

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

The negligible 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.

Table 2: Changes in emission estimates for 2019

NFR Sector	Submission 2022	Submission 2023	Difference		Reasoning
	[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
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

	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.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				