CO_2 PERFORMANCE LADDER

Harmonisation act 4 (revised)

Subject:

Aviation emissions reduction through participation in renewable fuels program.

Context:

Participation in renewable fuel programs is currently the only serious method of reducing emissions from air travel (besides flying less). It is not clear what requirements apply to these programs in order to be approved. In addition, the current programs communicate an emission reduction per fuel unit (ton or litre), while for the CO_2PL an emission reduction per passenger kilometre is requested.

Harmonisation act:

Participation in renewable fuel programs is accepted as a measure for the measure list and for reducing CO_2, regardless of which airline is used. Programs must meet the following requirements:

- The producer of the purchased renewable fuel is certified for a scheme recognised by the European Commission or is equivalent thereto[1]
- The program (this can be a stand-alone program or the program of an airline) provides a specification of the amount of renewable fuel purchased accompanied by an auditor's report.

The CO_2 emission reduction should be calculated as follows:

1. For the most accurate[2] emission factor (WtW) per passenger kilometre, the emission is determined based on the distance flown (in kg CO_{2eq});
2. For the most accurate emission factor (WtW) per volume unit[3], the amount of kerosene (in litres) is determined based on the outcome for 1. If part of the emission factor for 1. consists of an allowance for radiative forcing (RF), this allowance must first be deducted from the total. This RF allowance is often applied because emissions released higher in the atmosphere have a stronger greenhouse effect than sea-level emissions, whether from a fossil or biogenic source.

   NB: The number of litres at 2. is the maximum number of purchased litres of renewable fuel that may be used for the CO_2 Performance Ladder. The emissions due to RF cannot be reduced with the purchase of renewable fuels.

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[1] At the publication date of this harmonisation act, at least the following schemes are approved by the European Commission: 2BSvs, Better Biomass, Bonsucro EU, ISCC EU, KZR INiG, REDcert, Red Tractor, RSB EU RED, RTRS EU RED, SQC, TASCC, UFAS, SURE, SBP and AACS.

[2] This is usually taken from www.co2emissiefactoren.nl. For the criteria, see §5.2.1 of Handbook 3.1.

[3] If the fuel program for the purchased renewable fuel communicates a mass unit, a factor of 0.8 kg/litre must be applied.

3. The amount (in litres) of renewable fuel purchased is multiplied by the most accurate renewable fuel emission factor per litre.

Example (based on the 2023 emission factor list of www.co2emissiefactoren.nl):

1. For a flight of 5000 km, we multiply the distance flown by the correct emission factor per passenger kilometre (0.157 kg/km). This leads to an emission of 785 kg CO_{2eq}.
2. For this flight, this equates to a consumption of 144.2 litres of kerosene per passenger (based on 3.203 kg/litre and an RF factor of 1.7). This is the maximum number of litres of renewable fuel that may be used per traveller for the CO_2 Performance Ladder for this flight.
3. The emission of renewable kerosene (organic, rapeseed) is 1.628 kg/litre (WtW) according to www.co2emissiefactoren.nl. If at least 144.2 litres (or 115.36 kg) of renewable fuel are purchased, the total emission for this flight is 558 kg CO_{2eq} (of which 234.76 kg CO_{2eq} from the fuel and 323.24 kg CO_{2eq} as a result of RF). This is a reduction of 29% compared to a flight with fossil kerosene.

Date of publication Harmonisation act:

01-03-2023

Transition period:

6 months from the publication date.

Note: This concerns a change with retroactive effect: the reference year must also be adjusted for this change