

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

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

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