

# Recalculations - Carbon monoxide (CO)

The significant changes in the **National Total** reported for **1990 (-125 kt or -1 %)** are dominated by a revision in NFR **1.A.2.f** (-159 kt) together with re-allocated estimates for NFR **2.A.2** (IE -> 15.4 kt). Furthermore, emissions from NFR **2.B.6** have been estimated for the first time (NE -> 19.5 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>	<b>see description and reasoning in: sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>11.772,32</b>	<b>12.045,28</b>	<b>272,96</b>	<b>2,32%</b>	<b>sub-category chapters</b>
1.A.2.g vii	82,70	82,82	0,12	0,15%	<a href="#">here</a>
1.A.2.g viii	65,70	65,70	0,00	0,00%	<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>	<b>sub-category chapters</b>
2.H.1	NE	0,11	0,11		<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	NO	#WERT!	#WERT!	<a href="#">here</a>
2.K	NA	NA	#WERT!	#WERT!	<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 remarkable changes in the **National Total** reported for **2019 (-132 kt | -4.60 %)** result mainly from a revision within **NFR 1.A.2.f (-141 kt)** together with other more or less significant revisions in NFRs 1, 2, 3 and 5.

Table 2: Changes in emission estimates for 2019

NFR Sector	Submission 2021	Submission 2022	Difference		Reasoning
	[kt]		absolute	relative	
<b>NATIONAL TOTAL</b>	<b>2.882,74</b>	<b>2.750,27</b>	<b>-132,47</b>	<b>-4,60%</b>	<b>see description and reasoning in: sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>2.061,08</b>	<b>1.894,50</b>	<b>-166,59</b>	<b>-8,08%</b>	<b>sub-category chapters</b>
1.A.1.a	94,47	91,42	-3,05	-3,23%	<a href="#">here</a>
1.A.1.b	2,15	2,14	-0,01	-0,43%	<a href="#">here</a>
1.A.1.c	10,74	12,92	2,18	20,27%	<a href="#">here</a>
1.A.2.a	32,14	29,16	-2,98	-9,27%	<a href="#">here</a>
1.A.2.b	0,150	0,146	-0,005	-3,15%	<a href="#">here</a>
1.A.2.e	0,081	0,077	-0,005	-5,62%	<a href="#">here</a>
1.A.2.f	142,36	1,42	-140,93	-99,00%	<a href="#">here</a>
1.A.2.g vii	126,74	124,61	-2,13	-1,68%	<a href="#">here</a>
1.A.2.g viii	17,93	17,77	-0,15	-0,85%	<a href="#">here</a>
1.A.3.a i(i)	6,56	6,26	-0,30	-4,53%	<a href="#">here</a>
1.A.3.a ii(i)	6,23	2,91	-3,33	-53,37%	<a href="#">here</a>
1.A.3.b i	796,91	778,21	-18,70	-2,35%	<a href="#">here</a>

	Submission 2021	Submission 2022	Difference		Reasoning
<b>NFR Sector</b>	<b>[kt]</b>			<b>relative</b>	<b>see description and reasoning in:</b>
<b>NATIONAL TOTAL</b>	<b>2.882,74</b>	<b>2.750,27</b>	<b>-132,47</b>	<b>-4,60%</b>	<b>sub-category chapters</b>
<b>NFR 1 - Energy</b>	<b>2.061,08</b>	<b>1.894,50</b>	<b>-166,59</b>	<b>-8,08%</b>	<b>sub-category chapters</b>
1.A.3.b ii	38,16	38,03	-0,14	-0,36%	<a href="#">here</a>
1.A.3.b iii	38,78	38,89	0,10	0,27%	<a href="#">here</a>
1.A.3.b iv	71,40	70,62	-0,78	-1,10%	<a href="#">here</a>
1.A.3.c	1,06	1,17	0,11	10,48%	<a href="#">here</a>
1.A.3.d ii	3,60	3,81	0,21	5,75%	<a href="#">here</a>
1.A.4.a i	46,73	47,70	0,98	2,09%	<a href="#">here</a>
1.A.4.a ii	2,375	2,372	-0,003	-0,12%	<a href="#">here</a>
1.A.4.b i	424,49	427,59	3,10	0,73%	<a href="#">here</a>
1.A.4.b ii	113,39	111,87	-1,51	-1,33%	<a href="#">here</a>
1.A.4.c i	14,03	15,05	1,02	7,30%	<a href="#">here</a>
1.A.4.c ii	52,76	52,24	-0,52	-0,99%	<a href="#">here</a>
1.A.4.c iii	0,05	0,03	-0,02	-33,19%	<a href="#">here</a>
1.A.5.a	0,78	1,09	0,31	39,74%	<a href="#">here</a>
1.A.5.b	11,49	11,44	-0,05	-0,46%	<a href="#">here</a>
1.B.1.b	4,71	4,73	0,02	0,33%	<a href="#">here</a>
1.B.2.a iv	0,3537	0,3538	0,0001	0,01%	
1.B.2.c	0,12009	0,12011	0,00002	0,01%	
<b>NFR 2 - IPPU</b>	<b>803,293</b>	<b>837,145</b>	<b>33,85</b>	<b>4,21%</b>	<b>sub-category chapters</b>
2.A.2	IE	11,76	11,76		<a href="#">here</a>
2.A.3	IE	0,87	0,87		<a href="#">here</a>
2.B.1	NA	0,29	0,29		<a href="#">here</a>
2.B.6	NE	20,93	20,93		<a href="#">here</a>
<b>NFR 3 - Agriculture</b>	<b>NA</b>				
<b>NFR 5 - Waste</b>	<b>18,36</b>	<b>18,62</b>	<b>0,26</b>	<b>1,44%</b>	<b>sub-category chapters</b>
5.C.2	18,27	18,53	0,26	1,44%	<a href="#">here</a>
<b>NFR 6 - Other</b>	<b>19,55</b>	<b>19,55</b>	<b>0,00</b>	<b>0,00%</b>	