ICAO ENVIRONMENT

CORSIA AT A GLANCE SERIES

CORSIA ELIGIBLE FUELS

An aeroplane operator can reduce its CORSIA offsetting requirements in a given year by claiming **emissions reductions from the use of CORSIA eligible fuels (CEF)** by the following process:

See leaflet 5

1. The operator obtains the **life cycle emissions value (LS_f) of the CEF**. This is determined during the CEF sustainability certification process (*see back*).

2. The operator calculates the **CEF emissions reductions (ER_y)** as follows:

$$ER_y = FCF \times \left[\sum_f MS_{f,y} \times \left(1 - \frac{LS_f}{LC} \right) \right]$$

Fuel Conversion Factor, fixed value, 3.16 for Jet-A/ Jet-A1 or 3.10 for AvGas/ Jet B [kg CO_2/kg fuel]

Total mass of CEF claimed in the year y, by fuel type f [tonnes]

Baseline life cycle emissions, fixed value, 89 for jet fuel or 95 for AvGas [gCO_{2e}/MJ]

Example: If, in 2021, an operator uses 10,000 tonnes of Jet-A fuel produced from Used Cooking Oil (default **LSf=13.9 gCO2e/MJ***), the amount of emissions reductions will be:

$$ER_{2021} = 3.16 \times \left[10{,}000 \times \left(1 - \frac{13.9}{89} \right) \right] = \textbf{26,665 tonnes of } CO_2$$

3. The operator includes information on CEF in its Emissions Report, including:
   - **CEF emissions reductions (ER_y) claimed**
   - Fuel type, mass, and **life cycle emissions value (LS_f)**
   - Evidence of compliance with CORSIA sustainability criteria (*see back*)

4. A verification body verifies information on CEF provided in the Emissions Report. (*see leaflet 8*)

5. The State collects and aggregates verified information on CEFs from all aeroplane operators attributed to it, and reports aggregated information to ICAO through the CORSIA Central Registry (CCR). (*see leaflet 6*)

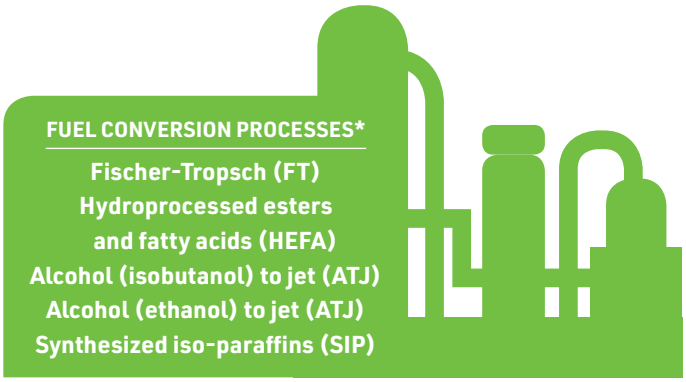
* Default value pending approval by the ICAO Council.

How does a fuel become a CORSIA Eligible Fuel (CEF)?

Several feedstocks and fuel conversion processes have the potential to produce CEF. A specific CEF sustainability certification process should be followed to determine if the fuel meets the CORSIA requirements.

FEEDSTOCKS

FUEL CONVERSION



*Reference: ASTM 7566 and ASTM 1655 – ensures the technical specifications of the fuel

CERTIFICATION

CORSIA ELIGIBLE FUEL

More feedstocks and fuel conversion processes may become available to Fuel Producers as the CEF industry evolves.

CORSIA IMPLEMENTATION ELEMENT FOR CEF

Five ICAO documents comprise the CORSIA Implementation Element for CEF, and they define the procedures and requirements needed for CEF consideration under CORSIA:

1. **CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes**
2. **CORSIA Approved Sustainability Certification Schemes**
3. **Sustainability Criteria for CORSIA Eligible Fuels**
4. **Default Life Cycle Emissions Values for CORSIA Eligible Fuels**
5. **CORSIA Methodology for Calculating Actual Life Cycle Emissions Values**

SUSTAINABILITY CERTIFICATION SCHEMES

Sustainability Certification Schemes (SCS) approved by the Council 1, 2, will work with the fuel producers to perform the fuel certification with the CORSIA Sustainability Criteria 3.

Life Cycle Emission Value (LS_f)

The amount of emissions reductions generated by the use of CEF depends on its **life cycle emissions value (LS_f)**. There are two ways of obtaining this value:
Using a **default** value 4 or
Calculating an **actual** value 5.