

Recalculations - Sulphur Oxides

The marginal changes in the **National Total reported for 1990 (+1.51 kt | +0.03 %)** result almost entirely from revised emission estimates in **NFR 2.C.7.a** together with less significant changes throughout NFRs 1 and 2.

Table 1: Changes in emission estimates for 1990

| NFR Code | Submission 2020 | Submission 2021 | Difference | | Reasoning |
|-----------------------|-----------------|-----------------|---------------|---------------|---|
| | [kt] | | absolute | relative | |
| NATIONAL TOTAL | 5.474,42 | 5.460,02 | -14,40 | -0,26% | see description and reasoning in: sub-category chapters |
| NFR 1 - Energy | 5.297,93 | 5.284,38 | -13,55 | -0,26% | sub-category chapters |
| 1.A.1.a | 2.435,31 | 2.435,31 | 0,00 | 0,00% | here |
| 1.A.1.b | 161,49 | 161,49 | 0,00 | 0,00% | here |
| 1.A.1.c | 538,70 | 538,70 | 0,00 | 0,00% | here |
| 1.A.2.a | 39,53 | 39,53 | 0,00 | 0,00% | here |
| 1.A.2.b | 6,86 | 6,86 | 0,00 | 0,00% | here |
| 1.A.2.c | IE | IE | #WERT! | #WERT! | here |
| 1.A.2.d | IE | IE | #WERT! | #WERT! | here |
| 1.A.2.e | 13,25 | 13,25 | 0,00 | 0,00% | here |
| 1.A.2.f | 11,12 | 11,12 | 0,00 | 0,00% | here |
| 1.A.2.g vii | 3,84 | 3,84 | 0,00 | 0,00% | here |
| 1.A.2.g viii | 832,30 | 832,30 | 0,00 | 0,00% | here |
| 1.A.3.a i(i) | 0,26 | 0,26 | 0,00 | 0,00% | here |
| 1.A.3.a ii(i) | | 0,18 | | | here |
| 1.A.3.b i | 33,07 | 33,07 | 0,00 | 0,00% | here |
| 1.A.3.b ii | | 2,34 | | | here |
| 1.A.3.b iii | 36,55 | 36,55 | 0,00 | 0,00% | here |
| 1.A.3.b iv | 0,22 | 0,22 | 0,00 | 0,00% | here |
| 1.A.3.b v | NA | NA | #WERT! | #WERT! | here |
| 1.A.3.b vi | NA | NA | #WERT! | #WERT! | here |
| 1.A.3.b vii | NA | NA | #WERT! | #WERT! | here |
| 1.A.3.c | 7,73 | 8,24 | 0,51 | 6,56% | here |
| 1.A.3.d i(ii) | IE | IE | #WERT! | #WERT! | |
| 1.A.3.d ii | 24,67 | 10,87 | -13,80 | -55,94% | here |
| 1.A.3.e i | 0,00 | 0,00 | 0,00 | 0,00% | 1.A.3.e i - Pipeline Transport] |
| 1.A.3.e ii | NA | NA | #WERT! | #WERT! | 1.A.3.e ii - Other Transport: Other] |
| 1.A.4.a i | 360,29 | 360,29 | 0,00 | 0,00% | here |
| 1.A.4.a ii | 0,63 | 0,63 | 0,00 | 0,00% | here |
| 1.A.4.b i | 607,80 | 607,80 | 0,00 | 0,00% | here |
| 1.A.4.b ii | 0,02 | 0,02 | 0,00 | 0,00% | here |
| 1.A.4.c i | 51,90 | 51,90 | 0,00 | 0,00% | here |
| 1.A.4.c ii | 4,49 | 4,49 | 0,00 | 0,00% | here |
| 1.A.4.c iii | 0,36 | 0,19 | -0,18 | -48,74% | here |
| 1.A.5.a | 65,82 | 65,82 | 0,00 | 0,00% | here |
| 1.A.5.b | 3,55 | 3,47 | -0,08 | -2,27% | here |
| 1.B.1.a | NA | NA | #WERT! | #WERT! | here |
| 1.B.1.b | 38,19 | 38,19 | 0,00 | 0,00% | here |
| 1.B.1.c | NA | NA | #WERT! | #WERT! | here |
| 1.B.2.a i | NA | NA | #WERT! | #WERT! | |
| 1.B.2.a iv | 5,1799 | 5,1799 | 0,00 | 0,00% | |
| 1.B.2.a v | NA | NA | #WERT! | #WERT! | |
| 1.B.2.b | 0,01 | 0,01 | 0,00 | 0,00% | |
| 1.B.2.c | 12,26 | 12,26 | 0,00 | 0,00% | |
| 1.B.2.d | NA | NA | #WERT! | #WERT! | |
| NFR 2 - IPPU | 176,39 | 175,54 | -0,85 | -0,48% | sub-category chapters |
| 2.A.1 | 8,89 | 8,89 | 0,00 | 0,00% | here |
| 2.A.2 | 1,49 | 1,49 | 0,00 | 0,00% | here |
| 2.A.3 | 13,52 | 13,52 | 0,00 | 0,00% | 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 |

| | Submission 2020 | Submission 2021 | Difference | | Reasoning |
|----------------------------|-----------------|-----------------|---------------|-----------------------------------|------------------------------|
| NFR Code | [kt] | | relative | see description and reasoning in: | |
| NATIONAL TOTAL | 5.474,42 | 5.460,02 | -14,40 | -0,26% | sub-category chapters |
| NFR 1 - Energy | 5.297,93 | 5.284,38 | -13,55 | -0,26% | sub-category chapters |
| 2.A.6 | 17,40 | 17,40 | 0,00 | 0,00% | 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 | C | 1,73 | #WERT! | #WERT! | here |
| 2.B.7 | NA | NA | #WERT! | #WERT! | here |
| 2.B.10.a | 56,50 | 53,93 | -2,58 | -4,56% | here |
| 2.B.10.b | NA | NA | #WERT! | #WERT! | here |
| 2.C.1 | 34,50 | 34,50 | 0,00 | 0,00% | here |
| 2.C.2 | NE | NE | #WERT! | #WERT! | here |
| 2.C.3 | 4,81 | 4,81 | 0,00 | 0,00% | here |
| 2.C.4 | NA | NA | #WERT! | #WERT! | here |
| 2.C.5 | 0,72 | 0,72 | 0,00 | 0,00% | here |
| 2.C.6 | 0,50 | 0,50 | 0,00 | 0,00% | here |
| 2.C.7.a | 2,94 | 2,94 | 0,00 | 0,00% | here |
| 2.C.7.b | 0,02 | 0,02 | 0,00 | 0,00% | here |
| 2.C.7.c | NE | NE | #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 | 1,50 | 1,50 | 0,00 | 0,00% | here |
| 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 | 0,0546 | 0,0546 | 0,0000 | 0,00% | here |
| 2.H.1 | 33,55 | 33,55 | 0,00 | 0,00% | 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 | NE | NE | #WERT! | #WERT! | here |
| 2.K | NA | NA | #WERT! | #WERT! | here |
| 2.L | NA | NA | #WERT! | #WERT! | here |
| NFR 3 - Agriculture | 0,00 | 0,00 | 0,00 | #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 | NO | NO | #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 |

| | Submission 2020 | Submission 2021 | Difference | | Reasoning |
|----------------------------|-----------------|-----------------|---------------|-----------------------------------|--|
| NFR Code | [kt] | | relative | see description and reasoning in: | |
| NATIONAL TOTAL | 5.474,42 | 5.460,02 | -14,40 | -0,26% | sub-category chapters |
| NFR 1 - Energy | 5.297,93 | 5.284,38 | -13,55 | -0,26% | sub-category chapters |
| 3.D.f | NA | NA | #WERT! | #WERT! | here |
| 3.F | NO | NO | #WERT! | #WERT! | |
| 3.I | NA | NA | #WERT! | #WERT! | here |
| NFR 5 - Waste | 0,11 | 0,11 | 0,00 | 0,00% | 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 | 0,02 | 0,02 | 0,00 | 0,00% | here |
| 5.C.1.b vi | NA | NA | #WERT! | #WERT! | |
| 5.C.2 | 0,09 | 0,09 | 0,00 | 0,00% | 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 | NE | NE | #WERT! | #WERT! | here |
| NFR 6 - Other | 0,00 | 0,00 | 0,00 | #DIV/0! | Changes in the National Total reported for 2018 (+2.8 kt +1 %) result mainly from revisions in NFR sub-categories 1.A.1.a, 1.A.1.b, 1.A.1.c and 1.A.2.g viii together with less relevant changes throughout NFRs 1 and 2 . Table 2: Changes in emission estimates for 2018 [^] [^] Submission 2020 [^] [^] Submission 2021 [^] [^] Difference [^] [^] Reasoning [^] [^] NFR Code [^] [^] [kt] [^] [^] relative [^] [^] see description and reasoning in: [^] [^] NATIONAL TOTAL [^] 288,97 [^] 291,78 [^] 2,81 [^] 0,97% [^] sub-category chapters [^] [^] NFR 1 - Energy [^] 219,59 [^] 222,08 [^] 2,49 [^] 1,13% [^] sub-category chapters [^] 1.A.1.a 120,87 123,03 2,16 1,78% [[sector:energy:fuel_combustion:energy_industries:public_electricity_and_heat_production] here |
| 1.A.1.b | 31,02 | 32,70 | 1,68 | 5,42% | here |
| 1.A.1.c | 7,98 | 9,54 | 1,56 | 19,61% | here |
| 1.A.2.a | 5,08 | 5,01 | -0,07 | -1,33% | here |
| 1.A.2.b | 0,40 | 0,39 | -0,01 | -3,38% | here |
| 1.A.2.e | 0,74 | 0,80 | 0,05 | 7,03% | here |
| 1.A.2.g vii | 0,017 | 0,018 | 0,001 | 7,64% | here |
| 1.A.2.g viii | 29,41 | 26,44 | -2,97 | -10,11% | here |
| 1.A.3.a i(i) | 0,67 | 0,65 | -0,02 | -2,40% | here |
| 1.A.3.a ii(i) | 0,15 | 0,16 | 0,01 | 9,19% | here |
| 1.A.3.b i | 0,506 | 0,515 | 0,01 | 1,75% | here |
| 1.A.3.b ii | 0,059 | 0,060 | 0,001 | 0,97% | here |
| 1.A.3.b iii | 0,25 | 0,24 | -0,01 | -3,36% | here |
| 1.A.3.b iv | 0,0070 | 0,0069 | -0,0001 | -1,19% | here |
| 1.A.3.c | 0,2251 | 0,2246 | -0,0005 | -0,23% | here |
| 1.A.3.d ii | 0,6685 | 0,6782 | 0,01 | 1,45% | here |
| 1.A.3.e i | 0,00332 | 0,00334 | 0,00002 | 0,45% | here |
| 1.A.4.a i | 1,06 | 1,01 | -0,05 | -5,06% | here |
| 1.A.4.a ii | 0,005 | 0,004 | 0,001 | -18,48% | here |
| 1.A.4.b i | 11,92 | 12,12 | 0,20 | 1,64% | here |
| 1.A.4.c i | 2,38 | 2,32 | -0,06 | -2,56% | here |
| 1.A.4.c ii | 0,0220 | 0,0213 | -0,0006 | -2,90% | here |
| 1.A.4.c iii | 0,1068 | 0,1097 | 0,0029 | 2,70% | here |
| 1.A.5.a | 0,02647 | 0,02651 | 0,00004 | 0,16% | here |
| 1.A.5.b | 0,0229 | 0,0230 | 0,0001 | 0,32% | here |
| 1.B.1.b | 0,811 | 0,806 | -0,005 | -0,62% | here |
| NFR 2 - IPPU | 69,24 | 69,57 | 0,32 | 0,47% | sub-category chapters |
| 2.A.3 | 10,24 | 10,22 | -0,02 | -0,19% | here |
| 2.C.7.a | 2,01 | 2,37 | 0,36 | 17,72% | here |
| 2.G | 0,14 | 0,13 | -0,01 | -9,46% | here |
| NFR 3 - Agriculture | NA | | | | |

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|---------------------------|--------------------|--------------------|---------------|---------------|-----------------------------------|
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| NFR 1 - Energy | 5.297,93 | 5.284,38 | -13,55 | -0,26% | sub-category chapters |
| NFR 5 - Waste | 0,14 | 0,14 | 0,00 | 0,00% | |
| NFR 6 - Other | NA | | | | |