**Assumption Table 4: Routes covered by CORSIA in the first year of the pilot phase (2021) and in the first year of the first phase (2024) and respective emissions (illustrative example)**

|  |  |  |
| --- | --- | --- |
| **Route-based approach** | **Pilot phase** | **First phase** |
| **From** | **To** | **Route Covered?** | **CO2** (2019) | **CO2** (2020) | **CO2** (2021) | **Route Covered?** | **CO2** (2019) | **CO2** (2020) | **CO2** (2024) |
| A | B | Yes | 52 | 54 | 55 | Yes | 52 | 54 | 60 |
| A | C | No | 52 | 54 | 55 | No | 52 | 54 | 60 |
| A | D | Yes | 52 | 54 | 55 | Yes | 52 | 54 | 60 |
| A | E | No | 53 | 56 | 58 | No | 53 | 56 | 68 |
| A | F | No | 53 | 56 | 58 | Yes | 53 | 56 | 68 |
| A | G | No | 53 | 56 | 58 | Yes | 53 | 56 | 68 |
| A | H | No | 54 | 59 | 63 | No | 54 | 59 | 80 |
| A | I | Yes | 54 | 59 | 63 | Yes | 54 | 59 | 80 |
| A | J | No | 54 | 59 | 63 | No | 54 | 59 | 80 |
| B | A | Yes | 52 | 54 | 55 | Yes | 52 | 54 | 60 |
| B | C | No | 52 | 54 | 55 | No | 52 | 54 | 60 |
| B | D | Yes | 52 | 54 | 55 | Yes | 52 | 54 | 60 |
| B | E | No | 52 | 54 | 55 | No | 52 | 54 | 60 |
| B | G | No | 54 | 59 | 63 | Yes | 54 | 59 | 80 |
| B | H | No | 54 | 59 | 63 | No | 54 | 59 | 80 |
| B | I | Yes | 54 | 59 | 63 | Yes | 54 | 59 | 80 |
| B | J | No | 54 | 59 | 63 | No | 54 | 59 | 80 |
| C | A | No | 53 | 56 | 58 | No | 53 | 56 | 68 |
| C | D | No | 53 | 56 | 58 | No | 53 | 56 | 68 |
| D | E | No | 32 | 34 | 35 | No | 32 | 34 | 41 |
| E | F | No | 9 | 10 | 11 | No | 9 | 10 | 14 |
| F | A | No | 7 | 8 | 9 | Yes | 7 | 8 | 12 |
| G | B | No | 5 | 6 | 7 | Yes | 5 | 6 | 10 |
| H | I | No | 2 | 3 | 3 | No | 2 | 3 | 5 |
| Total international aviation CO2 | - | 1062 | 1132 | 1181 | - | 1062 | 1132 | 1402 |
| **TOTAL CO2 COVERED BY CORSIA** | **-** | **316** | **334** | **346** | **-** | **488** | **519** | **638** |

State’s participation in the pilot phase (2021 - 2023) and in the first phase (2024 - 2026) of CORSIA is voluntary, as per Resolution A39-3, paragraph 9. As per Resolution A39-3, paragraph 10, CORSIA applies to international routes between States, both of which participate in the scheme.

For simplicity purpose, under this exercise, we assume that there are only 10 States in the world – States A to J. The combination of international routes, and which routes are covered or not by CORSIA are also assumed in the Assumption Table 4 above, together with the levels of CO2 emissions on each route in the baseline years (2019 and 2020) and in a given year (2021 for the pilot phase, and 2024 for the first phase).

As per Resolution A39-3, paragraph 11, ***the sectoral growth factor in a given year = (A-B) / A,*** *to get the percentage = result \* 100,*

***where A = Total CO2 emissions covered by CORSIA in a given year***

***B = Average of total*** ***CO2 emissions covered by CORSIA between 2019 and 2020.***

For the pilot phase (2021 – 2023), ***the amount of offsetting requirements by an aircraft operator = the sectoral growth factor in a given year X the operator’s CO2 emissions covered by CORSIA either in a given year, or in 2020.***Therefore, the pilot phase provides two options for the use of an operator’s emissions to calculate its offsetting requirements.

For the first phase (2024 – 2026), ***the amount of offsetting requirements by an aircraft operator = the sectoral growth factor in a given year X the operator’s CO2 emissions covered by CORSIA in a given year.***

**Exercise 2-A**

**Instruction for Exercise 2-A:** Based on the Assumption Table 4:

a) Calculate the average of total CO2 emissions covered by CORSIA between 2019 and 2020 for the year 2021

(316 + 334) / 2 = **325.0**

b) Calculate the sectoral growth factor for the year 2021

(346 – 325) / 346 = 0.061 = **6.1%**

c) Calculate the average of total CO2 emissions covered by CORSIA between 2019 and 2020 for the year 2024

(488 + 519) / 2 = **503.5**

d) Calculate the sectoral growth factor for the year 2024

(638 - 503.5) / 638 = 0.211 = **21.1%**

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**Exercise 2-B**

**Instruction for Exercise 2-B:** Based on the results of the Exercise 2-A, and the information on routes of airline A1 in Assumption Table 2 (refer to Exercise 1-A):

a) Calculate the CO2 emissions covered by CORSIA in 2024 by the airline A1

60 + 60 = **120 t CO2** (A1 operates routes A-B, A-C, A-D; route A-C is not covered by CORSIA)

b) Calculate the amount of offsetting requirements in 2024 by the airline A1, as well as the cost if the unit cost for the offsetting requirements is $5:

Offsetting Requirements: 120 x 21.1% = **25.3 offsets**

Cost: 25.3 x $5 = **$126.5**

— END —