



EU ETS Registry data analysis

Methodological note

April 2022

1. Introduction

Every April, the European Commission releases compiled ETS emissions data¹. T&E analyses this data to understand the performance of airlines and to draw a comparison with other sectors in the ETS. In 2021 and for the first time, the scope of the EU ETS is reduced. Aircraft operators now report emissions from flights from the UK to the EEA under the UK ETS². Until the UK ETS verified emissions are made available, a direct comparison of 2021 EU ETS airline emissions with previous years would be incoherent. The comparison with previous years will be the subject of a later analysis. Since the agreement between Switzerland and the EU on linking their ETS in 2020, airlines report emissions and allocations from flights within Switzerland, and departing from Switzerland to the EEA in a separate section in the ETS log (called “CH emissions” and “CH allocations”). Emissions from flights from the EEA to Switzerland are reported in the EU ETS section. From hereon in, EU ETS will refer to the union of the EU and Swiss ETS. This methodology note details the analysis we have undertaken to infill missing data and which airlines are grouped together and why.

2. Emissions filling

We fill emissions if an account has not yet reported (i.e., they have -1 reported), their account is listed as open and they are not excluded from reporting. Typically, there are a certain number of accounts that do not report their emissions on time. For the aviation sector, the operators that have not reported their 2021 emissions in time accounted for 13% of aviation emissions in 2020, and 16% in 2019. For the other sectors, they accounted for 10% of 2020 stationary emissions, and 11% of emissions in 2019³. For operators from the stationary sectors⁴ that have not reported their emissions, the overall change in emissions of the corresponding sector⁴ (defined by its activity code, e.g. 21 for the sector of refining of mineral oil) is applied on its 2020 verified emissions to obtain the 2021 estimation.

¹ https://ec.europa.eu/clima/policies/ets/registry_en#tab-0-1

² Emissions from flights from the EEA to the UK remain under the EU ETS scope ([source](#)).

³ Stationary emissions from the UK are subtracted from 2020 and 2019 total stationary emissions to allow comparison.

⁴ Only entities that reported emissions both in 2021 and 2020 are taken into account to calculate the sector average change in emissions.

Although the same process is applied on the majority of airlines that have not reported their emissions, a more detailed analysis was undertaken for several specific airlines. The largest airlines that declared bankruptcy in 2021 were identified and the month that they ceased operations noted. For those airlines, an extra step consists in applying the ratio of the number of months they operated over the year of 2021. For FlyBe, which went bankrupt in March 2020 and resumed operations in April 2021, the intermediary figure was multiplied by a ratio taking into account the shortened operating period in 2020 and in 2021. The bankrupt airlines that we identified⁵ are listed in Table 1, with the estimated emissions calculated for those that are missing.

| Airline | Identifier in ETS log | last operations | Verified emissions 2020 (CH verified emissions) | Verified emissions 2021 (CH verified emissions) | Estimated emissions 2021 (estimated CH emissions) |
|-----------------------|--|---|---|---|---|
| Alitalia | Alitalia ETS aviation | Oct-21 | 592,533 (6,008) | -1 (-1) | 565,152 (4,905) |
| Stobart Air (Ireland) | Stobart Air Operator account | Jun-21 | 20,302 (0) | Excluded (Excluded) | 0 (0) |
| Ellinair | ELLINAIR S.A. | Jun-21 | 6,495 (17) | -1 (-1) | 3,717 (8) |
| Orange2Fly | ORANGE2FLY | Sep-21 | -1 (Excluded) | -1 (-1) | 0 (0) |
| Blue Panorama | Blue Panorama Airlines S.p.A. | Oct-21 | 6,548 (0) | -1 (-1) | 6,245 (0) |
| | Blue Panorama Airlines S.p.A. in Amministrazione Straordinaria | Oct-21 | Excluded (Excluded) | Excluded (Excluded) | 0 (0) |
| FlyBe* | FLYBE | Ceased operation in Mar-20. Resumed in Apr-21 | 64,568 (319) | -1 (-1) | 197,000 (833) |

Table 1: List of the large bankrupt airlines and their reported and calculated emissions, in tonnes

British Airways, which was a major contributor to the EU ETS in 2019 (ranked 5th largest) and 2020, has not reported their emissions. Given that a large part of its flights are domestic or departing from the UK, its EU ETS 2021 emissions are likely to be affected differently by the change of scope than the overall aviation sector. 2021 and 2020 emissions calculated from PlaneFinder AIS data were

⁵ Sources:

<https://allplane.tv/blog/2021/2/11/2021-airline-bankruptcy-list-now-open>
<https://www.traveldaily.com/key-airlines-that-entered-bankruptcy-due-to-the-pandemic/>
https://en.wikipedia.org/wiki/List_of_airlines_impacted_by_the_COVID-19_pandemic

analysed, to estimate the change in emissions between the 2020 EU ETS, and the 2021 EU ETS. We estimate a 67% decrease in emissions reported by British Airways under the 2021 EU ETS compared to their 2020 reporting.

3. Airline Grouping

Some airlines have different accounts in different member states of the EU. For all intents and purposes, these different accounts are attributable to an airline based on whether or not a passenger believes they are flying with a certain company or not. EasyJet, for example, have four accounts, however they do not have four separate airlines, or websites to book those flights, or are operated by different entities. This differs from subsidiaries, for example Lufthansa owns Brussels Airlines, but Brussels Airlines is a different brand than its parent company. Likewise for stationary installations, where Marista has 3 power plants in Bulgaria, which are within 100km of each other, but each are operated separately and have different owners. Power plants and industry tend not to be outward facing companies, and thus we keep their accounts separate. The airlines that we grouped together are shown in the table below, under an airline alias that is the commonly used name.

| Airline ALIAS | Identifier in ETS log | Note |
|---------------|--|-----------------------------------|
| TUI | 30011.TUI AIRLINES BELGIUM | |
| | Handelskonto TUIfly GmbH | Has not reported its CH emissions |
| | TUI Airlines Nederland BV | |
| | TUIfly Nordic AB | Has not reported its CH emissions |
| | Thomson Airways Limited | |
| Ryanair | Ryanair Sun S.A. | |
| | Ryanair UK Limited | |
| | Ryanair DAC | |
| ASL | 27011.ASL Airlines Belgium | Has not reported its emissions |
| | ASL AIRLINES FRANCE SA | |
| | Farnair Switzerland | Account closed |
| | ASL Airlines (Hungary) Kft. | Account closed |
| | ASL Airlines (Ireland) Limited | |
| FedEx | 11102.FedEx Express Corporate Aviation | Excluded |
| | FEDERAL EXPRESS CORPORATION | |
| EasyJet | easyJet Switzerland SA | Account closed |

| | | |
|-----------------|--|--------------------------------|
| | EACL ETS Account | Has not reported its emissions |
| | EASYJET UK LIMITED | |
| | easyJet Europe Airline GMBH | |
| Norwegian | Norwegian Air Shuttle AOC | |
| | Norwegian Air Sweden AOC AB | |
| | Norwegian Air International Limited AOHA | Excluded |
| | Norwegian Air UK | Has not reported its emissions |
| DHL | European Air Transport Leipzig GmbH | |
| | DHL Air Limited | |
| Iberia | IBERIA LAE SA OPERADORA SU | |
| | Iberia Express, S.A. | |
| Eurowings | Handelskonto der Germanwings GmbH | |
| | Eurowings GmbH | |
| Transavia | TRANSAVIA FRANCE | |
| | Transavia Airlines | Has not reported its emissions |
| Wizz air | WIZZ AIR UK LIMITED | |
| | WIZZ AIR HUNGARY LTD | |
| British Airways | British Airways PLC | Has not reported its emissions |
| | BA CITYFLYER LIMITED | |

4. Free allowances

Under the EU ETS scheme, around 500 aircraft operators⁶ are allocated free allowances. From 2021 onwards, a 2.2% linear reduction factor started applying on these allocations. In order to estimate the value of those free allocations, we used an allowance price of €53.65 per tonne of CO₂, as an average of the 2021 allowance auction prices⁷. Among the top 10 emitters in 2021, easyJet and DHL are the only airlines that have not reported free allocations for accounts that had some in 2020 and

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https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/free-allocation/allocation-aviation_en

⁷ <https://ember-climate.org/data/data-tools/carbon-price-viewer/>

2019. The easyJet account registered as EASYJET UK LIMITED has reported emissions in 2021 and had reported a significant amount of free allowances in 2019 and 2020 (more than 35% of all free allowances allocated to easyJet were from this account). Therefore, we might be underestimating the amount of free allowances and corresponding amount of money allocated to easyJet. DHL might also be missing its allocations from the account registered as DHL air limited, to a smaller extent (less than 1%).

Further information

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