

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

	Submission 2023	Submission 2024	Difference		Reasoning
NFR Sector	[kt]		absolute	relative	see description and reasoning in:
NATIONAL TOTAL	13.319,09	13.320,20	1,11	0,01%	sub-category chapters
NFR 1 - Energy	12.045,28	12.050,36	5,08	0,04%	sub-category chapters
1.A.1.a	176,32	176,32	0,00	0,00%	here
1.A.1.b	9,02	9,02	0,00	0,00%	here
1.A.1.c	51,06	51,06	0,00	0,00%	here
1.A.2.a	70,91	70,91	0,00	0,00%	here
1.A.2.b	2,84	2,84	0,00	0,00%	here
1.A.2.c	IE	IE	#WERT!	#WERT!	here
1.A.2.d	IE	IE	#WERT!	#WERT!	here
1.A.2.e	1,06	1,06	0,00	0,00%	here
1.A.2.f	9,15	9,15	0,00	0,00%	here
1.A.2.g vii	82,82	74,39	-8,43	-10,18%	here
1.A.2.g viii	65,70	65,70	0,00	0,00%	here
1.A.3.a i(i)	3,42	3,23	-0,19	-5,63%	here
1.A.3.a ii(i)	6,18				here
1.A.3.b i	6.915,01	6.915,01	0,00	0,00%	here
1.A.3.b ii	328,37				here
1.A.3.b iii	128,59	128,59	0,00	0,00%	here
1.A.3.b iv	225,59	225,59	0,00	0,00%	here
1.A.3.b v	NA	NA	#WERT!	#WERT!	here
1.A.3.b vi	NA	NA	#WERT!	#WERT!	here
1.A.3.b vii	NA	NA	#WERT!	#WERT!	here
1.A.3.c	12,54	12,58	0,04	0,34%	here
1.A.3.d i(ii)	IE	IE	#WERT!	#WERT!	
1.A.3.d ii	13,32	21,53	8,22	61,70%	here
1.A.3.e i	2,04	2,04	0,00	0,00%	1.A.3.e i - Pipeline Transport]
1.A.3.e ii	NA	NA	#WERT!	#WERT!	1.A.3.e ii - Other Transport: Other]
1.A.4.a i	1.338,59	1.338,59	0,00	0,00%	here
1.A.4.a ii	7,03	6,17	-0,85	-12,13%	here
1.A.4.b i	1.924,89	1.924,89	0,00	0,00%	here
1.A.4.b ii	54,02	54,02	0,00	0,00%	here
1.A.4.c i	148,84	148,84	0,00	0,00%	here
1.A.4.c ii	100,78	110,83	10,05	9,97%	here
1.A.4.c iii	0,04	0,04	0,00	0,00%	here
1.A.5.a	216,11	216,11	0,00	0,00%	here
1.A.5.b	116,99	116,99	0,00	0,00%	here
1.B.1.a	NA	NA	#WERT!	#WERT!	here
1.B.1.b	4,12	0,29	-3,83	-93,07%	here
1.B.1.c	NA	NA	#WERT!	#WERT!	here
1.B.2.a i	NA	NA	#WERT!	#WERT!	
1.B.2.a iv	0,45	0,45	0,00	0,00%	
1.B.2.a v	NA	NA	#WERT!	#WERT!	
1.B.2.b	27,43	27,43	0,00	0,00%	
1.B.2.c	2,07	2,07	0,00	0,00%	

	Submission 2023	Submission 2024	Difference		Reasoning
NFR Sector	[kt]			relative	see description and reasoning in:
NATIONAL TOTAL	13.319,09	13.320,20	1,11	0,01%	sub-category chapters
NFR 1 - Energy	12.045,28	12.050,36	5,08	0,04%	sub-category chapters
1.B.2.d	NA	NA	#WERT!	#WERT!	
NFR 2 - IPPU	1.248,77	1.248,77	0,00	0,00%	sub-category chapters
2.A.1	IE	IE	#WERT!	#WERT!	here
2.A.2	15,38	15,38	0,00	0,00%	here
2.A.3	1,72	1,72	0,00	0,00%	here
2.A.5.a	NA	NA	#WERT!	#WERT!	here
2.A.5.b	NA	NA	#WERT!	#WERT!	here
2.A.5.c	NA	NA	#WERT!	#WERT!	here
2.A.6	IE	IE	#WERT!	#WERT!	here
2.B.1	0,27	0,27	0,00	0,00%	here
2.B.2	NA	NA	#WERT!	#WERT!	here
2.B.3	0,06	0,06	0,00	0,00%	here
2.B.5	NA	NA	#WERT!	#WERT!	here
2.B.6	19,48	19,48	0,00	0,00%	here
2.B.7	NA	NA	#WERT!	#WERT!	here
2.B.10.a	1,93	1,93	0,00	0,00%	here
2.B.10.b	NA	NA	#WERT!	#WERT!	here
2.C.1	1.079,56	1.079,56	0,00	0,00%	here
2.C.2	NE	NE	#WERT!	#WERT!	here
2.C.3	111,04	111,04	0,00	0,00%	here
2.C.4	NA	NA	#WERT!	#WERT!	here
2.C.5	NA	NA	#WERT!	#WERT!	here
2.C.6	NA	NA	#WERT!	#WERT!	here
2.C.7.a	NA	NA	#WERT!	#WERT!	here
2.C.7.b	NE	NE	#WERT!	#WERT!	here
2.C.7.c	NA	NA	#WERT!	#WERT!	here
2.C.7.d	NA	NA	#WERT!	#WERT!	here
2.D.3.a	NA	NA	#WERT!	#WERT!	here
2.D.3.b	IE	IE	#WERT!	#WERT!	here
2.D.3.c	NA	NA	#WERT!	#WERT!	here
2.D.3.d	NA	NA	#WERT!	#WERT!	here
2.D.3.e	NA	NA	#WERT!	#WERT!	here
2.D.3.f	NA	NA	#WERT!	#WERT!	here
2.D.3.g	NA	NA	#WERT!	#WERT!	here
2.D.3.h	NA	NA	#WERT!	#WERT!	here
2.D.3.i	NA	NA	#WERT!	#WERT!	here
2.G	19,23	19,23	0,00	0,00%	here
2.H.1	0,11	0,11	0,00	0,00%	here
2.H.2	NA	NA	#WERT!	#WERT!	here
2.H.3	NA	NA	#WERT!	#WERT!	here
2.I	IE	IE	#WERT!	#WERT!	here
2.J	NO	NO	#WERT!	#WERT!	here
2.K	NA	NA	#WERT!	#WERT!	here
2.L	NA	NA	#WERT!	#WERT!	here
NFR 3 - Agriculture	0,00	0,00	0,00	#DIV/0!	sub-category chapters
3.B.1.a	NA	NA	#WERT!	#WERT!	here
3.B.1.b	NA	NA	#WERT!	#WERT!	here
3.B.2	NA	NA	#WERT!	#WERT!	here
3.B.3	NA	NA	#WERT!	#WERT!	here
3.B.4.a	NO	NO	#WERT!	#WERT!	here
3.B.4.d	NA	NA	#WERT!	#WERT!	here
3.B.4.e	NA	NA	#WERT!	#WERT!	here

	Submission 2023	Submission 2024	Difference		Reasoning
NFR Sector	[kt]			relative	see description and reasoning in:
NATIONAL TOTAL	13.319,09	13.320,20	1,11	0,01%	sub-category chapters
NFR 1 - Energy	12.045,28	12.050,36	5,08	0,04%	sub-category chapters
3.B.4.f	NA	NA	#WERT!	#WERT!	here
3.B.4.g i	NA	NA	#WERT!	#WERT!	here
3.B.4.g ii	NA	NA	#WERT!	#WERT!	here
3.B.4.g iii	NA	NA	#WERT!	#WERT!	here
3.B.4.g iv	NA	NA	#WERT!	#WERT!	here
3.B.4.h	NA	NA	#WERT!	#WERT!	here
3.D.a.1	NA	NA	#WERT!	#WERT!	here
3.D.a.2.a	NA	NA	#WERT!	#WERT!	here
3.D.a.2.b	NA	NA	#WERT!	#WERT!	here
3.D.a.2.c	NA	NA	#WERT!	#WERT!	here
3.D.a.3	NA	NA	#WERT!	#WERT!	here
3.D.a.4	NA	NA	#WERT!	#WERT!	here
3.D.b	NA	NA	#WERT!	#WERT!	here
3.D.c	NA	NA	#WERT!	#WERT!	here
3.D.d	NA	NA	#WERT!	#WERT!	here
3.D.e	NA	NA	#WERT!	#WERT!	here
3.D.f	NA	NA	#WERT!	#WERT!	here
3.F	NO	NO	#WERT!	#WERT!	
3.I	NA	NA	#WERT!	#WERT!	here
NFR 5 - Waste	25,04	21,08	-3,97	-15,85%	sub-category chapters
5.A	NA	NA	#WERT!	#WERT!	here
5.B.1	NA	NA	#WERT!	#WERT!	here
5.B.2	NA	NA	#WERT!	#WERT!	here
5.C.1.a	NO	NO	#WERT!	#WERT!	
5.C.1.b i	NO	NO	#WERT!	#WERT!	
5.C.1.b ii	NO	NO	#WERT!	#WERT!	
5.C.1.b iii	NO	NO	#WERT!	#WERT!	
5.C.1.b iv	NO	NO	#WERT!	#WERT!	
5.C.1.b v	0,02	0,02	0,00	0,00%	here
5.C.1.b vi	NA	NA	#WERT!	#WERT!	
5.C.2	25,02	21,05	-3,97	-15,86%	here
5.D.1	NA	NA	#WERT!	#WERT!	here
5.D.2	NA	NA	#WERT!	#WERT!	here
5.D.3	NO	NO	#WERT!	#WERT!	
5.E	NE	NE	#WERT!	#WERT!	here
NFR 6 - Other	0,00	0,00	0,00	#DIV/0!	

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

	Submission 2022	Submission 2023	Difference		Reasoning
NFR Sector	[kt]			relative	see description and reasoning in:
NATIONAL TOTAL	2.452,06	2.450,53	-1,53	-0,06%	sub-category chapters
NFR 1 - Energy	1.705,99	1.704,20	-1,79	-0,11%	sub-category chapters
1.A.1.a	84,76	85,09	0,33	0,40%	here
1.A.1.b	1,76	1,89	0,13	7,20%	here
1.A.1.c	12,21	12,06	-0,15	-1,24%	here

	Submission 2022	Submission 2023	Difference		Reasoning
NFR Sector	[kt]			relative	see description and reasoning in:
NATIONAL TOTAL	2.452,06	2.450,53	-1,53	-0,06%	sub-category chapters
NFR 1 - Energy	1.705,99	1.704,20	-1,79	-0,11%	sub-category chapters
1.A.2.a	26,94	25,28	-1,66	-6,16%	here
1.A.2.b	0,138	0,136	-0,002	-1,49%	here
1.A.2.e	0,074	0,071	-0,003	-3,89%	here
1.A.2.f	1,41	1,43	0,02	1,51%	here
1.A.2.g vii	129,10	156,70	27,60	21,38%	here
1.A.2.g viii	17,25	18,46	1,21	7,00%	here
1.A.3.a i(i)	2,74	2,56	-0,18	-6,58%	here
1.A.3.a ii(i)	1,77	1,68	-0,09	-5,12%	here
1.A.3.b i	642,84	625,44	-17,40	-2,71%	here
1.A.3.b ii	36,81	36,47	-0,34	-0,92%	here
1.A.3.b iii	32,49	40,53	8,04	24,76%	here
1.A.3.b iv	68,00	69,19	1,19	1,75%	here
1.A.3.c	1,11	1,21	0,10	8,60%	here
1.A.3.d ii	3,32	3,37	0,04	1,29%	here
1.A.4.a i	46,12	47,75	1,62	3,52%	here
1.A.4.a ii	2,35	2,09	-0,26	-11,05%	here
1.A.4.b i	398,49	393,03	-5,46	-1,37%	here
1.A.4.b ii	106,65	82,38	-24,26	-22,75%	here
1.A.4.c i	14,92	14,90	-0,02	-0,15%	here
1.A.4.c ii	60,04	67,74	7,70	12,83%	here
1.A.4.c iii	0,04	0,04	0,00	0,00%	here
1.A.5.a	1,20	1,27	0,07	5,51%	here
1.A.5.b	8,91	8,89	-0,02	-0,17%	here
1.B.1.b	3,827	3,828	0,001	0,03%	here
NFR 2 - IPPU	738,131	738,392	0,26	0,04%	sub-category chapters
2.A.3	0,80	0,52	-0,27	-34,30%	here
2.H.1	NE	0,53	0,53		here
NFR 3 - Agriculture	NA				
NFR 5 - Waste	7,94	7,94	0,00	0,00%	
NFR 6 - Other	NA				