSIONS REDUCTIONS?

Aviation cannot completely reduce its directly made emissions (in-sector) due to its current reliance on petroleum-based fuel. It could look to external sources of emissions reductions (out-of-sector) to sponsor as a method to offset its in-sector emissions until such time as the benefits from scaled-up SAF availability, more modern aircraft, and infrastructure improvements accumulate. Supporting the emissions-reducing activities of external sources is facilitated by purchasing offsets.

# THERE IS A RANGE OF ACTIONS AN AIRCRAFT OPERATOR COULD TAKE TO REDUCE ITS EMISSIONS. WHY SHOULD AIRCRAFT OPERATORS OFFSET THEIR EMISSIONS?

While the industry strives to meet its decarbonization goals directly, offsetting is a supplemental tool that allows operators to mitigate emissions now by financing carbon reductions achieved in projects outside the sector. Carbon credits can be used in the near term as a parallel activity to other decarbonization actions, such as operational improvements, use of sustainable aviation fuel (SAF), and newer, more efficient aircraft, contributing to emissions reductions now while the benefits of other measures accumulate over the longer term.



### WHY USE THE IBAC CARBON CREDIT EXCHANGE VIA CTX VS. PURCHASING OFFSETS THROUGH OUR FUEL SUPPLIER OR HANDLER?

IBAC chose to partner with Carbon Trade eXchange (CTX) because of their experience in the offset market and transparent business model. Their fixed fee transactions allow 95% of the funds collected to go directly to accredited projects. IBAC exchange members will have the freedom to choose to support projects that align with their corporate strategy, whether it's wind energy farms in the North America or clean water efforts in Southeast Asia.

CTX is the world's first electronic exchange for carbon credits that works directly with project developers and thereby offers prices at a wholesale rate. There are no intermediaries between CTX and Project Developers, resulting in an efficient and transparent offset purchasing experience.

### HOW DO I CALCULATE MY EMISSIONS IF I USE GALLONS OF FUEL (OR LITRES OR POUNDS OR KILOS)?

To calculate the number of offsets to purchase, it's one simple step beyond the process of monitoring your fuel use, which IBAC encourages operators to do as recommended good practice. If you don't already monitor your fuel, IBAC and CTX will be able to give you simple guidance on how to do this.

ICAO and other agencies measure CO<sub>2</sub> in metric tonnes. It is always recommended that fuel uplifted/used is also converted to tonnes, so it can then be measured in the same way. This enables the operator to calculate emissions output from fuel use and be consistent with measurement units used.

While IBAC and CTX work on a more sophisticated  $CO_2$  calculator for business aviation operations, we recommend that measurements are done on a flight-by-flight basis and calculated as follows.

- 1 unit of fuel burned creates 3.16 units of CO<sub>2</sub>.
- Therefore, if you uplift 2 tonnes of fuel, once burned, that fuel produces 6.32 tonnes of CO<sub>2</sub>,
- To offset this fuel burned, you will require 6.32 offset units.

### CAN ONLY AIRCRAFT OPERATORS PARTICIPATE IN THE IBAC CARBON CREDIT EXCHANGE?

Business aircraft operators and, indeed, any entity in the business aviation community wishing to offset some or all of their GHG emissions may do so via the IBAC Carbon Credit Exchange. The Exchange provides a platform for entities throughout the sector to demonstrate their sustainability leadership and contribute to the industry's efforts to meet its decarbonization goals.

### I'D LIKE TO PARTICIPATE IN OFFSETTING MY EMISSIONS BUT AM NOT AN AIRCRAFT OPERATOR. HOW DO I CALCULATE MY EMISSIONS?

Everyone in the business aviation community is encouraged to understand their emissions output.

To do this, you will need to assess the emissions output of your business activity from installations such heating, cooling electricity and any vehicles operated by the business. These are generally known as Scope 1 emissions and are the most straightforward to measure.

Once assessed, you will input your data into a suitable carbon footprint calculator to determine your overall emissions. You can approach mitigation in a number of ways and can begin by introducing suitable improvement measures before offsetting any remaining emissions. IBAC or CTX can recommend a suitable tool for this task.

If you want to be more sophisticated with your calculations and cover scope 2 and 3 emissions, the calculations will be more extensive. IBAC or CTX can recommend a suitable methodology for this analysis.

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#### HOW DO I KNOW THAT THE OFFSETS I MAY PURCHASE ARE GENUINE?

CTX's carbon credit exchange lists only carbon credits from projects that are verified by the three leading global standards bodies for certifying projects and their emissions reductions:

- The Gold Standard
- UNFCCC Clean Development Mechanism (CDM)
- Verra Verified Carbon Standard (VCS)

These standards are recognized by governments around the world for their methodology, transparency, and accountability in verifying emissions-reducing projects.

#### HOW DO I PROVIDE PROOF OF HAVING PURCHASED OFFSETS?

The purchaser of offsets receives a certificate for the purchase. The certificate shows that the offsets are unique, have been removed from the market, cannot be sold again or double counted.

#### WHAT DOES "RETIREMENT" MEAN IN THE CONTEXT OF OFFSETS?

Retirement is the act of submitting offset certificates to authorities to demonstrate emissions reduced under a compliance scheme. Certificates for purchased offsets are sent to the purchaser. The purchaser could then "retire" the certificates to receive credit from an authority for having offset that amount of emissions in accordance with an emissions-reduction requirement.

#### **CONTACT**

For questions or concerns, please contact:



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For more information about IBAC, please visit IBAC.org

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