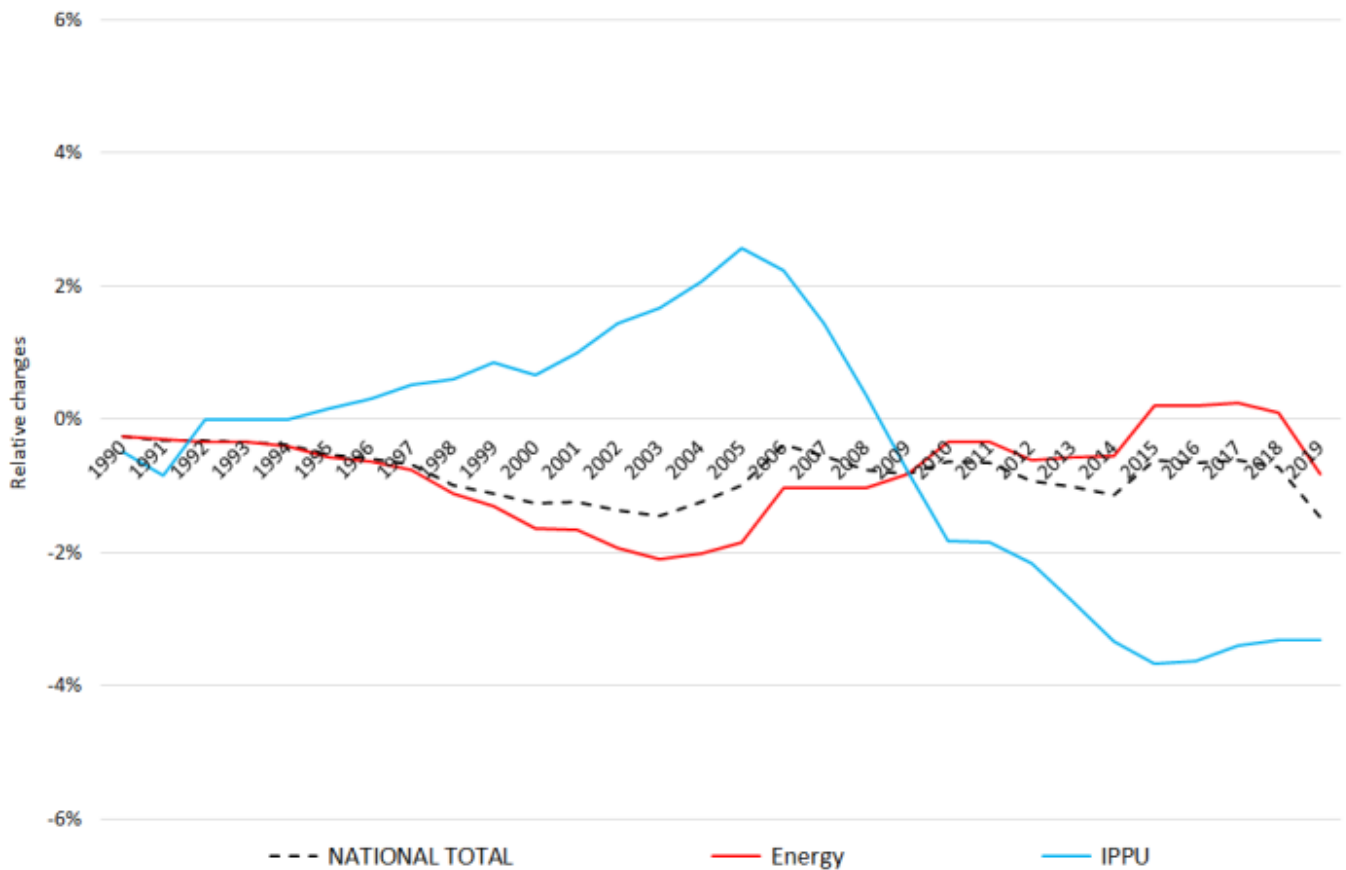
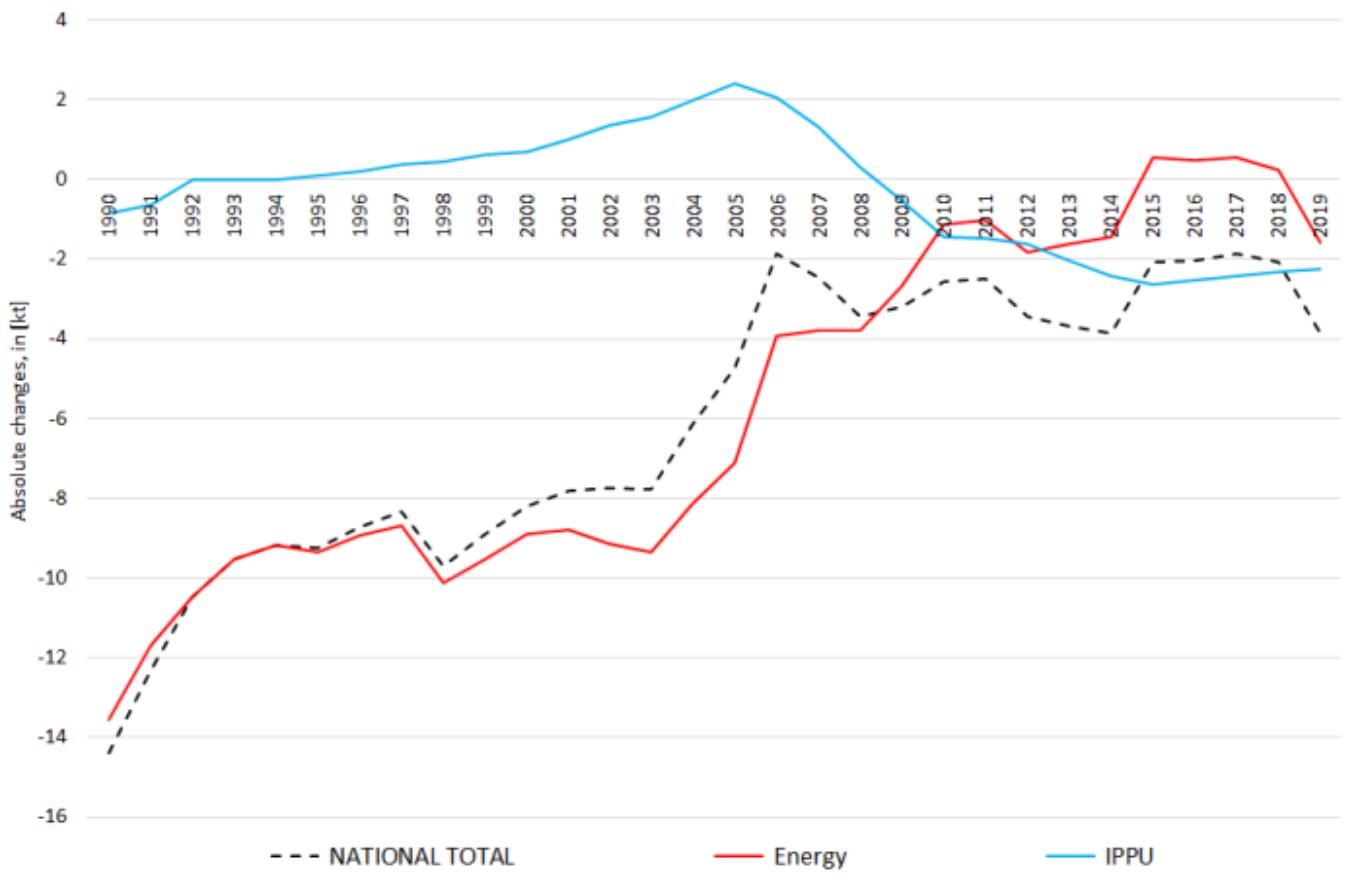


# Recalculations - Sulphur Oxides

Revision of NO<sub>x</sub> emissions over time:



The changes in the **National Total** reported for **1990 (-14.4 kt or -0.26 %)** result almost entirely from revised emission estimates in NFRs **1.A.3.d ii** (-13.80 kt), **2.B.6** (+1.73 kt) and **2.B.10.a** (-2.58 kt) together with less significant changes throughout NFRs 1 and 2.

Here, the strongest percental change occurs for **1.A.3.d ii with minus 56 %**.

Table 1: Changes in emission estimates for 1990

| NFR Sector                 | Submission 2021 | Submission 2022 | Difference    |               | Reasoning  |
|----------------------------|-----------------|-----------------|---------------|---------------|--|
|                            | [kt]            |                 |               | relative      |  |
| <b>NATIONAL TOTAL</b>      | <b>5.474,42</b> | <b>5.460,02</b> | <b>-14,40</b> | <b>-0,26%</b> | see description and reasoning in:<br>sub-category chapters |
| <b>NFR 1 - Energy</b>      | <b>5.297,93</b> | <b>5.284,38</b> | <b>-13,55</b> | <b>-0,26%</b> | sub-category chapters                                      |
| 1.A.3.a ii(i)              | 0,18            | 0,18            | 0,00          | -0,03%        | <a href="#">here</a>                                       |
| 1.A.3.c                    | 7,73            | 8,24            | 0,51          | 6,56%         | <a href="#">here</a>                                       |
| 1.A.3.d ii                 | 24,67           | 10,87           | -13,80        | -55,94%       | <a href="#">here</a>                                       |
| 1.A.4.c iii                | 0,36            | 0,19            | -0,18         | -48,74%       | <a href="#">here</a>                                       |
| 1.A.5.b                    | 3,55            | 3,47            | -0,08         | -2,27%        | <a href="#">here</a>                                       |
| <b>NFR 2 - IPPU</b>        | <b>176,39</b>   | <b>175,54</b>   | <b>-0,85</b>  | <b>-0,48%</b> | sub-category chapters                                      |
| 2.B.6                      | C               | 1,73            | 1,73          |               | <a href="#">here</a>                                       |
| 2.B.10.a                   | 56,50           | 53,93           | -2,58         | -4,56%        | <a href="#">here</a>                                       |
| <b>NFR 3 - Agriculture</b> | <b>NA</b>       |                 |               |               |  |
| <b>NFR 5 - Waste</b>       | <b>0,11</b>     | <b>0,11</b>     | <b>0,00</b>   | <b>0,00%</b>  |  |
| <b>NFR 6 - Other</b>       | <b>NA</b>       |                 |               |               |  |

Changes in the **National Total** reported for **2019 (-3.84 kt or -1.46 %)** result mainly from revisions in **NFR sub-categories 1.A.1.c, 1.A.2.g viii and 2.A.3** together with less relevant changes throughout NFRs 1, 2 and 5.

Table 2: Changes in emission estimates for 2019

| NFR Sector            | Submission 2021 | Submission 2022 | Difference   |               | Reasoning  |
|-----------------------|-----------------|-----------------|--------------|---------------|--|
|                       | [kt]            |                 |              | relative      |  |
| <b>NATIONAL TOTAL</b> | <b>263,53</b>   | <b>259,70</b>   | <b>-3,84</b> | <b>-1,46%</b> | see description and reasoning in:<br>sub-category chapters |
| <b>NFR 1 - Energy</b> | <b>195,50</b>   | <b>193,90</b>   | <b>-1,59</b> | <b>-0,81%</b> | sub-category chapters                                      |
| 1.A.1.a               | 99,43           | 99,78           | 0,35         | 0,36%         | <a href="#">here</a>                                       |
| 1.A.1.b               | 32,80           | 32,91           | 0,11         | 0,34%         | <a href="#">here</a>                                       |
| 1.A.1.c               | 8,86            | 7,73            | -1,13        | -12,72%       | <a href="#">here</a>                                       |
| 1.A.2.a               | 4,73            | 4,87            | 0,14         | 2,96%         | <a href="#">here</a>                                       |
| 1.A.2.b               | 0,382           | 0,378           | -0,004       | -1,05%        | <a href="#">here</a>                                       |
| 1.A.2.e               | 0,79            | 0,77            | -0,01        | -1,64%        | <a href="#">here</a>                                       |
| 1.A.2.g vii           | 0,01824         | 0,01825         | 0,00001      | 0,05%         | <a href="#">here</a>                                       |
| 1.A.2.g viii          | 27,27           | 25,67           | -1,59        | -5,84%        | <a href="#">here</a>                                       |
| 1.A.3.a i(i)          | 0,65            | 0,65            | 0,01         | 1,10%         | <a href="#">here</a>                                       |
| 1.A.3.a ii(i)         | 0,165           | 0,166           | 0,001        | 0,64%         | <a href="#">here</a>                                       |
| 1.A.3.b i             | 0,517           | 0,516           | -0,001       | -0,13%        | <a href="#">here</a>                                       |
| 1.A.3.b ii            | 0,062           | 0,061           | -0,001       | -1,06%        | <a href="#">here</a>                                       |
| 1.A.3.b iii           | 0,2419          | 0,2416          | -0,0003      | -0,13%        | <a href="#">here</a>                                       |
| 1.A.3.b iv            | 0,0070          | 0,0069          | -0,0001      | -1,10%        | <a href="#">here</a>                                       |
| 1.A.3.c               | 0,225           | 0,239           | 0,014        | 6,45%         | <a href="#">here</a>                                       |
| 1.A.3.d ii            | 0,61            | 0,38            | -0,23        | -37,88%       | <a href="#">here</a>                                       |
| 1.A.4.a i             | 0,90            | 1,24            | 0,34         | 37,36%        | <a href="#">here</a>                                       |
| 1.A.4.a ii            | 0,003990        | 0,003994        | 0,000004     | 0,10%         | <a href="#">here</a>                                       |
| 1.A.4.b i             | 9,47            | 10,41           | 0,93         | 9,84%         | <a href="#">here</a>                                       |
| 1.A.4.b ii            | 0,00155         | 0,00162         | 0,00007      | 4,50%         | <a href="#">here</a>                                       |
| 1.A.4.c i             | 2,32            | 1,82            | -0,50        | -21,61%       | <a href="#">here</a>                                       |
| 1.A.4.c ii            | 0,02161         | 0,02164         | 0,00003      | 0,12%         | <a href="#">here</a>                                       |
| 1.A.4.c iii           | 0,02            | 0,01            | -0,01        | -45,52%       | <a href="#">here</a>                                       |
| 1.A.5.a               | 0,011           | 0,012           | 0,001        | 7,94%         | <a href="#">here</a>                                       |
| 1.A.5.b               | 0,04            | 0,02            | -0,02        | -39,13%       | <a href="#">here</a>                                       |

|                            | Submission 2021 | Submission 2022 | Difference   |                 | Reasoning                                |
|----------------------------|-----------------|-----------------|--------------|-----------------|--|
| <b>NFR Sector</b>          | <b>[kt]</b>     |                 |              | <b>relative</b> | <b>see description and reasoning in:</b> |
| <b>NATIONAL TOTAL</b>      | <b>263,53</b>   | <b>259,70</b>   | <b>-3,84</b> | <b>-1,46%</b>   | <b>sub-category chapters</b>             |
| <b>NFR 1 - Energy</b>      | <b>195,50</b>   | <b>193,90</b>   | <b>-1,59</b> | <b>-0,81%</b>   | <b>sub-category chapters</b>             |
| 1.B.1.b                    | 0,800           | 0,804           | 0,004        | 0,48%           | <a href="#">here</a>                     |
| 1.B.2.a iv                 | 4,2097          | 4,2104          | 0,0006       | 0,01%           |  |
| 1.B.2.c                    | 0,9525          | 0,9526          | 0,0001       | 0,01%           |  |
| <b>NFR 2 - IPPU</b>        | <b>67,90</b>    | <b>65,66</b>    | <b>-2,24</b> | <b>-3,30%</b>   | <b>sub-category chapters</b>             |
| 2.A.3                      | 9,88            | 7,64            | -2,24        | -22,70%         | <a href="#">here</a>                     |
| 2.A.6                      | 1,2034          | 1,2039          | 0,0005       | 0,04%           | <a href="#">here</a>                     |
| 2.B.6                      | C               | 0,95            | 0,95         |                 | <a href="#">here</a>                     |
| 2.B.10.a                   | 10,91           | 9,96            | -0,95        | -8,75%          | <a href="#">here</a>                     |
| 2.H.1                      | 0,620           | 0,619           | -0,002       | -0,27%          | <a href="#">here</a>                     |
| <b>NFR 3 - Agriculture</b> | <b>NA</b>       |                 |              |                 |  |
| <b>NFR 5 - Waste</b>       | <b>0,137</b>    | <b>0,138</b>    | <b>0,001</b> | <b>0,66%</b>    | <b>sub-category chapters</b>             |
| 5.C.2                      | 0,063           | 0,064           | 0,001        | 1,44%           | <a href="#">here</a>                     |
| <b>NFR 6 - Other</b>       | <b>NA</b>       |                 |              |                 |  |