

# Recalculations - Copper (Cu)

The marginally small changes within the **1990 National Total (+0.005 t or +0.001 %)** result from a variety of revisions throughout NFRS 1, 2 and 5 - with the strongest percental change occurring in **NFR 1.A.3.a i(i) with minus 62 %**.

Table 1: Changes in emission estimates for 1990

|                            | Submission 2023 | Submission 2024 | Difference    |               | Reasoning                         |
|----------------------------|-----------------|-----------------|---------------|---------------|-----------------------------------|
| NFR Sector                 | [t]             |                 |               | relative      | see description and reasoning in: |
| <b>NATIONAL TOTAL</b>      | <b>619,879</b>  | <b>619,883</b>  | <b>0,005</b>  | <b>0,001%</b> | <b>sub-category chapters</b>      |
| <b>NFR 1 - Energy</b>      | <b>538,009</b>  | <b>538,015</b>  | <b>0,006</b>  | <b>0,001%</b> | <b>sub-category chapters</b>      |
| 1.A.2.g vii                | 0,007           | 0,005           | -0,002        | -28,8%        | <a href="#">here</a>              |
| 1.A.3.a i(i)               | 0,000002        | 0,000001        | -0,000001     | -62,4%        | <a href="#">here</a>              |
| 1.A.3.a ii(i)              | 0,000025        | 0,000027        | 0,000002      | 7,61%         | <a href="#">here</a>              |
| 1.A.3.c                    | 95,160          | 95,166          | 0,006         | 0,01%         | <a href="#">here</a>              |
| 1.A.4.a ii                 | 0,0010          | 0,0009          | -0,0001       | -12,7%        | <a href="#">here</a>              |
| 1.A.4.c ii                 | 1,1129          | 1,1149          | 0,0020        | 0,18%         | <a href="#">here</a>              |
| <b>NFR 2 - IPPU</b>        | <b>81,802</b>   | <b>81,805</b>   | <b>0,003</b>  | <b>0,003%</b> | <b>sub-category chapters</b>      |
| 2.G                        | 36,268          | 36,271          | 0,003         | 0,01%         | <a href="#">here</a>              |
| <b>NFR 3 - Agriculture</b> | <b>0,00</b>     | <b>0,00</b>     | <b>0,00</b>   |               |                                   |
| <b>NFR 5 - Waste</b>       | <b>0,067</b>    | <b>0,063</b>    | <b>-0,004</b> | <b>-5,88%</b> | <b>sub-category chapters</b>      |
| 5.E                        | 0,067           | 0,063           | -0,004        | -5,88%        | <a href="#">here</a>              |
| <b>NFR 6 - Other</b>       | <b>0,00</b>     | <b>0,00</b>     | <b>0,00</b>   |               |                                   |

The changes within the **National Total** reported for **2021 (+0.08 t or +1.53 %)** result from a **variety of revisions throughout NFRs 1, 2 and 5**.

The significant percental change occurring in NFR 1.A.3.b iii (+130 %) results from a correction of erroneous data reported with the previous submission.

Table 2: Changes of emission estimates for 2021

|                       | Submission 2022 | Submission 2023 | Difference    |              | Reasoning                         |
|-----------------------|-----------------|-----------------|---------------|--------------|-----------------------------------|
| NFR Sector            | [t]             |                 |               | relative     | see description and reasoning in: |
| <b>NATIONAL TOTAL</b> | <b>524,59</b>   | <b>529,72</b>   | <b>5,13</b>   | <b>0,98%</b> | <b>sub-category chapters</b>      |
| <b>NFR 1 - Energy</b> | <b>469,12</b>   | <b>474,36</b>   | <b>5,24</b>   | <b>1,12%</b> | <b>sub-category chapters</b>      |
| 1.A.1.a               | 5,85            | 5,81            | -0,04         | -0,67%       | <a href="#">here</a>              |
| 1.A.1.b               | 3,84            | 3,73            | -0,10         | -2,72%       | <a href="#">here</a>              |
| 1.A.1.c               | 0,058           | 0,054           | -0,004        | -7,46%       | <a href="#">here</a>              |
| 1.A.2.g vii           | 0,0067          | 0,0069          | 0,0002        | 2,41%        | <a href="#">here</a>              |
| 1.A.2.g viii          | 0,30            | 0,37            | 0,06          | 21,11%       | <a href="#">here</a>              |
| 1.A.3.a i(i)          | 0,0000000991    | 0,0000000987    | -0,0000000004 | -0,42%       | <a href="#">here</a>              |
| 1.A.3.a ii(i)         | 0,000002560     | 0,000002561     | 0,000000001   | 0,03%        | <a href="#">here</a>              |
| 1.A.3.b i             | 0,1414          | 0,1420          | 0,0006        | 0,39%        | <a href="#">here</a>              |
| 1.A.3.b ii            | 0,0214          | 0,0218          | 0,0005        | 2,17%        | <a href="#">here</a>              |
| 1.A.3.b iii           | 0,0839          | 0,0286          | -0,0553       | -65,91%      | <a href="#">here</a>              |
| 1.A.3.b iv            | 0,00196         | 0,00198         | 0,00002       | 1,11%        | <a href="#">here</a>              |
| 1.A.3.b vi            | 358,94          | 357,42          | -1,52         | -0,42%       | <a href="#">here</a>              |
| 1.A.3.b vii           | 0,03433         | 0,03432         | -0,00002      | -0,05%       | <a href="#">here</a>              |
| 1.A.3.c               | 94,17           | 100,94          | 6,77          | 7,19%        | <a href="#">here</a>              |
| 1.A.3.d ii            | 0,5810          | 0,5810          | -0,0001       | -0,01%       | <a href="#">here</a>              |
| 1.A.4.a i             | 1,57            | 1,61            | 0,03          | 2,14%        | <a href="#">here</a>              |
| 1.A.4.a ii            | 0,00083         | 0,00084         | 0,00001       | 0,89%        | <a href="#">here</a>              |
| 1.A.4.b i             | 2,28            | 2,24            | -0,03         | -1,51%       | <a href="#">here</a>              |
| 1.A.4.b ii            | 0,33            | 0,26            | -0,07         | -21,39%      | <a href="#">here</a>              |

|                            | Submission 2022 | Submission 2023 | Difference      |                 | Reasoning                                |
|----------------------------|-----------------|-----------------|-----------------|-----------------|------------------------------------------|
| <b>NFR Sector</b>          | <b>[t]</b>      |                 |                 | <b>relative</b> | <b>see description and reasoning in:</b> |
| <b>NATIONAL TOTAL</b>      | <b>524,59</b>   | <b>529,72</b>   | <b>5,13</b>     | <b>0,98%</b>    | <b>sub-category chapters</b>             |
| <b>NFR 1 - Energy</b>      | <b>469,12</b>   | <b>474,36</b>   | <b>5,24</b>     | <b>1,12%</b>    | <b>sub-category chapters</b>             |
| 1.A.4.c i                  | 0,08384         | 0,08383         | -0,00001        | -0,01%          | <a href="#">here</a>                     |
| 1.A.4.c ii                 | 0,80            | 1,01            | 0,20            | 25,47%          | <a href="#">here</a>                     |
| <b>NFR 2 - IPPU</b>        | <b>55,40068</b> | <b>55,29302</b> | <b>-0,10766</b> | <b>-0,19%</b>   | <b>sub-category chapters</b>             |
| 2.A.3                      | 0,05840         | 0,05845         | 0,00005         | 0,08%           | <a href="#">here</a>                     |
| 2.G                        | 37,87183        | 37,76412        | -0,10771        | -0,28%          | <a href="#">here</a>                     |
| <b>NFR 3 - Agriculture</b> | <b>NA</b>       |                 |                 |                 |                                          |
| <b>NFR 5 - Waste</b>       | <b>0,07</b>     | <b>0,07</b>     | <b>0,00</b>     | <b>0,00%</b>    |                                          |
| <b>NFR 6 - Other</b>       | <b>NA</b>       |                 |                 |                 |                                          |