

# Recalculations - Carbon Monoxide

## 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
	[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>see description and reasoning in: 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>				

The strong changes in the **National Total reported for 2017 (+236 kt | +8.34 %)** are by far dominated by revised estimates for **NFR 1.A.3.b i ( + 303 kt)** accompanied by some more or less significant revisions throughout NFRs 1 and 2.

Here, the strongest relative changes occur for **NFRs 1.B.2.a iv with +580 % and 1.A.3.b ii with +191 %**.

Table 2: Changes in emission estimates for 2018

NFR Sector	Submission 2020	Submission 2021	Difference		Reasoning
	[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>see description and reasoning in: 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>

	Submission 2020	Submission 2021	Difference		Reasoning
NFR Sector	[kt]		relative	see description and reasoning in:	
<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.b v	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
1.A.3.b vi	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
1.A.3.b vii	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
1.A.3.c	1,21	1,05	-0,16	-12,86%	<a href="#">here</a>
1.A.3.d i(ii)	IE	IE	#WERT!	#WERT!	
1.A.3.d ii	3,47	4,01	0,54	15,63%	<a href="#">here</a>
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.3.e ii	NA	NA	#WERT!	#WERT!	<a href="#">1.A.3.e ii - Other Transport: Other ]</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>
1.A.5.b	10,47	10,47	0,00	0,00%	<a href="#">here</a>
1.B.1.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
1.B.1.b	4,57	4,57	0,00	0,00%	<a href="#">here</a>
1.B.1.c	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
1.B.2.a i	NA	NA	#WERT!	#WERT!	
1.B.2.a iv	0,36	0,36	0,00	0,00%	
1.B.2.a v	NA	NA	#WERT!	#WERT!	
1.B.2.b	0,11	0,11	0,00	0,00%	
1.B.2.c	0,12	0,12	0,00	0,00%	
1.B.2.d	NA	NA	#WERT!	#WERT!	
<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.A.1	IE	IE	#WERT!	#WERT!	<a href="#">here</a>
2.A.2	IE	IE	#WERT!	#WERT!	<a href="#">here</a>
2.A.3	IE	IE	#WERT!	#WERT!	<a href="#">here</a>
2.A.5.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.A.5.b	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.A.5.c	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.A.6	IE	IE	#WERT!	#WERT!	<a href="#">here</a>
2.B.1	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.B.2	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.B.3	0,08	0,08	0,00	0,00%	<a href="#">here</a>
2.B.5	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.B.6	NE	NE	#WERT!	#WERT!	<a href="#">here</a>
2.B.7	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.B.10.a	0,82	0,82	0,00	0,00%	<a href="#">here</a>
2.B.10.b	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.C.1	713,31	713,30	0,00	0,00%	<a href="#">here</a>
2.C.2	NE	NE	#WERT!	#WERT!	<a href="#">here</a>
2.C.3	95,20	95,20	0,00	0,00%	<a href="#">here</a>
2.C.4	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.C.5	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.C.6	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.C.7.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.C.7.b	NO	NO	#WERT!	#WERT!	<a href="#">here</a>
2.C.7.c	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.C.7.d	NA	NA	#WERT!	#WERT!	<a href="#">here</a>

	Submission 2020	Submission 2021	Difference		Reasoning
NFR Sector	[kt]		relative	see description and reasoning in:	
<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>
2.D.3.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.b	IE	IE	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.c	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.d	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.e	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.f	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.g	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.h	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.D.3.i	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.G	26,81	13,47	-13,34	-49,76%	<a href="#">here</a>
2.H.1	NE	NE	#WERT!	#WERT!	<a href="#">here</a>
2.H.2	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.H.3	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.I	IE	IE	#WERT!	#WERT!	<a href="#">here</a>
2.J	NE	NE	#WERT!	#WERT!	<a href="#">here</a>
2.K	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
2.L	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
<b>NFR 3 - Agriculture</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>#DIV/0!</b>	<b>sub-category chapters</b>
3.B.1.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.1.b	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.2	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.3	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.d	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.e	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.f	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.g i	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.g ii	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.g iii	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.g iv	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.B.4.h	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.a.1	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.a.2.a	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.a.2.b	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.a.2.c	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.a.3	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.a.4	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.b	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.c	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.d	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.e	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.D.f	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
3.F	NO	NO	#WERT!	#WERT!	
3.I	NA	NA	#WERT!	#WERT!	<a href="#">here</a>
<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>				<b>[[[</b>