

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

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

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

| NFR Sector | Submission 2023 | Submission 2024 | Difference | | Reasoning |
|-----------------------|-----------------|-----------------|-------------|--------------|-----------------------------------|
| | [t] | | | relative | see description and reasoning in: |
| NATIONAL TOTAL | 526,60 | 533,81 | 7,21 | 1,37% | sub-category chapters |
| NFR 1 - Energy | 473,02 | 479,59 | 6,57 | 1,39% | sub-category chapters |
| 1.A.1.a | 6,84 | 6,80 | -0,04 | -0,58% | here |
| 1.A.1.b | 3,85 | 4,04 | 0,20 | 5,11% | here |
| 1.A.1.c | 0,049 | 0,052 | 0,004 | 7,73% | here |
| 1.A.2.a | NE | NE | #WERT! | #WERT! | here |
| 1.A.2.b | IE | IE | #WERT! | #WERT! | here |
| 1.A.2.c | IE | IE | #WERT! | #WERT! | here |
| 1.A.2.d | IE | IE | #WERT! | #WERT! | here |
| 1.A.2.e | NE | NE | #WERT! | #WERT! | here |
| 1.A.2.f | IE | IE | #WERT! | #WERT! | here |
| 1.A.2.g vii | 0,007 | 0,005 | -0,002 | -32,8% | here |
| 1.A.2.g viii | 0,35 | 0,33 | -0,02 | -4,75% | here |
| 1.A.3.a i(i) | 0,00000026 | 0,00000025 | -0,00000001 | -5,24% | here |
| 1.A.3.a ii(i) | 0,000003302 | 0,000003305 | 0,000000002 | 0,07% | here |
| 1.A.3.b i | 0,1435 | 0,1420 | -0,0015 | -1,04% | here |
| 1.A.3.b ii | 0,02375 | 0,02331 | -0,00045 | -1,88% | here |
| 1.A.3.b iii | 0,03 | 0,08 | 0,05 | 130% | here |
| 1.A.3.b iv | 0,00180 | 0,00182 | 0,00002 | 1,02% | here |
| 1.A.3.b v | NA | NA | #WERT! | #WERT! | here |
| 1.A.3.b vi | 361,03 | 361,57 | 0,54 | 0,15% | here |

| | Submission 2023 | Submission 2024 | Difference | | Reasoning |
|-----------------------|-----------------|-----------------|---------------|-----------------|--|
| NFR Sector | | [t] | | relative | see description and reasoning in: |
| NATIONAL TOTAL | 526,60 | 533,81 | 7,21 | 1,37% | sub-category chapters |
| NFR 1 - Energy | 473,02 | 479,59 | 6,57 | 1,39% | sub-category chapters |
| 1.A.3.b vii | 0,03464 | 0,03466 | 0,00001 | 0,03% | here |
| 1.A.3.c | 94,21 | 99,62 | 5,41 | 5,74% | here |
| 1.A.3.d i(ii) | IE | IE | #WERT! | #WERT! | |
| 1.A.3.d ii | 0,60 | 0,66 | 0,06 | 10,0% | here |
| 1.A.3.e i | NA | NA | #WERT! | #WERT! | 1.A.3.e i - Pipeline Transport] |
| 1.A.3.e ii | NA | | | | 1.A.3.e ii - Other Transport: Other] |
| 1.A.4.a i | 1,81 | 1,85 | 0,04 | 2,14% | here |
| 1.A.4.a ii | 0,00081 | | | | here |
| 1.A.4.b i | 2,642427 | 2,642429 | 0,000002 | 0,0001% | here |
| 1.A.4.b ii | 0,25 | 0,26 | 0,01 | 4,60% | here |
| 1.A.4.c i | 0,0964 | 0,0967 | 0,0003 | 0,27% | here |
| 1.A.4.c ii | 1,04 | 1,37 | 0,33 | 31,55% | here |
| 1.A.4.c iii | 0,0054305 | 0,0054305 | 0,0000000 | 0,00% | here |
| 1.A.5.a | NE | NE | #WERT! | #WERT! | here |
| 1.A.5.b | 0,0026466 | 0,0026466 | 0,0000000 | 0,00% | here |
| 1.B.1.a | NA | NA | #WERT! | #WERT! | here |
| 1.B.1.b | NA | NA | #WERT! | #WERT! | here |
| 1.B.1.c | NA | NA | #WERT! | #WERT! | here |
| 1.B.2.a i | NA | NA | #WERT! | #WERT! | |
| 1.B.2.a iv | NA | NA | #WERT! | #WERT! | |
| 1.B.2.a v | NA | NA | #WERT! | #WERT! | |
| 1.B.2.b | NA | NA | #WERT! | #WERT! | |
| 1.B.2.c | NA | NA | #WERT! | #WERT! | |
| 1.B.2.d | NA | NA | #WERT! | #WERT! | |
| NFR 2 - IPPU | 53,52 | 54,16 | 0,64178 | 1,20% | sub-category chapters |
| 2.A.1 | NE | NE | #WERT! | #WERT! | here |
| 2.A.2 | NA | NA | #WERT! | #WERT! | here |
| 2.A.3 | 0,06452 | 0,06457 | 0,00004 | 0,07% | here |
| 2.A.5.a | NA | NA | #WERT! | #WERT! | here |
| 2.A.5.b | NA | NA | #WERT! | #WERT! | here |
| 2.A.5.c | NA | NA | #WERT! | #WERT! | here |
| 2.A.6 | NA | NA | #WERT! | #WERT! | here |
| 2.B.1 | NA | NA | #WERT! | #WERT! | here |
| 2.B.2 | NA | NA | #WERT! | #WERT! | here |
| 2.B.3 | NA | NA | #WERT! | #WERT! | here |
| 2.B.5 | NA | NA | #WERT! | #WERT! | here |
| 2.B.6 | NA | NA | #WERT! | #WERT! | here |
| 2.B.7 | NA | NA | #WERT! | #WERT! | here |
| 2.B.10.a | NA | NA | #WERT! | #WERT! | here |
| 2.B.10.b | NA | NA | #WERT! | #WERT! | here |
| 2.C.1 | NE | NE | #WERT! | #WERT! | here |
| 2.C.2 | NA | NA | #WERT! | #WERT! | here |
| 2.C.3 | 0,0047478 | 0,0047478 | 0,0000000 | 0,00% | here |
| 2.C.4 | NA | NA | #WERT! | #WERT! | here |
| 2.C.5 | 0,0105484 | 0,0105484 | 0,0000000 | 0,00% | here |
| 2.C.6 | NA | NA | #WERT! | #WERT! | here |
| 2.C.7.a | 17,3700228 | 17,3700228 | 0,0000000 | 0,00% | here |
| 2.C.7.b | NO | NO | #WERT! | #WERT! | here |
| 2.C.7.c | NA | NA | #WERT! | #WERT! | here |
| 2.C.7.d | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.a | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.b | NA | NA | #WERT! | #WERT! | here |

| | Submission 2023 | Submission 2024 | Difference | | Reasoning |
|-----------------------|-----------------|-----------------|-------------|-----------------|--|
| NFR Sector | | [t] | | relative | see description and reasoning in: |
| NATIONAL TOTAL | 526,60 | 533,81 | 7,21 | 1,37% | sub-category chapters |
| NFR 1 - Energy | 473,02 | 479,59 | 6,57 | 1,39% | sub-category chapters |
| 2.D.3.c | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.d | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.e | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.f | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.g | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.h | NA | NA | #WERT! | #WERT! | here |
| 2.D.3.i | NA | NA | #WERT! | #WERT! | here |
| 2.G | 36,06899 | 36,71073 | 0,64173 | 1,78% | here |
| 2.H.1 | NA | NA | #WERT! | #WERT! | here |
| 2.H.2 | NA | NA | #WERT! | #WERT! | here |
| 2.H.3 | NA | NA | #WERT! | #WERT! | here |
| 2.I | NA | NA | #WERT! | #WERT! | here |
| 2.J | NO | NO | #WERT! | #WERT! | here |
| 2.K | NA | NA | #WERT! | #WERT! | here |
| 2.L | NA | NA | #WERT! | #WERT! | here |
| NFR 3 - Agriculture | 0,0000000 | 0,0000000 | 0,0000000 | #DIV/0! | sub-category chapters |
| 3.B.1.a | NA | NA | #WERT! | #WERT! | here |
| 3.B.1.b | NA | NA | #WERT! | #WERT! | here |
| 3.B.2 | NA | NA | #WERT! | #WERT! | here |
| 3.B.3 | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.a | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.d | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.e | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.f | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.g i | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.g ii | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.g iii | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.g iv | NA | NA | #WERT! | #WERT! | here |
| 3.B.4.h | NA | NA | #WERT! | #WERT! | here |
| 3.D.a.1 | NA | NA | #WERT! | #WERT! | here |
| 3.D.a.2.a | NA | NA | #WERT! | #WERT! | here |
| 3.D.a.2.b | NA | NA | #WERT! | #WERT! | here |
| 3.D.a.2.c | NA | NA | #WERT! | #WERT! | here |
| 3.D.a.3 | NA | NA | #WERT! | #WERT! | here |
| 3.D.a.4 | NA | NA | #WERT! | #WERT! | here |
| 3.D.b | NA | NA | #WERT! | #WERT! | here |
| 3.D.c | NA | NA | #WERT! | #WERT! | here |
| 3.D.d | NA | NA | #WERT! | #WERT! | here |
| 3.D.e | NA | NA | #WERT! | #WERT! | here |
| 3.D.f | NA | NA | #WERT! | #WERT! | here |
| 3.F | NO | NO | #WERT! | #WERT! | |
| 3.I | NA | NA | #WERT! | #WERT! | here |
| NFR 5 - Waste | 0,069 | 0,065 | -0,004 | -5,72% | sub-category chapters |
| 5.A | NA | NA | #WERT! | #WERT! | here |
| 5.B.1 | NA | NA | #WERT! | #WERT! | here |
| 5.B.2 | NA | NA | #WERT! | #WERT! | here |
| 5.C.1.a | NO | NO | #WERT! | #WERT! | |
| 5.C.1.b i | NO | NO | #WERT! | #WERT! | |
| 5.C.1.b ii | NO | NO | #WERT! | #WERT! | |
| 5.C.1.b iii | NO | NO | #WERT! | #WERT! | |
| 5.C.1.b iv | NO | NO | #WERT! | #WERT! | |
| 5.C.1.b v | NE | NE | #WERT! | #WERT! | here |

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|-----------------------|-----------------|-----------------|-------------|-----------------|--|
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| NATIONAL TOTAL | 526,60 | 533,81 | 7,21 | 1,37% | sub-category chapters |
| NFR 1 - Energy | 473,02 | 479,59 | 6,57 | 1,39% | sub-category chapters |
| 5.C.1.b vi | NA | NA | #WERT! | #WERT! | |
| 5.C.2 | NE | NE | #WERT! | #WERT! | here |
| 5.D.1 | NA | NA | #WERT! | #WERT! | here |
| 5.D.2 | NA | NA | #WERT! | #WERT! | here |
| 5.D.3 | NO | NO | #WERT! | #WERT! | |
| 5.E | 0,069 | 0,065 | -0,004 | -5,72% | here |
| NFR 6 - Other | 0,0000000 | 0,0000000 | 0,0000000 | #DIV/0! | |