

Recalculations - Nitrogen Oxides

The marginal changes within the **National Total** reported for **1990 (-1.01kt or -0.04%)** are dominated by changes in NFRs **1.A.2.g vii** and **1.A.4.c ii** together with less significant revisions throughout NFRs 1, 2 and 3.

The most significant percental change occurs for **NFR 3.D.a.2.c with minus 92%**.

Table 1: Changes of emission estimates 1990

		Submission 2024	Submission 2025			
NFR Sector	[kt]			relative	see description and reasoning in:	
NATIONAL TOTAL	2.842,27	2.846,04	3,77	0,13%	sub-category chapters	
NFR 1 - Energy	2.597,94	2.599,34	1,40	0,05%	sub-category chapters	
1.A.1.a	464,36	464,36	0,00	0,00%	here	
1.A.1.b	36,84	36,84	0,00	0,00%	here	
1.A.1.c	107,23	107,23	0,00	0,00%	here	
1.A.2.a	50,32	50,32	0,00	0,00%	here	
1.A.2.b	2,21	2,21	0,00	0,00%	here	
1.A.2.c	IE	IE	#WERT!	#WERT!	1.A.2.c - Stationary combustion in manufacturing industries and construction: Chemicals	
1.A.2.d	IE	IE	#WERT!	#WERT!	here	
1.A.2.e	3,60	3,60	0,00	0,00%		here
1.A.2.f	2,64	2,64	0,00	0,00%		here
1.A.2.g vii	35,42	34,65	-0,76	-2,16%	here	
1.A.2.g viii	201,21	201,21	0,00	0,00%	here	
1.A.3.a i(i)	3,66	3,66	0,00	0,00%	here	
1.A.3.a ii(i)	2,60	2,60	0,00	0,00%	here	
1.A.3.b i	795,98	795,98	0,00	0,00%	here	
1.A.3.b ii	32,82	32,82	0,00	0,00%	here	
1.A.3.b iii	482,15	482,15	0,00	0,00%	here	
1.A.3.b iv	2,49	2,49	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				here	
1.A.3.c	45,49	45,49	0,00	0,00%	here	
1.A.3.d i(ii)	IE	IE	#WERT!	#WERT!		
1.A.3.d ii	51,59	53,25	1,66	3,22%	here	
1.A.3.e i	3,99	3,99	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	47,36	47,36	0,00	0,00%	here	
1.A.4.a ii	10,59	10,44	-0,15	-1,40%	here	
1.A.4.b i	90,29	90,29	0,00	0,00%	here	
1.A.4.b ii	0,08	0,08	0,00	0,00%	here	
1.A.4.c i	6,11	6,11	0,00	0,00%	here	
1.A.4.c ii	63,59	64,29	0,69	1,09%	here	
1.A.4.c iii	0,39	0,38	-0,01	-1,90%	here	
1.A.5.a	5,49	5,49	0,00	0,00%	here	
1.A.5.b	41,20	41,17	-0,03	-0,08%	here	

		Submission 2024	Submission 2025			
NFR Sector	[kt]			relative	see description and reasoning in:	
NATIONAL TOTAL	2.842,27	2.846,04	3,77	0,13%	sub-category chapters	
NFR 1 - Energy	2.597,94	2.599,34	1,40	0,05%	sub-category chapters	
1.B.1.a	NA	NA	#WERT!	#WERT!	here	
1.B.1.b	0,35	0,35	0,00	0,00%	here	
1.B.1.c	NA	NA	#WERT!	#WERT!	here	
1.B.2.a i	NA	NA	#WERT!	#WERT!		
1.B.2.a iv	0,2380	0,2380	0,00	0%		
1.B.2.a v	NA	NA	#WERT!	#WERT!		
1.B.2.b	0,07	0,07	0,00	0,00%		
1.B.2.c	7,60	7,60	0,00	0,00%		
1.B.2.d	NA	NA	#WERT!	#WERT!		
NFR 2 - IPPU	100,73	100,73	0,00	0,00%	sub-category chapters	
2.A.1	37,58	37,58	0,00	0,00%	2.A.1 - Cement Production	
2.A.2	9,50	9,50	0,00	0,00%		2.A.2 - Lime Production
2.A.3	30,90	30,90	0,00	0,00%		2.A.3 - Glass Production
2.A.5.a	NA	NA	#WERT!	#WERT!		2.A.5.a - Quarrying and Mining of Minerals other than Coal
2.A.5.b	NA	NA	#WERT!	#WERT!		2.A.5.b - Construction and Demolition
2.A.5.c	NA	NA	#WERT!	#WERT!		2.A.5.c - Storage, Handling and Transport of Mineral Products
2.A.6	IE	IE	#WERT!	#WERT!		2.A.6 - Other Mineral Products
2.B.1	2,70	2,70	0,00	0,00%	2.B.1 - Ammonia Production	
2.B.2	11,30	11,30	0,00	0,00%		2.B.2 - Nitric Acid Production
2.B.3	0,09	0,091	0,00	0,00%		2.B.3 - Adipic Acid Production
2.B.5	NA	NA	#WERT!	#WERT!		2.B.5 - Carbide Production
2.B.6	0,04	0,04	0,04			2.B.6 - Titanium Dioxide Production
2.B.7	NA	NA	#WERT!	#WERT!		2.B.7 - Soda Ash Production
2.B.10.a	NA	NA	#WERT!	#WERT!		2.B.10.a - Other
2.B.10.b	NA	NA	#WERT!	#WERT!		2.B.10.b - Storage, Handling and Transport of Chemical Products
2.C.1	4,60	4,60	0,00	0,00%	2.C.1 - Iron and Steel Production	
2.C.2	NE	NE	#WERT!	#WERT!		2.C.2 - Ferroalloys Production
2.C.3	0,74	0,74	0,00	0,00%	here	
2.C.4	NA	NA	#WERT!	#WERT!	2.C.4 - Magnesium Production	
2.C.5	NA	NA	#WERT!	#WERT!		2.C.5 - Lead Production
2.C.6	NA	NA	#WERT!	#WERT!		2.C.6 - Zinc Production
2.C.7.a	NA	NA	#WERT!	#WERT!		2.C.7.a - Copper Production
2.C.7.b	NE	NE	#WERT!	#WERT!		2.C.7.b - Nickel Production

		Submission 2024	Submission 2025			
NFR Sector	[kt]			relative	see description and reasoning in:	
NATIONAL TOTAL	2.842,27	2.846,04	3,77	0,13%	sub-category chapters	
NFR 1 - Energy	2.597,94	2.599,34	1,40	0,05%	sub-category chapters	
2.C.7.c	NA	NA	#WERT!	#WERT!		2.C.7.c - Other Metal_Production
2.C.7.d	NA	NA	#WERT!	#WERT!		2.C.7.d - Storage, Handling and Transport of Metal Products
2.D.3.a	NA	NA	#WERT!	#WERT!	2.D.3.a - Domestic Solvent Use including fungicides	
2.D.3.b	0,75	0,75	0,00	0,00%		2.D.3.b - Road Paving with Asphalt
2.D.3.c	NA	NA	#WERT!	#WERT!		2.D.3.c - Asphalt Roofing
2.D.3.d	NA	NA	#WERT!	#WERT!		2.D.3.d - Coating Applications
2.D.3.e	NA	NA	#WERT!	#WERT!		2.D.3.e - Degreasing
2.D.3.f	NA	NA	#WERT!	#WERT!		2.D.3.f - Dry Cleaning
2.D.3.g	NA	NA	#WERT!	#WERT!		2.D.3.g - Chemical Products
2.D.3.h	NA	NA	#WERT!	#WERT!		2.D.3.h - Printing
2.D.3.i	NA	NA	#WERT!	#WERT!	here	
2.G	0,31	0,31	0,00	0,00%	here	
2.H.1	2,21	2,21	0,00	0,00%	2.H.1 - Pulp and Paper Industry	
2.H.2	NA	NA	#WERT!	#WERT!		2.H.2 - Food and Beverages Industry
2.H.3	NA	NA	#WERT!	#WERT!		2.H.3 - Other Industrial Processes
2.I	NA	NA	#WERT!	#WERT!	here	
2.J	NO	NO	#WERT!	#WERT!	here	
2.K	NA	NA	#WERT!	#WERT!	2.K - Consumption of POPs and Heavy Metals	
2.L	NA	NA	#WERT!	#WERT!	here	
NFR 3 - Agriculture	142,87	145,23	2,36	1,65%	sub-category chapters	
3.B.1.a	0,67	0,89	0,22	33,02%	here	
3.B.1.b	0,6896	0,8427	0,15	22,19%	here	
3.B.2	0,02	0,04	0,02	100,00%	here	
3.B.3	0,28	0,36	0,08	28,14%	here	
3.B.4.a	NO	NO	#WERT!	#WERT!	here	
3.B.4.d	0,00114	0,00228	0,00114	100,00%	here	
3.B.4.e	0,042	0,232	0,190	450,00%	here	
3.B.4.f	IE	IE	#WERT!	#WERT!	here	
3.B.4.g i	0,014235	0,014235	0,000000	0,000%	here	
3.B.4.g ii	0,00562	0,00560	-0,00002	-0,41%	here	
3.B.4.g iii	0,00339	0,00343	0,00004	1,23%	here	
3.B.4.g iv	0,0025	0,0028	0,0003	13,7%	here	
3.B.4.h	0,0038	0,0077	0,0038	100,00%	here	
3.D.a.1	86,53	86,53	0,00	0,00%	here	
3.D.a.2.a	44,59	45,94	1,35	3,04%	here	
3.D.a.2.b	1,08	1,08	0,00	0,00%	here	
3.D.a.2.c	0,428	0,428	0,00	0,00%	here	
3.D.a.3	8,50	8,84	0,34	4,01%	here	

		Submission 2024	Submission 2025			
NFR Sector	[kt]			relative	see description and reasoning in:	
NATIONAL TOTAL	2.842,27	2.846,04	3,77	0,13%	sub-category chapters	
NFR 1 - Energy	2.597,94	2.599,34	1,40	0,05%	sub-category chapters	
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	0,000079	0,000079	0,000000	0,00%		
NFR 5 - Waste	0,74	0,74	0,00	0,00%	sub-category chapters	
5.A	NA	NA	#WERT!	#WERT!	5.A - Biological Treatment of Waste - Solid Waste Disposal on Land	
5.B.1	NA	NA	#WERT!	#WERT!		5.B.1 - Biological treatment of waste - Composting
5.B.2	NA	NA	#WERT!	#WERT!		5.B.2 - Biological treatment of waste - Anaerobic digestion at biogas facilities
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	0,139687350	0,139687350	0,00	0,00%		5.C.1.b.v - Cremation
5.C.1.b vi	NA	NA	#WERT!	#WERT!		
5.C.2	0,595323720	0,595323720	0,00	0,00%		5.C.2 - Open Burning of Waste
5.D.1	NA	NA	#WERT!	#WERT!		5.D.1 - Domestic & Commercial Wastewater Handling
5.D.2	NA	NA	#WERT!	#WERT!		5.D.2 - Industrial Wastewater Handling
5.D.3	NO	NO	#WERT!	#WERT!		
5.E	NE	NE	#WERT!	#WERT!		5.E - Other Waste
NFR 6 - Other	0,00	0,00	0,00	#DIV/0!		

The small changes within the **National Total** reported for **2021 (-3.67 kt or -0.38 %)** result from a variety of **revisions in sub-categories of NFR 1** together with less significant revisions **throughout NFRs 2, 3 and 5**.

Here, the most significant percental change occurs for **NFR 5.C.2 with plus 53 %**.

Table 2: Changes of emission estimates 2020

	Submission 2023	Submission 2024	Difference		Reasoning
NFR Sector	[kt]			relative	see description and reasoning in:
NATIONAL TOTAL	968.78	965.11	-3.67	-0.38%	sub-category chapters
NFR 1 - Energy	801.62	800.31	-1.31	-0.16%	sub-category chapters
1.A.1.a	203.25	203.63	0.38	0.19%	here
1.A.1.b	13.53	13.76	0.24	1.76%	here
1.A.1.c	12.43	12.99	0.56	4.54%	here

	Submission 2023	Submission 2024	Difference		Reasoning
NFR Sector	[kt]		absolute	relative	see description and reasoning in:
NATIONAL TOTAL	968.78	965.11	-3.67	-0.38%	sub-category chapters
NFR 1 - Energy	801.62	800.31	-1.31	-0.16%	sub-category chapters
1.A.2.a	3.98	3.84	-0.14	-3.56%	here
1.A.2.b	0.89	0.97	0.09	9.64%	here
1.A.2.e	0.17	0.20	0.03	16.6%	here
1.A.2.g vii	13.41	8.21	<u>-5.21</u>	-38.8%	here
1.A.2.g viii	71.15	69.69	-1.46	-2.05%	here
1.A.3.a i(i)	5.55	5.54	-0.01	-0.24%	here
1.A.3.a ii(i)	0.93	0.86	-0.07	-7.97%	here
1.A.3.b i	189.99	184.83	<u>-5.16</u>	-2.71%	here
1.A.3.b ii	48.53	47.93	-0.60	-1.23%	here
1.A.3.b iii	79.01	79.19	0.18	0.23%	here
1.A.3.b iv	1.38	1.34	-0.04	-2.97%	here
1.A.3.c	8.84	8.86	0.02	0.18%	here
1.A.3.d ii	22.40	24.18	1.78	7.96%	here
1.A.4.a i	22.81	18.67	<u>-4.14</u>	-18.1%	here
1.A.4.a ii	7.10	7.18	0.08	1.12%	here
1.A.4.b i	56.85	61.60	<u>4.75</u>	8.36%	here
1.A.4.b ii	0.3913	0.4093	0.02	4.60%	here
1.A.4.c i	6.82	7.08	0.26	3.87%	here
1.A.4.c ii	26.21	33.67	<u>7.45</u>	28.4%	here
1.A.4.c iii	0.3132	0.3132	0.00	0.00%	here
1.A.5.a	0.275	0.275	0.000	0.01%	here
1.A.5.b	2.80	2.80	0.00	0.01%	here
1.B.1.b	0.61	0.28	-0.32	-53.1%	here
NFR 2 - IPPU	58.42	58.25	-0.17	-0.29%	sub-category chapters
2.A.3	11.13	10.95	-0.17	-1.56%	here
2.B.2	0.99	0.99	0.00	-0.06%	here
2.C.1	20.748	20.751	0.003	0.01%	here
NFR 3 - Agriculture	108.00	105.74	-2.26	-2.09%	sub-category chapters
3.B.1.a	0.492	0.493	0.001	0.19%	here
3.B.1.b	0.494	0.497	0.004	0.74%	here
3.B.3	0.226	0.222	-0.004	-1.81%	here
3.B.4.g i	0.0184	0.0185	0.0001	0.42%	here
3.B.4.g ii	0.0135	0.0135	0.0000	0.26%	here
3.B.4.g iii	0.00939	0.00941	0.00002	0.24%	here
3.B.4.g iv	0.00202	0.00202	0.000002	0.09%	here
3.D.a.1	51.30	49.08	-2.22	-4.32%	here
3.D.a.2.a	36.15	36.22	0.07	0.20%	here
3.D.a.2.b	0.49	0.47	-0.02	-3.85%	here
3.D.a.2.c	13.99	13.75	-0.24	-1.72%	here
3.D.a.3	4.59	4.78	0.19	4.15%	here
3.I	0.17	0.12	-0.05	-27.2%	here
NFR 5 - Waste	0.74	0.81	0.06	8.69%	sub-category chapters
5.C.2	0.12	0.19	0.06	<u>53.3%</u>	here
NFR 6 - Other	NA				