

# Recalculations - Carbon monoxide (CO)

## Revision of carbon monoxide emissions over time:

The significant changes in the **National Total reported for 1990 (-545 kt | -4 %)** are dominated by increased emission estimates from **NFRs 1.A.3.a ii(i), 1.A.3.b i and ii**. Additional smaller changes occur throughout NFR 1.

The most significant relative change occurs for **NFR 1.A.3.a ii(i) with minus 83 %**.

Table 1: Changes in emission estimates for 1990

NFR Sector	Submission 2020	Submission 2021	Difference		Reasoning see description and reasoning in:
	[kt]		absolute	relative	
<b>NATIONAL TOTAL</b>	<b>13.716,30</b>	<b>13.171,06</b>	<b>-545,24</b>	<b>-3,98%</b>	<b>sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>12.452,62</b>	<b>11.934,21</b>	<b>-518,41</b>	<b>-4,16%</b>	<b>sub-category chapters</b>
1.A.2.g vii	82,27	82,70	0,43	0,52%	<a href="#">here</a>
1.A.3.a i(i)	3,08	3,81	0,73	23,74%	<a href="#">here</a>
1.A.3.a ii(i)	52,32	8,47	-43,85	-83,81%	<a href="#">here</a>
1.A.3.b i	7.065,11	6.646,96	-418,15	-5,92%	<a href="#">here</a>
1.A.3.b ii	356,13	315,30	-40,83	-11,46%	<a href="#">here</a>
1.A.3.b iii	130,05	135,43	5,38	4,14%	<a href="#">here</a>
1.A.3.b iv	241,56	226,62	-14,94	-6,18%	<a href="#">here</a>
1.A.4.a ii	6,98	7,04	0,06	0,89%	<a href="#">here</a>
1.A.4.b ii	64,43	56,25	-8,18	-12,70%	<a href="#">here</a>
1.A.4.c ii	99,90	100,83	0,93	0,93%	<a href="#">here</a>
<b>NFR 2 - IPPU</b>	<b>1.238,64</b>	<b>1.211,81</b>	<b>-26,83</b>	<b>-2,17%</b>	<b>sub-category chapters</b>
2.G	46,05	19,23	-26,83	-58,25%	<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>				

Changes in the **National Total reported for 2018 (+20 kt | +0.68 %)** result from several revised estimates within **NFR 1 (+33 kt | +3.6 %)** together with a revision in **NFR 2.G (-13.3 kt or minus 50 %)**.

Table 2: Changes in emission estimates for 2018

NFR Sector	Submission 2020	Submission 2021	Difference		Reasoning see description and reasoning in:
	[kt]		absolute	relative	
<b>NATIONAL TOTAL</b>	<b>2.937,91</b>	<b>2.957,80</b>	<b>19,89</b>	<b>0,68%</b>	<b>sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>2.082,15</b>	<b>2.115,39</b>	<b>33,24</b>	<b>1,60%</b>	<b>sub-category chapters</b>
1.A.1.a	103,95	104,81	0,86	0,82%	<a href="#">here</a>
1.A.1.b	1,79	2,11	0,32	18,07%	<a href="#">here</a>
1.A.1.c	11,89	12,11	0,23	1,90%	<a href="#">here</a>
1.A.2.a	32,89	32,99	0,10	0,30%	<a href="#">here</a>
1.A.2.b	0,147	0,151	0,004	2,58%	<a href="#">here</a>
1.A.2.e	0,079	0,082	0,003	4,38%	<a href="#">here</a>
1.A.2.f	155,98	142,33	-13,65	-8,75%	<a href="#">here</a>
1.A.2.g vii	137,74	133,04	-4,70	-3,41%	<a href="#">here</a>
1.A.2.g viii	18,77	18,09	-0,68	-3,60%	<a href="#">here</a>
1.A.3.a i(i)	6,34	6,80	0,46	7,28%	<a href="#">here</a>
1.A.3.a ii(i)	10,14	6,50	-3,64	-35,91%	<a href="#">here</a>
1.A.3.b i	779,41	803,54	24,13	3,10%	<a href="#">here</a>
1.A.3.b ii	42,20	37,26	-4,94	-11,70%	<a href="#">here</a>
1.A.3.b iii	45,67	44,45	-1,22	-2,68%	<a href="#">here</a>
1.A.3.b iv	71,98	73,28	1,31	1,82%	<a href="#">here</a>
1.A.3.c	1,21	1,05	-0,16	-12,86%	<a href="#">here</a>
1.A.3.d ii	3,47	4,01	0,54	15,63%	<a href="#">here</a>

	Submission 2020	Submission 2021	Difference		Reasoning
<b>NFR Sector</b>	<b>[kt]</b>			<b>relative</b>	<b>see description and reasoning in:</b>
<b>NATIONAL TOTAL</b>	<b>2.937,91</b>	<b>2.957,80</b>	<b>19,89</b>	<b>0,68%</b>	<b>sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>2.082,15</b>	<b>2.115,39</b>	<b>33,24</b>	<b>1,60%</b>	<b>sub-category chapters</b>
1.A.3.e i	0,26	0,26	0,01	2,11%	<a href="#">1.A.3.e i - Pipeline Transport ]</a>
1.A.4.a i	49,23	44,17	-5,06	-10,28%	<a href="#">here</a>
1.A.4.a ii	2,89	2,41	-0,48	-16,55%	<a href="#">here</a>
1.A.4.b i	411,76	447,92	36,16	8,78%	<a href="#">here</a>
1.A.4.b ii	112,03	114,19	2,16	1,93%	<a href="#">here</a>
1.A.4.c i	13,93	13,84	-0,09	-0,67%	<a href="#">here</a>
1.A.4.c ii	51,58	53,14	1,56	3,02%	<a href="#">here</a>
1.A.4.c iii	0,22051	0,22647	0,01	2,70%	<a href="#">here</a>
1.A.5.a	0,98	1,00	0,02	1,53%	<a href="#">here</a>
<b>NFR 2 - IPPU</b>	<b>836,206</b>	<b>822,861</b>	<b>-13,35</b>	<b>-1,60%</b>	<b>sub-category chapters</b>
2.G	26,81	13,47	-13,34	-49,76%	<a href="#">here</a>
<b>NFR 3 - Agriculture</b>	<b>NA</b>				
<b>NFR 5 - Waste</b>	<b>19,55</b>	<b>19,55</b>	<b>0,00</b>	<b>0,00%</b>	
<b>NFR 6 - Other</b>	<b>NA</b>				