

# Recalculations - Sulphur Oxides

The marginal changes in the **National Total reported for 1990 (-14.4 kt | -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 Code	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>	<b>see description and reasoning in: sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>5.297,93</b>	<b>5.284,38</b>	<b>-13,55</b>	<b>-0,26%</b>	<b>sub-category chapters</b>
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>	<b>sub-category chapters</b>
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 (+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

NFR Code	Submission 2020	Submission 2021	Difference		Reasoning
	[kt]			relative	
<b>NATIONAL TOTAL</b>	<b>288,97</b>	<b>291,78</b>	<b>2,81</b>	<b>0,97%</b>	<b>see description and reasoning in: sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>219,59</b>	<b>222,08</b>	<b>2,49</b>	<b>1,13%</b>	<b>sub-category chapters</b>
1.A.1.a	120,87	123,03	2,16	1,78%	<a href="#">here</a>
1.A.1.b	31,02	32,70	1,68	5,42%	<a href="#">here</a>
1.A.1.c	7,98	9,54	1,56	19,61%	<a href="#">here</a>
1.A.2.a	5,08	5,01	-0,07	-1,33%	<a href="#">here</a>
1.A.2.b	0,40	0,39	-0,01	-3,38%	<a href="#">here</a>
1.A.2.e	0,74	0,80	0,05	7,03%	<a href="#">here</a>
1.A.2.g vii	0,017	0,018	0,001	7,64%	<a href="#">here</a>
1.A.2.g viii	29,41	26,44	-2,97	-10,11%	<a href="#">here</a>
1.A.3.a i(i)	0,67	0,65	-0,02	-2,40%	<a href="#">here</a>
1.A.3.a ii(i)	0,15	0,16	0,01	9,19%	<a href="#">here</a>
1.A.3.b i	0,506	0,515	0,01	1,75%	<a href="#">here</a>
1.A.3.b ii	0,059	0,060	0,001	0,97%	<a href="#">here</a>
1.A.3.b iii	0,25	0,24	-0,01	-3,36%	<a href="#">here</a>
1.A.3.b iv	0,0070	0,0069	-0,0001	-1,19%	<a href="#">here</a>
1.A.3.c	0,2251	0,2246	-0,0005	-0,23%	<a href="#">here</a>
1.A.3.d ii	0,6685	0,6782	0,01	1,45%	<a href="#">here</a>
1.A.3.e i	0,00332	0,00334	0,00002	0,45%	<a href="#">here</a>
1.A.4.a i	1,06	1,01	-0,05	-5,06%	<a href="#">here</a>
1.A.4.a ii	0,005	0,004	0,001	-18,48%	<a href="#">here</a>
1.A.4.b i	11,92	12,12	0,20	1,64%	<a href="#">here</a>
1.A.4.c i	2,38	2,32	-0,06	-2,56%	<a href="#">here</a>
1.A.4.c ii	0,0220	0,0213	-0,0006	-2,90%	<a href="#">here</a>

NFR Code	Submission 2020	Submission 2021	Difference		Reasoning
	[kt]		absolute	relative	see description and reasoning in:
<b>NATIONAL TOTAL</b>	<b>288,97</b>	<b>291,78</b>	<b>2,81</b>	<b>0,97%</b>	<b>sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>219,59</b>	<b>222,08</b>	<b>2,49</b>	<b>1,13%</b>	<b>sub-category chapters</b>
1.A.4.c iii	0,1068	0,1097	0,0029	2,70%	<a href="#">here</a>
1.A.5.a	0,02647	0,02651	0,00004	0,16%	<a href="#">here</a>
1.A.5.b	0,0229	0,0230	0,0001	0,32%	<a href="#">here</a>
1.B.1.b	0,811	0,806	-0,005	-0,62%	<a href="#">here</a>
<b>NFR 2 - IPPU</b>	<b>69,24</b>	<b>69,57</b>	<b>0,32</b>	<b>0,47%</b>	<b>sub-category chapters</b>
2.A.3	10,24	10,22	-0,02	-0,19%	<a href="#">here</a>
2.C.7.a	2,01	2,37	0,36	17,72%	<a href="#">here</a>
2.G	0,14	0,13	-0,01	-9,46%	<a href="#">here</a>
<b>NFR 3 - Agriculture</b>	<b>NA</b>				
<b>NFR 5 - Waste</b>	<b>0,14</b>	<b>0,14</b>	<b>0,00</b>	<b>0,00%</b>	
<b>NFR 6 - Other</b>	<b>NA</b>				