

Recalculations - Carbon monoxide (CO)

The significant changes in the **National Total** reported for **1990 (+273 kt or +2.1 %)** are dominated by a revision in NFRs **1.A.3.b i** (+268 kt) and **1.A.3.b ii** (+13 kt) . Furthermore, CO emissions from NFR **2.H.1** have been estimated for the first time (NE -> 0.11 kt).

Additional smaller changes occur throughout NFRs 1 and 2.

Table 1: Changes in emission estimates for 1990

| NFR Sector | Submission 2022 | Submission 2023 | Difference | | Reasoning |
|----------------------------|------------------|------------------|---------------|--------------|---|
| | [kt] | | absolute | relative | |
| NATIONAL TOTAL | 13.046,02 | 13.319,09 | 273,07 | 2,09% | see description and reasoning in: sub-category chapters |
| NFR 1 - Energy | 11.772,32 | 12.045,28 | 272,96 | 2,32% | sub-category chapters |
| 1.A.2.g vii | 82,70 | 82,82 | 0,12 | 0,15% | here |
| 1.A.3.a i(i) | 3,64 | 3,42 | -0,22 | -5,96% | here |
| 1.A.3.a ii(i) | 6,31 | 6,18 | -0,13 | -2,07% | here |
| 1.A.3.b i | 6.647 | 6.915 | 268 | 4,03% | here |
| 1.A.3.b ii | 315,30 | 328,37 | 13,07 | 4,15% | here |
| 1.A.3.b iii | 135,46 | 128,59 | -6,87 | -5,07% | here |
| 1.A.3.b iv | 226,62 | 225,59 | -1,03 | -0,46% | here |
| 1.A.4.a ii | 7,04 | 7,03 | -0,01 | -0,16% | here |
| 1.A.4.b ii | 54,00 | 54,02 | 0,02 | 0,04% | here |
| 1.A.4.c ii | 100,83 | 100,78 | -0,05 | -0,05% | here |
| NFR 2 - IPPU | 1.248,66 | 1.248,77 | 0,11 | 0,01% | sub-category chapters |
| 2.H.1 | NE | 0,11 | 0,11 | | here |
| NFR 3 - Agriculture | NA | | | | |
| NFR 5 - Waste | 25,04 | 25,04 | 0,00 | 0,00% | |
| NFR 6 - Other | NA | | | | |

The negligibly small changes in the **National Total** reported for **2020 (-1.53 kt or -0.06 %)** result mainly from **partly opposing revisions within NFRs 1.A and 2** together with other more or less significant revisions in NFRs 1 and 2.

Furthermore, CO emissions from NFR **2.H.1** have been estimated for the first time (NE -> 0.53 kt).

Here, the most significant percental change occurs for **NFR 2.A.3 with minus 34.3%**

Table 2: Changes in emission estimates for 2020

| NFR Sector | Submission 2022 | Submission 2023 | Difference | | Reasoning |
|-----------------------|-----------------|-----------------|--------------|---------------|---|
| | [kt] | | absolute | relative | |
| NATIONAL TOTAL | 2.452,06 | 2.450,53 | -1,53 | -0,06% | see description and reasoning in: sub-category chapters |
| NFR 1 - Energy | 1.705,99 | 1.704,20 | -1,79 | -0,11% | sub-category chapters |
| 1.A.1.a | 84,76 | 85,09 | 0,33 | 0,40% | here |
| 1.A.1.b | 1,76 | 1,89 | 0,13 | 7,20% | here |
| 1.A.1.c | 12,21 | 12,06 | -0,15 | -1,24% | here |
| 1.A.2.a | 26,94 | 25,28 | -1,66 | -6,16% | here |
| 1.A.2.b | 0,138 | 0,136 | -0,002 | -1,49% | here |
| 1.A.2.e | 0,074 | 0,071 | -0,003 | -3,89% | here |
| 1.A.2.f | 1,41 | 1,43 | 0,02 | 1,51% | here |
| 1.A.2.g vii | 129,10 | 156,70 | 27,60 | 21,38% | here |
| 1.A.2.g viii | 17,25 | 18,46 | 1,21 | 7,00% | here |
| 1.A.3.a i(i) | 2,74 | 2,56 | -0,18 | -6,58% | here |
| 1.A.3.a ii(i) | 1,77 | 1,68 | -0,09 | -5,12% | here |
| 1.A.3.b i | 642,84 | 625,44 | -17,40 | -2,71% | here |
| 1.A.3.b ii | 36,81 | 36,47 | -0,34 | -0,92% | here |
| 1.A.3.b iii | 32,49 | 40,53 | 8,04 | 24,76% | here |

| | Submission 2022 | Submission 2023 | Difference | | Reasoning |
|----------------------------|-----------------|-----------------|--------------|-----------------|--|
| NFR Sector | [kt] | | | relative | see description and reasoning in: |
| NATIONAL TOTAL | 2.452,06 | 2.450,53 | -1,53 | -0,06% | sub-category chapters |
| NFR 1 - Energy | 1.705,99 | 1.704,20 | -1,79 | -0,11% | sub-category chapters |
| 1.A.3.b iv | 68,00 | 69,19 | 1,19 | 1,75% | here |
| 1.A.3.c | 1,11 | 1,21 | 0,10 | 8,60% | here |
| 1.A.3.d ii | 3,32 | 3,37 | 0,04 | 1,29% | here |
| 1.A.4.a i | 46,12 | 47,75 | 1,62 | 3,52% | here |
| 1.A.4.a ii | 2,35 | 2,09 | -0,26 | -11,05% | here |
| 1.A.4.b i | 398,49 | 393,03 | -5,46 | -1,37% | here |
| 1.A.4.b ii | 106,65 | 82,38 | -24,26 | -22,75% | here |
| 1.A.4.c i | 14,92 | 14,90 | -0,02 | -0,15% | here |
| 1.A.4.c ii | 60,04 | 67,74 | 7,70 | 12,83% | here |
| 1.A.4.c iii | 0,04 | 0,04 | 0,00 | 0,00% | here |
| 1.A.5.a | 1,20 | 1,27 | 0,07 | 5,51% | here |
| 1.A.5.b | 8,91 | 8,89 | -0,02 | -0,17% | here |
| 1.B.1.b | 3,827 | 3,828 | 0,001 | 0,03% | here |
| NFR 2 - IPPU | 738,131 | 738,392 | 0,26 | 0,04% | sub-category chapters |
| 2.A.3 | 0,80 | 0,52 | -0,27 | -34,30% | here |
| 2.H.1 | NE | 0,53 | 0,53 | | here |
| NFR 3 - Agriculture | NA | | | | |
| NFR 5 - Waste | 7,94 | 7,94 | 0,00 | 0,00% | |
| NFR 6 - Other | NA | | | | |