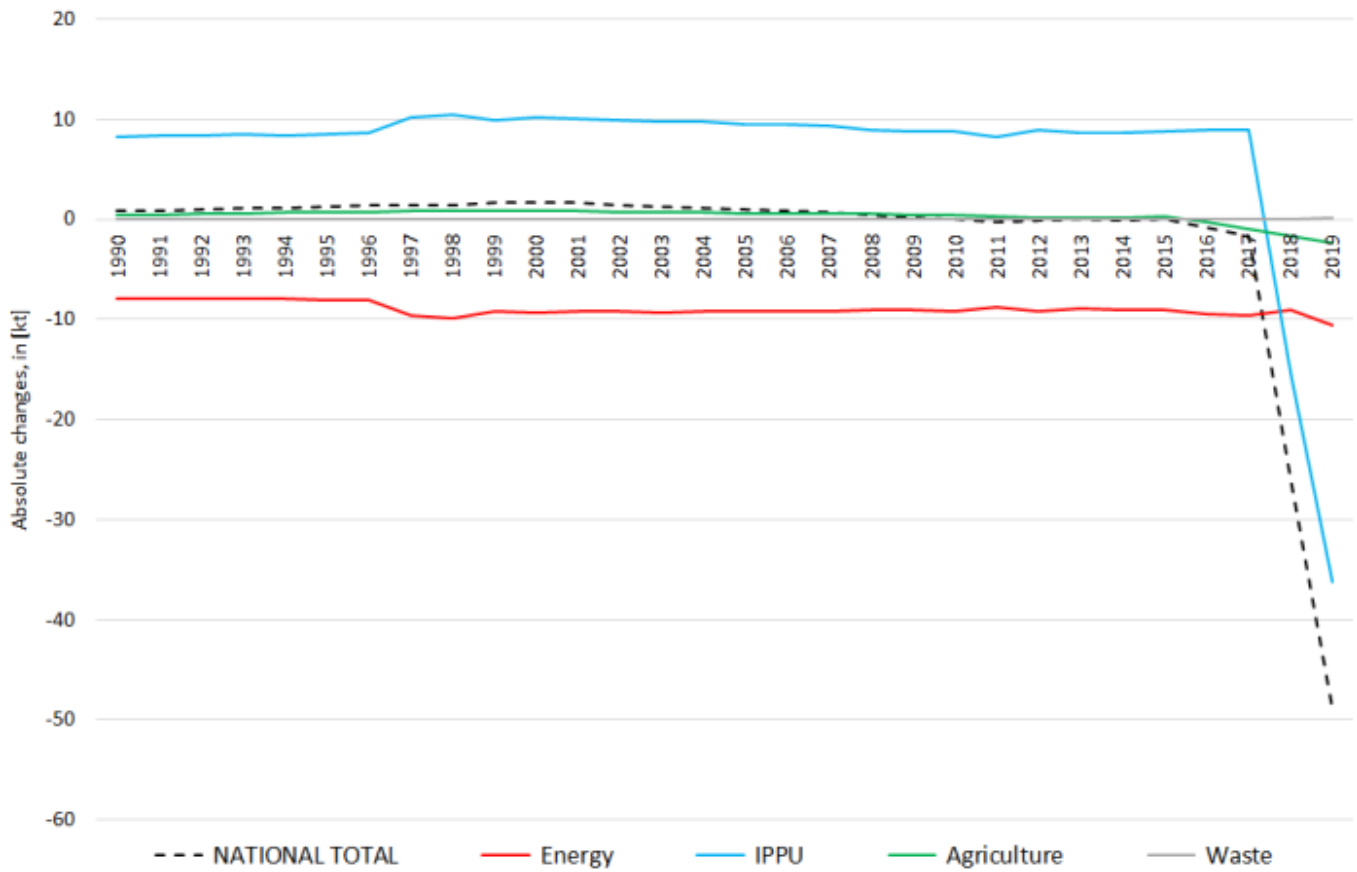
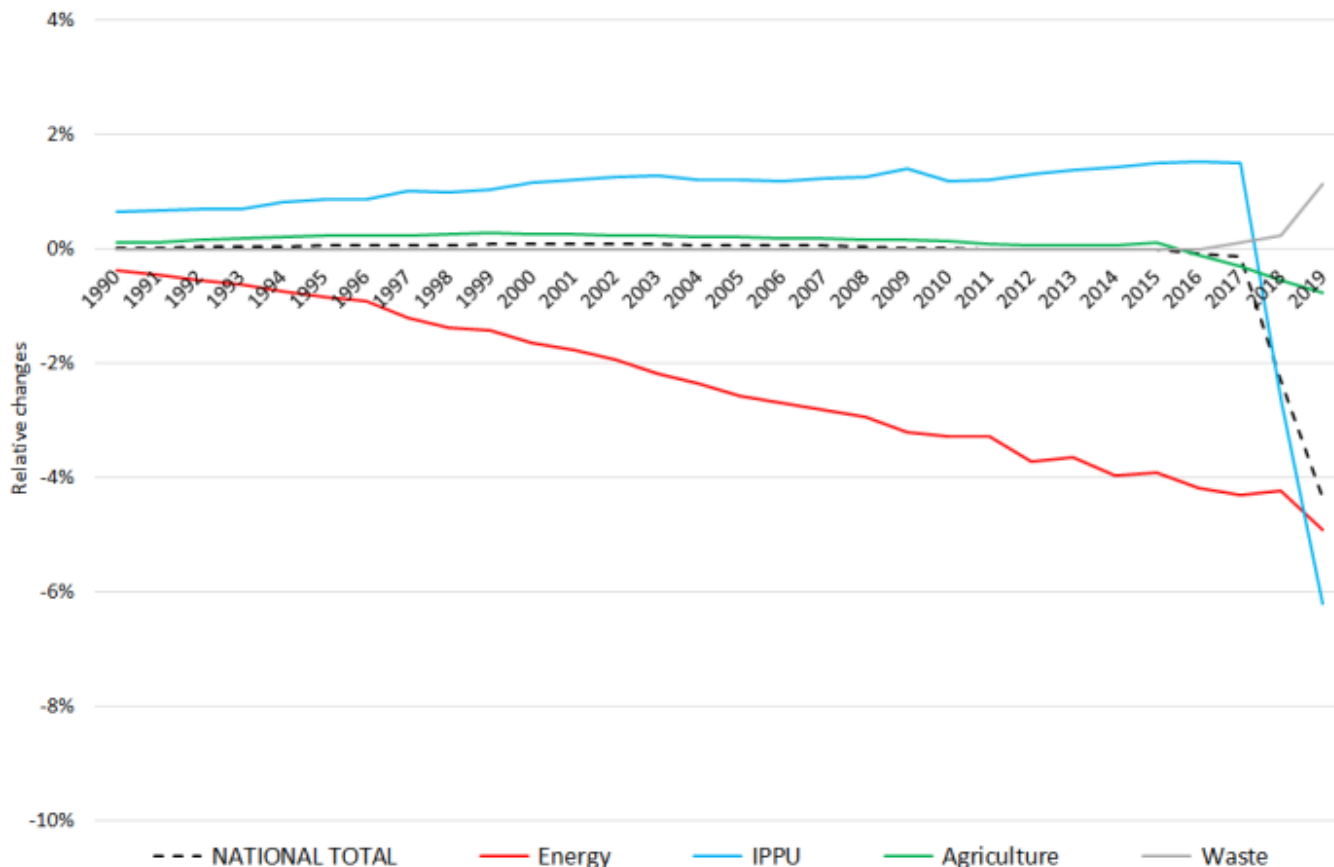


Recalculations - Non-Methane Volatile Organic Compounds

Revision of NMVOC emissions over time





The significant changes within the **National Total reported for 1990 (-142 kt | -3.53 %)** are dominated by revisions in **NFR sub-category 1.A.3.b i (-71.6 kt | -6 %)** and **NFR 3 (-48.6 kt |-11 %)**.

Table 1: Changes in emission estimates for 1990

| absolute changes in emissions reported for 1990 | | | | | Submission 2021 | Submission 2022 | Difference | Reasoning |
|---|-----------------|-----------------|--------------|---------------|---|-----------------|------------|-----------|
| | | | | | | | | |
| NFR Code | [kt] | | | relative | see description and reasoning in: sub-category chapters | | | |
| NATIONAL TOTAL | 3.890,85 | 3.891,58 | 0,73 | 0,02% | sub-category chapters | | | |
| NFR 1 - Energy | 2.170,57 | 2.162,57 | -8,00 | -0,37% | sub-category chapters | | | |
| 1.A.3.a i(i) | 0,80 | 0,80 | 0,00 | -0,49% | here | | | |
| 1.A.3.a ii(i) | 0,50 | 0,42 | -0,08 | -15,49% | here | | | |
| 1.A.3.b i | 1.119,06 | 1.119,06 | 0,00 | 0,00% | here | | | |
| 1.A.3.b ii | 39,73 | 39,73 | 0,00 | 0,00% | here | | | |
| 1.A.3.b iii | 60,10 | 60,12 | 0,02 | 0,03% | here | | | |
| 1.A.3.c | 4,19 | 4,22 | 0,03 | 0,718% | here | | | |
| 1.A.3.d ii | 3,20 | 3,27 | 0,07 | 2,106% | here | | | |

| absolute changes in emissions reported for 1990 | | | | | Submission 2021 | Submission 2022 | Difference | Reasoning |
|---|------------------------------|-----------------|--------------|---------------|-----------------------|-----------------------------------|------------|-----------|
| | | | | | | | | |
| NFR Code | [kt] | | | | relative | see description and reasoning in: | | |
| NATIONAL TOTAL | 3.890,85 | 3.891,58 | 0,73 | 0,02% | sub-category chapters | | | |
| NFR 1 - Energy | 2.170,57 | 2.162,57 | -8,00 | -0,37% | sub-category chapters | | | |
| 1.A.4.b ii | 12,48 | 12,52 | 0,04 | 0,32% | here | | | |
| 1.A.4.c iii | 0,04 | 0,02 | -0,02 | -54,62% | here | | | |
| 1.A.5.b | 21,32 | 21,30 | -0,02 | -0,10% | here | | | |
| 1.B.2.a iv | 81,24 | 73,15 | -8,09 | -9,96% | | | | |
| 1.B.2.a v | 87,73 | 87,79 | 0,05 | 0,06% | | | | |
| NFR 2 - IPPU | 1.283,34 1.291,63 8,30 0,65% | | | | sub-category chapters | | | |
| 2.A.1 | 1,33 | 1,33 | 0,00 | 0,00% | here | | | |
| 2.A.2 | 0,33 | 0,33 | 0,00 | 0,00% | here | | | |
| 2.A.3 | 0,56 | 0,56 | 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 | | | |
| 2.A.6 | IE | IE | #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 | 52,28 | 52,28 | 0,00 | 0,00% | here | | | |
| 2.B.10.b | NA | 8,09 | #WERT! | #WERT! | here | | | |
| 2.C.1 | 6,57 | 6,57 | 0,00 | 0,00% | here | | | |
| 2.C.2 | NE | NE | #WERT! | #WERT! | here | | | |
| 2.C.3 | NE | NE | #WERT! | #WERT! | here | | | |
| 2.C.4 | NE | NE | #WERT! | #WERT! | here | | | |
| 2.C.5 | NA | NA | #WERT! | #WERT! | here | | | |
| 2.C.6 | NA | NA | #WERT! | #WERT! | here | | | |
| 2.C.7.a | NA | NA | #WERT! | #WERT! | here | | | |
| 2.C.7.b | NE | NE | #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 | 92,15 | 92,15 | 0,00 | 0,00% | here | | | |
| 2.D.3.b | 1,90 | 1,90 | 0,00 | 0,00% | here | | | |
| 2.D.3.c | 0,07 | 0,07 | 0,00 | 0,00% | here | | | |
| 2.D.3.d | 540,00 | 540,00 | 0,00 | 0,00% | here | | | |
| 2.D.3.e | 114,00 | 114,00 | 0,00 | 0,00% | here | | | |
| 2.D.3.f | 1,41 | 1,41 | 0,00 | 0,00% | here | | | |
| 2.D.3.g | 70,00 | 69,59 | -0,41 | -0,58% | here | | | |
| 2.D.3.h | 139,36 | 139,36 | 0,00 | 0,00% | here | | | |
| 2.D.3.i | 241,57 | 242,18 | 0,61 | 0,25% | here | | | |
| 2.G | 1,62 | 1,62 | 0,00 | 0,00% | here | | | |
| 2.H.1 | NA | NA | #WERT! | #WERT! | here | | | |

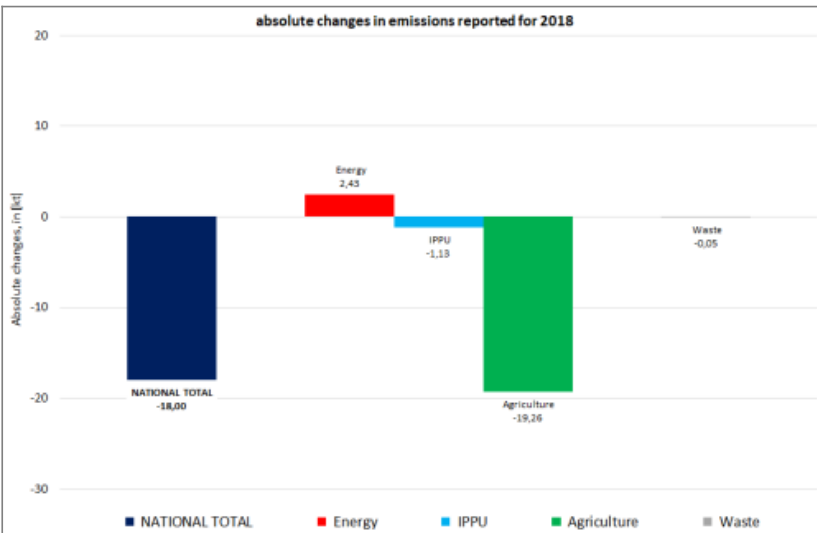
| absolute changes in emissions reported for 1990 | | | | | Submission 2021 | Submission 2022 | Difference | Reasoning |
|---|-----------------|-----------------|--------------|---------------|-----------------------|-----------------------------------|------------|-----------|
| | | | | | | | | |
| NFR Code | [kt] | | | | relative | see description and reasoning in: | | |
| NATIONAL TOTAL | 3.890,85 | 3.891,58 | 0,73 | 0,02% | sub-category chapters | | | |
| NFR 1 - Energy | 2.170,57 | 2.162,57 | -8,00 | -0,37% | sub-category chapters | | | |
| 2.H.2 | 15,20 | 15,20 | 0,00 | 0,00% | here | | | |
| 2.H.3 | NA | NA | #WERT! | #WERT! | here | | | |
| 2.I | 4,98 | 4,98 | 0,00 | 0,00% | 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 | 398,49 | 398,93 | 0,44 | 0,11% | sub-category chapters | | | |
| 3.B.1.a | 196,61 | 196,61 | 0,00 | 0,00% | here | | | |
| 3.B.1.b | 153,72 | 154,16 | 0,44 | 0,29% | here | | | |
| 3.B.2 | 0,43 | 0,43 | 0,00 | 0,00% | here | | | |
| 3.B.3 | 18,41 | 18,41 | 0,00 | 0,00% | here | | | |
| 3.B.4.a | NO | NO | #WERT! | #WERT! | here | | | |
| 3.B.4.d | 0,05 | 0,05 | 0,00 | 0,00% | here | | | |
| 3.B.4.e | 3,25 | 3,25 | 0,00 | 0,00% | here | | | |
| 3.B.4.f | IE | IE | #WERT! | #WERT! | here | | | |
| 3.B.4.g i | 8,82 | 8,82 | 0,00 | 0,00% | here | | | |
| 3.B.4.g ii | 3,82 | 3,82 | 0,00 | 0,00% | here | | | |
| 3.B.4.g iii | 2,46 | 2,46 | 0,00 | 0,00% | here | | | |
| 3.B.4.g iv | 3,23 | 3,23 | 0,00 | 0,00% | here | | | |
| 3.B.4.h | NE | NE | #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 | 7,692 | 7,692 | 0,00 | 0,00% | here | | | |
| 3.D.f | NA | NA | #WERT! | #WERT! | here | | | |
| 3.F | NO | NO | #WERT! | #WERT! | here | | | |
| 3.I | NA | NA | #WERT! | #WERT! | here | | | |
| NFR 5 - Waste | 38,45 | 38,45 | 0,00 | 0,00% | | | | |
| NFR 6 - Other | NA | | | | | | | |

Changes within the **National Total reported for 2018 (-15.31 kt | -1.34 %)** are dominated by decreased emission estimates **NFR 3**.

In **NFR 5**, emissions have been re-allocated with no impact on the sector's total emissions. The strongest relative change occurs for **NFR 2.G with minus 50 %**.

Table 2: Changes in emission estimates for 2018

| NFR Code | [kt] | | | | relative | Reasoning |
|----------------------------|-----------------|-----------------|---------------|---------------|---|-----------|
| | Submission 2020 | Submission 2021 | Difference | | | |
| NATIONAL TOTAL | 1.140,32 | 1.125,02 | -15,31 | -1,34% | see description and reasoning in: sub-category chapters | |
| NFR 1 - Energy | 210,09 | 214,58 | 4,49 | 2,14% | sub-category chapters | |
| 1.A.1.a | 7,95 | 8,06 | 0,11 | 1,37% | here | |
| 1.A.1.b | 0,75 | 0,90 | 0,15 | 19,64% | here | |
| 1.A.1.c | 0,32 | 0,39 | 0,07 | 22,37% | here | |
| 1.A.2.a | 0,255 | 0,259 | 0,004 | 1,50% | here | |
| 1.A.2.b | 0,08 | 0,08 | 0,00 | 2,51% | here | |
| 1.A.2.e | 0,02 | 0,02 | 0,002 | 8,50% | here | |
| 1.A.2.g vii | 3,63 | 3,62 | -0,01 | -0,26% | here | |
| 1.A.2.g viii | 6,04 | 5,65 | -0,38 | -6,37% | here | |
| 1.A.3.a i(i) | 0,79 | 0,72 | -0,06 | -8,24% | here | |
| 1.A.3.a ii(i) | 0,56 | 0,49 | -0,07 | -12,86% | here | |
| 1.A.3.b i | 46,43 | 47,87 | 1,43 | 3,09% | here | |
| 1.A.3.b ii | 1,57 | 1,49 | -0,09 | -5,41% | here | |
| 1.A.3.b iii | 3,04 | 2,96 | -0,08 | -2,56% | here | |
| 1.A.3.b iv | 14,75 | 15,20 | 0,45 | 3,07% | here | |
| 1.A.3.b v | 19,73 | 20,26 | 0,53 | 2,67% | here | |
| 1.A.3.c | 0,42 | 0,36 | -0,06 | -15,42% | here | |
| 1.A.3.d ii | 1,08 | 1,19 | 0,11 | 10,50% | here | |
| 1.A.3.e i | 0,01 | 0,01 | 0,00 | 0,45% | here | |
| 1.A.4.a i | 3,82 | 3,42 | -0,40 | -10,52% | here | |
| 1.A.4.a ii | 1,14 | 0,90 | -0,24 | -21,08% | here | |
| 1.A.4.b i | 32,07 | 34,96 | 2,89 | 9,01% | here | |
| 1.A.4.b ii | 10,76 | 10,97 | 0,21 | 1,92% | here | |
| 1.A.4.c i | 0,79 | 0,78 | -0,01 | -1,47% | here | |
| 1.A.4.c ii | 9,39 | 9,45 | 0,07 | 0,69% | here | |
| 1.A.4.c iii | 0,130 | 0,134 | 0,004 | 2,70% | here | |
| 1.A.5.a | 0,06 | 0,06 | 0,00 | 1,28% | here | |
| 1.A.5.b | 1,11 | 1,11 | 0,00 | 0,01% | here | |
| 1.B.1.a | 0,002 | 0,006 | 0,004 | 260% | here | |
| 1.B.2.a iv | 12,27 | 12,27 | 0,00 | -0,01% | | |
| 1.B.2.a v | 16,71 | 16,60 | -0,11 | -0,66% | | |
| 1.B.2.b | 4,91 | 4,89 | -0,02 | -0,36% | | |
| NFR 2 - IPPU | 586,01 | 584,84 | -1,17 | -0,20% | sub-category chapters | |
| 2.G | 2,25 | 1,12 | -1,13 | -50,27% | here | |
| 2.H.1 | 3,66 | 3,66 | 0,00 | 0,00% | here | |
| 2.H.2 | 15,78 | 15,74 | -0,04 | -0,22% | here | |
| NFR 3 - Agriculture | 324,31 | 305,68 | -18,63 | -5,74% | sub-category chapters | |
| 3.B.1.a | 169,97 | 160,81 | -9,16 | -5,39% | here | |
| 3.B.1.b | 101,42 | 91,95 | -9,47 | -9,34% | here | |



| absolute changes in emissions reported for 2018 | | | | | Submission 2020 | Submission 2021 | Difference | Reasoning |
|---|-----------------|-----------------|---------------|---------------|------------------------------|-----------------|-----------------|--|
| | | | | | | | | |
| NFR Code | | | | | [kt] | | relative | see description and reasoning in: |
| NATIONAL TOTAL | 1,140,32 | 1,125,02 | -15,31 | -1,34% | sub-category chapters | | | |
| NFR 1 - Energy | 210,09 | 214,58 | 4,49 | 2,14% | sub-category chapters | | | |
| NFR 5 - Waste | 19,91 | 19,91 | 0,00 | 0,00% | sub-category chapters | | | |
| 5.A | 3,99 | 3,98 | -0,01 | 0,30% | here | | | |
| 5.D.2 | NA | 0,01 | 0,01 | | here | | | |
| NFR 6 - Other | | | | | NA | | | |