



FINLAND'S INFORMATIVE INVENTORY REPORT 2025

Air Pollutant Emissions 1980-2023

under the UNECE CLRTAP and the EU NECD

Part 7 - Annexes

March 2025

FINNISH ENVIRONMENT INSTITUTE

Climate solutions unit

Air pollution group

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Cover photo Part 5: Marja-Leena Nenonen (2006) Kivijäkälä (Stone lichen), Ympäristöhallinnon kuvapankki

Annex 1

Implied emission factor tables for fuel combustion in 2023 (2025 submission)

Updated March 2025 (TF)

NOx Implied emission factors in Finnish air pollutant inventory for 2023

2023	NOx	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.062913425	t/TJ
2023	NOx	1A1a	ANIMAL-BASED FUELS	0.053829207	t/TJ
2023	NOx	1A1a	ANTHRACITE	0.064683263	t/TJ
2023	NOx	1A1a	ASPHALTENE	0.021336785	t/TJ
2023	NOx	1A1a	BARK	0.071187160	t/TJ
2023	NOx	1A1a	BIO PELLETS (NON-WOOD)	0.067202041	t/TJ
2023	NOx	1A1a	BIO PYROLYSIS OIL	0.005740070	t/TJ
2023	NOx	1A1a	BIO-FUEL OIL	0.053276898	t/TJ
2023	NOx	1A1a	BIOLOGICAL SLURRY	8.369563014	t/TJ
2023	NOx	1A1a	BLAST FURNACE GAS	0.008640400	t/TJ
2023	NOx	1A1a	CHIPS FROM ROUNDWOOD	0.076710000	t/TJ
2023	NOx	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.048465925	t/TJ
2023	NOx	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.076930983	t/TJ
2023	NOx	1A1a	COAL (S=1.0%)	0.073089202	t/TJ
2023	NOx	1A1a	COKE OVEN GAS	0.008640400	t/TJ
2023	NOx	1A1a	CUTTER CHIPS ETC.	0.069574900	t/TJ
2023	NOx	1A1a	DEINKING WASTE	0.086887081	t/TJ
2023	NOx	1A1a	DEMOLITION WOOD	0.159928323	t/TJ
2023	NOx	1A1a	DIESEL OIL (S=001%)	0.086124286	t/TJ
2023	NOx	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.088267745	t/TJ
2023	NOx	1A1a	FOREST RESIDUE CHIPS	0.101651589	t/TJ
2023	NOx	1A1a	FOREST RESIDUE CHIPS	0.072504272	t/TJ
2023	NOx	1A1a	GASOIL (FOR NON-ROAD USE)	0.066209925	t/TJ
2023	NOx	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.052119061	t/TJ
2023	NOx	1A1a	HEAVY FUEL OIL (S<0,1%)	0.071857718	t/TJ
2023	NOx	1A1a	HEAVY FUEL OIL (S<0,5%)	0.099942734	t/TJ
2023	NOx	1A1a	HEAVY FUEL OIL (S<1%)	0.062217515	t/TJ
2023	NOx	1A1a	HYDROGEN	0.043686351	t/TJ
2023	NOx	1A1a	IMPREGNATED WOOD	0.053662265	t/TJ
2023	NOx	1A1a	INDUSTRIAL WASTE	0.125696842	t/TJ
2023	NOx	1A1a	LANDFILL GAS	0.035661911	t/TJ
2023	NOx	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.384251559	t/TJ
2023	NOx	1A1a	LIGNIN	0.060389605	t/TJ
2023	NOx	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.062984236	t/TJ
2023	NOx	1A1a	LIQUID GAS	0.067605670	t/TJ
2023	NOx	1A1a	MILLED PEAT	0.092311864	t/TJ
2023	NOx	1A1a	MOTOR GASOLINE (S=0.001%)	0.100000000	t/TJ
2023	NOx	1A1a	MUNICIPAL WASTE - unsorted	0.099350086	t/TJ
2023	NOx	1A1a	NAPHTHA	0.176470588	t/TJ
2023	NOx	1A1a	NATURAL GAS	0.031564571	t/TJ
2023	NOx	1A1a	NATURAL GAS	0.037400717	t/TJ
2023	NOx	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.062940164	t/TJ
2023	NOx	1A1a	OTHER FOSSIL GAS	0.110825543	t/TJ
2023	NOx	1A1a	OTHER FOSSIL SOLID	0.095205693	t/TJ
2023	NOx	1A1a	OTHER FUEL	0.112914957	t/TJ
2023	NOx	1A1a	OTHER NON-FOSSIL GAS	0.091131475	t/TJ
2023	NOx	1A1a	OTHER NON-FOSSIL SOLID	0.059069035	t/TJ
2023	NOx	1A1a	OTHER NON-FOSSIL SOLID	0.117375623	t/TJ
2023	NOx	1A1a	OTHER WASTE	0.099093973	t/TJ
2023	NOx	1A1a	OTHER WOOD RESIDUE	0.133738333	t/TJ
2023	NOx	1A1a	PAPER	0.062012218	t/TJ
2023	NOx	1A1a	PEAT PELLETS AND BRIQUETTES	0.132676925	t/TJ
2023	NOx	1A1a	PLASTIC WASTE	1.082092299	t/TJ
2023	NOx	1A1a	RECOVERED FUEL (REF 2)	0.100000000	t/TJ

2023	NOx	1A1a	RECOVERED WOOD	0.092509300	t/TJ
2023	NOx	1A1a	RECYCLED AND WASTE OILS	0.054260736	t/TJ
2023	NOx	1A1a	RENEWABLE DIESEL	0.217640321	t/TJ
2023	NOx	1A1a	SAWDUST	0.089618486	t/TJ
2023	NOx	1A1a	SOD PEAT	0.191742680	t/TJ
2023	NOx	1A1a	SOLID RECOVERED FUEL (SRF)	0.106782521	t/TJ
2023	NOx	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.059809715	t/TJ
2023	NOx	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.099726894	t/TJ
2023	NOx	1A1a	WOOD RESIDUE CHIPS	0.091430161	t/TJ
2023	NOx	1A1a	WOOD STUMP CHIPS	0.066890059	t/TJ
2023	NOx	1A1b	COKE (S=1.0%)	0.256288314	t/TJ
2023	NOx	1A1b	HEAVY FUEL OIL (S<1%)	0.040987176	t/TJ
2023	NOx	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.052107035	t/TJ
2023	NOx	1A1b	LIQUID GAS	0.040987176	t/TJ
2023	NOx	1A1b	NATURAL GAS	0.046634252	t/TJ
2023	NOx	1A1b	NATURAL GAS	0.044312841	t/TJ
2023	NOx	1A1b	OTHER FOSSIL LIQUID	0.052982393	t/TJ
2023	NOx	1A1b	OTHER MEDIUM DISTILLATES	0.068834700	t/TJ
2023	NOx	1A1b	OTHER NON-FOSSIL GAS	0.042714719	t/TJ
2023	NOx	1A1b	PETROLEUM COKE	0.048118635	t/TJ
2023	NOx	1A1b	REFINERY GAS	0.053395372	t/TJ
2023	NOx	1A1b	REFINERY GASES	0.047486735	t/TJ
2023	NOx	1A1b	SULPHUR CONCENTRATE	0.116139204	t/TJ
2023	NOx	1A2a	BLAST FURNACE GAS	0.041995855	t/TJ
2023	NOx	1A2a	COKE (S=1.0%)	0.542879501	t/TJ
2023	NOx	1A2a	COKE OVEN GAS	0.188486090	t/TJ
2023	NOx	1A2a	DIESEL OIL (S=001%)	0.045247589	t/TJ
2023	NOx	1A2a	GASOIL (FOR NON-ROAD USE)	0.013458969	t/TJ
2023	NOx	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.091538831	t/TJ
2023	NOx	1A2a	LIQUID GAS	0.205870184	t/TJ
2023	NOx	1A2a	NATURAL GAS	0.136796478	t/TJ
2023	NOx	1A2a	OTHER FOSSIL SOLID	0.009317227	t/TJ
2023	NOx	1A2a	WOOD RESIDUE CHIPS	0.311252269	t/TJ
2023	NOx	1A2b	COAL (S=1.0%)	0.170000000	t/TJ
2023	NOx	1A2b	COKE (S=1.0%)	0.087153676	t/TJ
2023	NOx	1A2b	DIESEL OIL (S=001%)	0.019223301	t/TJ
2023	NOx	1A2b	GASOIL (FOR NON-ROAD USE)	0.100000000	t/TJ
2023	NOx	1A2b	HEAVY FUEL OIL (S<1%)	0.148033078	t/TJ
2023	NOx	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.098475942	t/TJ
2023	NOx	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.068863157	t/TJ
2023	NOx	1A2b	LIQUID GAS	0.050331572	t/TJ
2023	NOx	1A2b	MOTOR GASOLINE (S=0.001%)	0.035769545	t/TJ
2023	NOx	1A2b	NATURAL GAS	0.019706003	t/TJ
2023	NOx	1A2b	OTHER HEAVY DISTILLATES	0.087153676	t/TJ
2023	NOx	1A2c	AROMATIC GAS	0.038711709	t/TJ
2023	NOx	1A2c	DIESEL OIL (S=001%)	0.100000000	t/TJ
2023	NOx	1A2c	GASIFIED WASTE	0.017284381	t/TJ
2023	NOx	1A2c	GASOIL (FOR NON-ROAD USE)	0.207078252	t/TJ
2023	NOx	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.222212626	t/TJ
2023	NOx	1A2c	HEAVY FUEL OIL (S<0,1%)	0.062588235	t/TJ
2023	NOx	1A2c	HEAVY FUEL OIL (S<1%)	0.798959087	t/TJ
2023	NOx	1A2c	HYDROGEN	0.397257926	t/TJ
2023	NOx	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.112915968	t/TJ
2023	NOx	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.172747988	t/TJ
2023	NOx	1A2c	LIQUID GAS	0.039648945	t/TJ
2023	NOx	1A2c	METHANOL	0.027651220	t/TJ

2023	NOx	1A2c	NATURAL GAS	0.020751127	t/TJ
2023	NOx	1A2c	OTHER FOSSIL GAS	0.002115027	t/TJ
2023	NOx	1A2c	OTHER FOSSIL LIQUID	0.045360811	t/TJ
2023	NOx	1A2c	OTHER FUEL	0.049563084	t/TJ
2023	NOx	1A2c	OTHER NON-FOSSIL SOLID	0.074673604	t/TJ
2023	NOx	1A2c	OTHER WASTE	0.042218353	t/TJ
2023	NOx	1A2c	REFINERY GASES	0.034607144	t/TJ
2023	NOx	1A2c	RENEWABLE DIESEL	0.100000000	t/TJ
2023	NOx	1A2c	TALL PITCH AND OIL	0.129290546	t/TJ
2023	NOx	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.052722261	t/TJ
2023	NOx	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.082557595	t/TJ
2023	NOx	1A2d	ANIMAL-BASED FUELS	0.060681502	t/TJ
2023	NOx	1A2d	AROMATIC GAS	0.249337647	t/TJ
2023	NOx	1A2d	BARK	0.123746482	t/TJ
2023	NOx	1A2d	BIO-FUEL OIL	0.094972252	t/TJ
2023	NOx	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.033087469	t/TJ
2023	NOx	1A2d	BIOLOGICAL SLURRY	0.070883267	t/TJ
2023	NOx	1A2d	BLACK LIQUOR	0.052428768	t/TJ
2023	NOx	1A2d	CHIPS FROM ROUNDWOOD	0.083004035	t/TJ
2023	NOx	1A2d	COAL (S=1.0%)	0.098549889	t/TJ
2023	NOx	1A2d	CUTTER CHIPS ETC.	0.083784292	t/TJ
2023	NOx	1A2d	DEMOLITION WOOD	0.060681502	t/TJ
2023	NOx	1A2d	FOREST RESIDUE CHIPS	0.046714490	t/TJ
2023	NOx	1A2d	GASOIL (FOR NON-ROAD USE)	0.086050505	t/TJ
2023	NOx	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.120228205	t/TJ
2023	NOx	1A2d	HEAVY FUEL OIL (S<0,1%)	0.028060434	t/TJ
2023	NOx	1A2d	HEAVY FUEL OIL (S<0,5%)	0.101066919	t/TJ
2023	NOx	1A2d	HEAVY FUEL OIL (S<1%)	0.136514844	t/TJ
2023	NOx	1A2d	HYDROGEN	0.082483184	t/TJ
2023	NOx	1A2d	IMPREGNATED WOOD	0.060681502	t/TJ
2023	NOx	1A2d	INDUSTRIAL WASTE	0.157816252	t/TJ
2023	NOx	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.234977693	t/TJ
2023	NOx	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.062516562	t/TJ
2023	NOx	1A2d	LIQUID GAS	0.073429889	t/TJ
2023	NOx	1A2d	METHANOL	0.695262925	t/TJ
2023	NOx	1A2d	MILLED PEAT	0.110394005	t/TJ
2023	NOx	1A2d	NATURAL GAS	0.070000000	t/TJ
2023	NOx	1A2d	NATURAL GAS	0.055904182	t/TJ
2023	NOx	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.128249591	t/TJ
2023	NOx	1A2d	OTHER NON-FOSSIL GAS	0.070000000	t/TJ
2023	NOx	1A2d	OTHER WOOD RESIDUE	0.033211925	t/TJ
2023	NOx	1A2d	PAPER	0.111099841	t/TJ
2023	NOx	1A2d	PLASTIC WASTE	0.099356994	t/TJ
2023	NOx	1A2d	RECOVERED WOOD	0.092972732	t/TJ
2023	NOx	1A2d	RECYCLED AND WASTE OILS	0.060681502	t/TJ
2023	NOx	1A2d	SAWDUST	0.097538967	t/TJ
2023	NOx	1A2d	SOLID RECOVERED FUEL (SRF)	0.089222279	t/TJ
2023	NOx	1A2d	TALL PITCH AND OIL	0.080510560	t/TJ
2023	NOx	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.123034513	t/TJ
2023	NOx	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.047267813	t/TJ
2023	NOx	1A2d	WOOD RESIDUE CHIPS	0.069159315	t/TJ
2023	NOx	1A2d	WOOD STUMP CHIPS	0.060681502	t/TJ
2023	NOx	1A2e	ANIMAL FATS AND OILS	0.072653493	t/TJ
2023	NOx	1A2e	ANIMAL-BASED FUELS	0.100000000	t/TJ
2023	NOx	1A2e	BIO-FUEL OIL	0.051081359	t/TJ
2023	NOx	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.051719801	t/TJ

2023	NOx	1A2e	CHIPS FROM ROUNDWOOD	0.143020557	t/TJ
2023	NOx	1A2e	COAL (S=1.0%)	0.129997991	t/TJ
2023	NOx	1A2e	COKE (S=1.0%)	0.011313315	t/TJ
2023	NOx	1A2e	FOREST RESIDUE CHIPS	0.117689279	t/TJ
2023	NOx	1A2e	GASOIL (FOR NON-ROAD USE)	0.094485142	t/TJ
2023	NOx	1A2e	HEAVY FUEL OIL (S<1%)	0.154734836	t/TJ
2023	NOx	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.075968051	t/TJ
2023	NOx	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.069185365	t/TJ
2023	NOx	1A2e	LIQUID GAS	0.060709479	t/TJ
2023	NOx	1A2e	MILLED PEAT	0.137979712	t/TJ
2023	NOx	1A2e	MOTOR GASOLINE (S=0.001%)	0.100000000	t/TJ
2023	NOx	1A2e	NAPHTHA	0.048938533	t/TJ
2023	NOx	1A2e	NATURAL GAS	0.046284785	t/TJ
2023	NOx	1A2e	NATURAL GAS	0.070000000	t/TJ
2023	NOx	1A2e	OTHER NON-FOSSIL GAS	0.099611633	t/TJ
2023	NOx	1A2e	OTHER NON-FOSSIL SOLID	0.149631234	t/TJ
2023	NOx	1A2e	OTHER NON-FOSSIL SOLID	0.089269547	t/TJ
2023	NOx	1A2e	PEAT PELLETS AND BRIQUETTES	0.124247922	t/TJ
2023	NOx	1A2e	RECOVERED WOOD	0.152642904	t/TJ
2023	NOx	1A2e	SAWDUST	0.120000000	t/TJ
2023	NOx	1A2e	SOD PEAT	0.094252423	t/TJ
2023	NOx	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.101795782	t/TJ
2023	NOx	1A2e	WOOD STUMP CHIPS	0.081426856	t/TJ
2023	NOx	1A2f	CHIPS FROM ROUNDWOOD	0.123999549	t/TJ
2023	NOx	1A2f	COAL (S=1.0%)	0.376728762	t/TJ
2023	NOx	1A2f	COKE (S=1.0%)	0.059030422	t/TJ
2023	NOx	1A2f	COKE OVEN GAS	0.016825351	t/TJ
2023	NOx	1A2f	DIESEL OIL (S=001%)	0.100000000	t/TJ
2023	NOx	1A2f	FOREST RESIDUE CHIPS	0.123999549	t/TJ
2023	NOx	1A2f	GASOIL (FOR NON-ROAD USE)	0.106521084	t/TJ
2023	NOx	1A2f	HEAVY FUEL OIL (S<0,1%)	0.159509182	t/TJ
2023	NOx	1A2f	HEAVY FUEL OIL (S<1%)	0.137413683	t/TJ
2023	NOx	1A2f	INDUSTRIAL WASTE	0.131875093	t/TJ
2023	NOx	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.116753027	t/TJ
2023	NOx	1A2f	LIQUID GAS	0.135027520	t/TJ
2023	NOx	1A2f	MOTOR GASOLINE (S=0.001%)	0.218627872	t/TJ
2023	NOx	1A2f	NATURAL GAS	0.097240175	t/TJ
2023	NOx	1A2f	NATURAL GAS	0.070000000	t/TJ
2023	NOx	1A2f	OTHER FOSSIL GAS	0.005560836	t/TJ
2023	NOx	1A2f	OTHER FOSSIL LIQUID	0.138366219	t/TJ
2023	NOx	1A2f	OTHER FUEL	0.045224268	t/TJ
2023	NOx	1A2f	OTHER NON-FOSSIL GAS	0.070000000	t/TJ
2023	NOx	1A2f	OTHER NON-FOSSIL SOLID	0.062115619	t/TJ
2023	NOx	1A2f	OTHER WASTE	0.131875093	t/TJ
2023	NOx	1A2f	PETROLEUM COKE	0.454813860	t/TJ
2023	NOx	1A2f	PLASTIC WASTE	0.219056899	t/TJ
2023	NOx	1A2f	RECYCLED AND WASTE OILS	0.097031293	t/TJ
2023	NOx	1A2f	REED CANARY GRASS	0.131875093	t/TJ
2023	NOx	1A2f	RUBBER WASTE	0.463044971	t/TJ
2023	NOx	1A2f	SAWDUST	0.062115619	t/TJ
2023	NOx	1A2f	SOLID RECOVERED FUEL (SRF)	0.235690885	t/TJ
2023	NOx	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051763016	t/TJ
2023	NOx	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.273399061	t/TJ
2023	NOx	1A2gvii	LIQUID GAS	0.532933719	t/TJ
2023	NOx	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.303594202	t/TJ
2023	NOx	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.033823385	t/TJ

2023	NOx	1A2gviii	BARK	0.086924658	t/TJ
2023	NOx	1A2gviii	BIO PELLETS (NON-WOOD)	0.194610211	t/TJ
2023	NOx	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.094044352	t/TJ
2023	NOx	1A2gviii	BIOLOGICAL SLURRY	0.120404814	t/TJ
2023	NOx	1A2gviii	CHIPS FROM ROUNDWOOD	0.041996670	t/TJ
2023	NOx	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.120404814	t/TJ
2023	NOx	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.115464734	t/TJ
2023	NOx	1A2gviii	CUTTER CHIPS ETC.	0.823684594	t/TJ
2023	NOx	1A2gviii	DEMOLITION WOOD	0.034118308	t/TJ
2023	NOx	1A2gviii	DIESEL OIL (S=001%)	0.172960679	t/TJ
2023	NOx	1A2gviii	FOREST RESIDUE CHIPS	0.100000000	t/TJ
2023	NOx	1A2gviii	FOREST RESIDUE CHIPS	0.056552953	t/TJ
2023	NOx	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.172233724	t/TJ
2023	NOx	1A2gviii	HAZARDOUS WASTE	0.085967182	t/TJ
2023	NOx	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.105602561	t/TJ
2023	NOx	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.166830226	t/TJ
2023	NOx	1A2gviii	HEAVY FUEL OIL (S<1%)	0.146188589	t/TJ
2023	NOx	1A2gviii	IMPREGNATED WOOD	0.057772314	t/TJ
2023	NOx	1A2gviii	LANDFILL GAS	0.121756383	t/TJ
2023	NOx	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.186535930	t/TJ
2023	NOx	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.058585460	t/TJ
2023	NOx	1A2gviii	LIQUID GAS	0.066241554	t/TJ
2023	NOx	1A2gviii	MILLED PEAT	0.103851491	t/TJ
2023	NOx	1A2gviii	MUNICIPAL WASTE - unsorted	0.071196904	t/TJ
2023	NOx	1A2gviii	NAPHTHA	0.179833790	t/TJ
2023	NOx	1A2gviii	NATURAL GAS	0.070733333	t/TJ
2023	NOx	1A2gviii	NATURAL GAS	0.089788146	t/TJ
2023	NOx	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.057059300	t/TJ
2023	NOx	1A2gviii	OTHER HEAVY DISTILLATES	0.143517285	t/TJ
2023	NOx	1A2gviii	OTHER NON-FOSSIL GAS	0.120623892	t/TJ
2023	NOx	1A2gviii	OTHER NON-FOSSIL SOLID	0.140871975	t/TJ
2023	NOx	1A2gviii	OTHER NON-FOSSIL SOLID	0.180143446	t/TJ
2023	NOx	1A2gviii	OTHER WASTE	0.067808155	t/TJ
2023	NOx	1A2gviii	OTHER WOOD RESIDUE	0.113365003	t/TJ
2023	NOx	1A2gviii	PLASTIC WASTE	0.059298255	t/TJ
2023	NOx	1A2gviii	RECOVERED WOOD	0.075088057	t/TJ
2023	NOx	1A2gviii	RECYCLED AND WASTE OILS	0.089728208	t/TJ
2023	NOx	1A2gviii	RENEWABLE DIESEL	0.087669975	t/TJ
2023	NOx	1A2gviii	SAWDUST	0.068152983	t/TJ
2023	NOx	1A2gviii	SAWDUST AND CUTTER CHIPS	0.100000000	t/TJ
2023	NOx	1A2gviii	SOD PEAT	0.048124341	t/TJ
2023	NOx	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.055725236	t/TJ
2023	NOx	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.121586837	t/TJ
2023	NOx	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.158842177	t/TJ
2023	NOx	1A2gviii	WOOD RESIDUE CHIPS	0.099043166	t/TJ
2023	NOx	1A2gviii	WOOD STUMP CHIPS	0.038894594	t/TJ
2023	NOx	1A3ai(i)	KEROSENE (JET FUEL)	0.322254302	t/TJ
2023	NOx	1A3aii(i)	AVIATION GASOLINE	0.076624100	t/TJ
2023	NOx	1A3aii(i)	KEROSENE (JET FUEL)	0.281050308	t/TJ
2023	NOx	1A3bi	DIESEL OIL (S=001%)	0.290110945	t/TJ
2023	NOx	1A3bi	MOTOR GASOLINE (S=0.001%)	0.032828058	t/TJ
2023	NOx	1A3bi	NATURAL GAS	0.012197823	t/TJ
2023	NOx	1A3bii	DIESEL OIL (S=001%)	0.548978657	t/TJ
2023	NOx	1A3bii	MOTOR GASOLINE (S=0.001%)	0.291659500	t/TJ
2023	NOx	1A3bii	NATURAL GAS	0.017070005	t/TJ
2023	NOx	1A3biii	DIESEL OIL (S=001%)	0.106135538	t/TJ

2023	NOx	1A3biii	NATURAL GAS	0.138172375	t/TJ
2023	NOx	1A3biv	DIESEL OIL (S=001%)	0.529111269	t/TJ
2023	NOx	1A3biv	MOTOR GASOLINE (S=0.001%)	0.087679787	t/TJ
2023	NOx	1A3c	GASOIL (FOR NON-ROAD USE)	1.625362200	t/TJ
2023	NOx	1A3dii	DIESEL OIL (S=001%)	1.440548233	t/TJ
2023	NOx	1A3dii	GASOIL (FOR NON-ROAD USE)	1.280392025	t/TJ
2023	NOx	1A3dii	HEAVY FUEL OIL (normal, S>1%)	1.401021999	t/TJ
2023	NOx	1A3dii	MOTOR GASOLINE (S=0.001%)	0.412767133	t/TJ
2023	NOx	1A3ei	NATURAL GAS	0.027448244	t/TJ
2023	NOx	1A4ai	BIO-FUEL OIL	0.100000000	t/TJ
2023	NOx	1A4ai	FOREST WOODFUEL	0.080000000	t/TJ
2023	NOx	1A4ai	GASOIL (FOR NON-ROAD USE)	0.092798640	t/TJ
2023	NOx	1A4ai	HEAVY FUEL OIL (S<1%)	0.080000000	t/TJ
2023	NOx	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.081507494	t/TJ
2023	NOx	1A4ai	NAPHTHA	0.089988408	t/TJ
2023	NOx	1A4ai	NATURAL GAS	0.051465487	t/TJ
2023	NOx	1A4ai	NATURAL GAS	0.038333106	t/TJ
2023	NOx	1A4ai	SOD PEAT	0.123529412	t/TJ
2023	NOx	1A4aii	GASOIL (FOR NON-ROAD USE)	0.262854345	t/TJ
2023	NOx	1A4aii	MOTOR GASOLINE (S=0.001%)	0.138628075	t/TJ
2023	NOx	1A4bi	FOREST WOODFUEL	0.080000000	t/TJ
2023	NOx	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.080000000	t/TJ
2023	NOx	1A4bi	LIQUID GAS	0.050000000	t/TJ
2023	NOx	1A4bi	NATURAL GAS	0.050000000	t/TJ
2023	NOx	1A4bi	PARAFFIN	0.080000000	t/TJ
2023	NOx	1A4bi	SOD PEAT	0.100000000	t/TJ
2023	NOx	1A4bii	GASOIL (FOR NON-ROAD USE)	0.922333740	t/TJ
2023	NOx	1A4bii	MOTOR GASOLINE (S=0.001%)	0.200254233	t/TJ
2023	NOx	1A4ci	CHIPS FROM ROUNDWOOD	0.085122458	t/TJ
2023	NOx	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.120000000	t/TJ
2023	NOx	1A4ci	COAL (S=1.0%)	0.170000000	t/TJ
2023	NOx	1A4ci	FOREST RESIDUE CHIPS	0.120000000	t/TJ
2023	NOx	1A4ci	FOREST WOODFUEL	0.080000000	t/TJ
2023	NOx	1A4ci	HEAVY FUEL OIL (S<1%)	0.080000000	t/TJ
2023	NOx	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.080000000	t/TJ
2023	NOx	1A4ci	LIQUID GAS	0.050000000	t/TJ
2023	NOx	1A4ci	NATURAL GAS	0.050000000	t/TJ
2023	NOx	1A4ci	OTHER NON-FOSSIL SOLID	0.109246976	t/TJ
2023	NOx	1A4ci	RECOVERED WOOD	0.114763314	t/TJ
2023	NOx	1A4ci	SOD PEAT	0.100434089	t/TJ
2023	NOx	1A4cii	GASOIL (FOR NON-ROAD USE)	0.186429333	t/TJ
2023	NOx	1A4cii	MOTOR GASOLINE (S=0.001%)	0.075678516	t/TJ
2023	NOx	1A4ciii	GASOIL (FOR NON-ROAD USE)	1.237312798	t/TJ
2023	NOx	1A5a	AVIATION GASOLINE	0.083333333	t/TJ
2023	NOx	1A5a	FOREST WOODFUEL	0.100000000	t/TJ
2023	NOx	1A5a	KEROSENE (JET FUEL)	0.223028544	t/TJ
2023	NOx	1A5a	LANDFILL GAS	0.050000000	t/TJ
2023	NOx	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.218444398	t/TJ
2023	NOx	1A5a	LIQUID GAS	0.050000000	t/TJ
2023	NOx	1A5a	NATURAL GAS	0.050000000	t/TJ
2023	NOx	1A5a	OTHER PETROLEUM PRODUCTS	0.080000000	t/TJ

NM VOC Implied emission factors in Finnish air pollutant inventory for 2023

2023	NM VOC	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.016276674	t/TJ
2023	NM VOC	1A1a	ANIMAL-BASED FUELS	0.003000000	t/TJ

2023	NMVOC	1A1a	ASPHALTENE	0.001000000	t/TJ
2023	NMVOC	1A1a	BARK	0.006541458	t/TJ
2023	NMVOC	1A1a	BIO PELLETS (NON-WOOD)	0.003000000	t/TJ
2023	NMVOC	1A1a	BIO PYROLYSIS OIL	0.001000000	t/TJ
2023	NMVOC	1A1a	BIO-FUEL OIL	0.001000000	t/TJ
2023	NMVOC	1A1a	BIOLOGICAL SLURRY	0.003000000	t/TJ
2023	NMVOC	1A1a	BLAST FURNACE GAS	0.001000000	t/TJ
2023	NMVOC	1A1a	CHIPS FROM ROUNDWOOD	0.006999101	t/TJ
2023	NMVOC	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.003186554	t/TJ
2023	NMVOC	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.041469839	t/TJ
2023	NMVOC	1A1a	COAL (S=1.0%)	0.002694600	t/TJ
2023	NMVOC	1A1a	COKE OVEN GAS	0.001000000	t/TJ
2023	NMVOC	1A1a	CUTTER CHIPS ETC.	0.003137462	t/TJ
2023	NMVOC	1A1a	DEINKING WASTE	0.003000000	t/TJ
2023	NMVOC	1A1a	DEMOLITION WOOD	0.009612766	t/TJ
2023	NMVOC	1A1a	DIESEL OIL (S=001%)	0.001145498	t/TJ
2023	NMVOC	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.050000000	t/TJ
2023	NMVOC	1A1a	FOREST RESIDUE CHIPS	0.037460059	t/TJ
2023	NMVOC	1A1a	FOREST RESIDUE CHIPS	0.020415394	t/TJ
2023	NMVOC	1A1a	GASOIL (FOR NON-ROAD USE)	0.001782216	t/TJ
2023	NMVOC	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.002890239	t/TJ
2023	NMVOC	1A1a	HEAVY FUEL OIL (S<0,1%)	0.001064864	t/TJ
2023	NMVOC	1A1a	HEAVY FUEL OIL (S<0,5%)	0.001284047	t/TJ
2023	NMVOC	1A1a	HEAVY FUEL OIL (S<1%)	0.002625788	t/TJ
2023	NMVOC	1A1a	HYDROGEN	0.001000000	t/TJ
2023	NMVOC	1A1a	IMPREGNATED WOOD	0.010935668	t/TJ
2023	NMVOC	1A1a	INDUSTRIAL WASTE	0.040814424	t/TJ
2023	NMVOC	1A1a	LANDFILL GAS	0.001503299	t/TJ
2023	NMVOC	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.003994631	t/TJ
2023	NMVOC	1A1a	LIGNIN	0.003000000	t/TJ
2023	NMVOC	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.001000000	t/TJ
2023	NMVOC	1A1a	LIQUID GAS	0.001221507	t/TJ
2023	NMVOC	1A1a	MILLED PEAT	0.004599638	t/TJ
2023	NMVOC	1A1a	MOTOR GASOLINE (S=0.001%)	0.001000000	t/TJ
2023	NMVOC	1A1a	MUNICIPAL WASTE - unsorted	0.018256781	t/TJ
2023	NMVOC	1A1a	NAPHTHA	0.001000000	t/TJ
2023	NMVOC	1A1a	NATURAL GAS	0.001000000	t/TJ
2023	NMVOC	1A1a	NATURAL GAS	0.001948352	t/TJ
2023	NMVOC	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002810869	t/TJ
2023	NMVOC	1A1a	OTHER FOSSIL GAS	0.009417347	t/TJ
2023	NMVOC	1A1a	OTHER FOSSIL SOLID	0.013985223	t/TJ
2023	NMVOC	1A1a	OTHER FUEL	0.003000000	t/TJ
2023	NMVOC	1A1a	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2023	NMVOC	1A1a	OTHER NON-FOSSIL SOLID	0.009856755	t/TJ
2023	NMVOC	1A1a	OTHER NON-FOSSIL SOLID	0.009855604	t/TJ
2023	NMVOC	1A1a	OTHER WASTE	0.010101293	t/TJ
2023	NMVOC	1A1a	OTHER WOOD RESIDUE	0.009477950	t/TJ
2023	NMVOC	1A1a	PAPER	0.010000000	t/TJ
2023	NMVOC	1A1a	PEAT PELLETS AND BRIQUETTES	0.003000000	t/TJ
2023	NMVOC	1A1a	PLASTIC WASTE	0.003000000	t/TJ
2023	NMVOC	1A1a	RECOVERED FUEL (REF 2)	0.050000000	t/TJ
2023	NMVOC	1A1a	RECOVERED WOOD	0.014890688	t/TJ
2023	NMVOC	1A1a	RECYCLED AND WASTE OILS	0.003000000	t/TJ
2023	NMVOC	1A1a	RENEWABLE DIESEL	0.001000000	t/TJ
2023	NMVOC	1A1a	SAWDUST	0.005476379	t/TJ
2023	NMVOC	1A1a	SOD PEAT	0.016152974	t/TJ

2023	NMVOC	1A1a	SOLID RECOVERED FUEL (SRF)	0.017019185	t/TJ
2023	NMVOC	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.010263924	t/TJ
2023	NMVOC	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.025023526	t/TJ
2023	NMVOC	1A1a	WOOD RESIDUE CHIPS	0.058473287	t/TJ
2023	NMVOC	1A1a	WOOD STUMP CHIPS	0.031287587	t/TJ
2023	NMVOC	1A1b	COKE (S=1.0%)	0.001000000	t/TJ
2023	NMVOC	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.002666086	t/TJ
2023	NMVOC	1A1b	NATURAL GAS	0.003297280	t/TJ
2023	NMVOC	1A1b	NATURAL GAS	0.000851541	t/TJ
2023	NMVOC	1A1b	OTHER FOSSIL LIQUID	0.006532816	t/TJ
2023	NMVOC	1A1b	OTHER MEDIUM DISTILLATES	0.006528092	t/TJ
2023	NMVOC	1A1b	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2023	NMVOC	1A1b	PETROLEUM COKE	0.004000000	t/TJ
2023	NMVOC	1A1b	REFINERY GAS	0.001000000	t/TJ
2023	NMVOC	1A1b	REFINERY GASES	0.000596335	t/TJ
2023	NMVOC	1A1b	SULPHUR CONCENTRATE	0.010911241	t/TJ
2023	NMVOC	1A2a	BLAST FURNACE GAS	0.000892114	t/TJ
2023	NMVOC	1A2a	COKE OVEN GAS	0.000551479	t/TJ
2023	NMVOC	1A2a	DIESEL OIL (S=001%)	0.001000000	t/TJ
2023	NMVOC	1A2a	GASOIL (FOR NON-ROAD USE)	0.000976353	t/TJ
2023	NMVOC	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.001000000	t/TJ
2023	NMVOC	1A2a	LIQUID GAS	0.000171040	t/TJ
2023	NMVOC	1A2a	NATURAL GAS	0.000591262	t/TJ
2023	NMVOC	1A2a	WOOD RESIDUE CHIPS	0.050000000	t/TJ
2023	NMVOC	1A2b	COAL (S=1.0%)	0.004000000	t/TJ
2023	NMVOC	1A2b	COKE (S=1.0%)	0.001000000	t/TJ
2023	NMVOC	1A2b	DIESEL OIL (S=001%)	0.001000000	t/TJ
2023	NMVOC	1A2b	GASOIL (FOR NON-ROAD USE)	0.001000000	t/TJ
2023	NMVOC	1A2b	HEAVY FUEL OIL (S<1%)	0.000609926	t/TJ
2023	NMVOC	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.001057910	t/TJ
2023	NMVOC	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.001000000	t/TJ
2023	NMVOC	1A2b	LIQUID GAS	0.000904436	t/TJ
2023	NMVOC	1A2b	MOTOR GASOLINE (S=0.001%)	0.001000000	t/TJ
2023	NMVOC	1A2b	NATURAL GAS	0.001000000	t/TJ
2023	NMVOC	1A2b	OTHER HEAVY DISTILLATES	0.001000000	t/TJ
2023	NMVOC	1A2c	AROMATIC GAS	0.001000000	t/TJ
2023	NMVOC	1A2c	GASIFIED WASTE	0.004000000	t/TJ
2023	NMVOC	1A2c	GASOIL (FOR NON-ROAD USE)	0.001000000	t/TJ
2023	NMVOC	1A2c	HEAVY FUEL OIL (S<0,1%)	0.001564706	t/TJ
2023	NMVOC	1A2c	HEAVY FUEL OIL (S<1%)	0.000971432	t/TJ
2023	NMVOC	1A2c	HYDROGEN	0.001000000	t/TJ
2023	NMVOC	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000739353	t/TJ
2023	NMVOC	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.000720278	t/TJ
2023	NMVOC	1A2c	LIQUID GAS	0.000330686	t/TJ
2023	NMVOC	1A2c	METHANOL	0.001000000	t/TJ
2023	NMVOC	1A2c	NATURAL GAS	0.000974376	t/TJ
2023	NMVOC	1A2c	OTHER FOSSIL GAS	0.001000000	t/TJ
2023	NMVOC	1A2c	OTHER FUEL	0.003000000	t/TJ
2023	NMVOC	1A2c	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2023	NMVOC	1A2c	OTHER WASTE	0.003000000	t/TJ
2023	NMVOC	1A2c	TALL PITCH AND OIL	0.000960885	t/TJ
2023	NMVOC	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.025878704	t/TJ
2023	NMVOC	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.009713028	t/TJ
2023	NMVOC	1A2d	ANIMAL-BASED FUELS	0.003000000	t/TJ
2023	NMVOC	1A2d	AROMATIC GAS	0.000772903	t/TJ
2023	NMVOC	1A2d	BARK	0.002862037	t/TJ

2023	NMVOC	1A2d	BIO-FUEL OIL	0.001000000	t/TJ
2023	NMVOC	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.001000000	t/TJ
2023	NMVOC	1A2d	BIOLOGICAL SLURRY	0.003000000	t/TJ
2023	NMVOC	1A2d	BLACK LIQUOR	0.000921515	t/TJ
2023	NMVOC	1A2d	CHIPS FROM ROUNDWOOD	0.004563029	t/TJ
2023	NMVOC	1A2d	COAL (S=1.0%)	0.003000000	t/TJ
2023	NMVOC	1A2d	CUTTER CHIPS ETC.	0.004000000	t/TJ
2023	NMVOC	1A2d	DEMOLITION WOOD	0.003000000	t/TJ
2023	NMVOC	1A2d	FOREST RESIDUE CHIPS	0.027238874	t/TJ
2023	NMVOC	1A2d	GASOIL (FOR NON-ROAD USE)	0.001000000	t/TJ
2023	NMVOC	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.001000000	t/TJ
2023	NMVOC	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000748403	t/TJ
2023	NMVOC	1A2d	HEAVY FUEL OIL (S<0,5%)	0.001000000	t/TJ
2023	NMVOC	1A2d	HEAVY FUEL OIL (S<1%)	0.001128974	t/TJ
2023	NMVOC	1A2d	HYDROGEN	0.001000000	t/TJ
2023	NMVOC	1A2d	IMPREGNATED WOOD	0.003000000	t/TJ
2023	NMVOC	1A2d	INDUSTRIAL WASTE	0.009286384	t/TJ
2023	NMVOC	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.001301143	t/TJ
2023	NMVOC	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.000999957	t/TJ
2023	NMVOC	1A2d	LIQUID GAS	0.001000191	t/TJ
2023	NMVOC	1A2d	METHANOL	0.000905143	t/TJ
2023	NMVOC	1A2d	MILLED PEAT	0.002684993	t/TJ
2023	NMVOC	1A2d	NATURAL GAS	0.001000000	t/TJ
2023	NMVOC	1A2d	NATURAL GAS	0.000954413	t/TJ
2023	NMVOC	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003000000	t/TJ
2023	NMVOC	1A2d	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2023	NMVOC	1A2d	OTHER WOOD RESIDUE	0.010000000	t/TJ
2023	NMVOC	1A2d	PAPER	0.010000000	t/TJ
2023	NMVOC	1A2d	PLASTIC WASTE	0.002998941	t/TJ
2023	NMVOC	1A2d	RECOVERED WOOD	0.003000000	t/TJ
2023	NMVOC	1A2d	RECYCLED AND WASTE OILS	0.003000000	t/TJ
2023	NMVOC	1A2d	SAWDUST	0.003964148	t/TJ
2023	NMVOC	1A2d	SOLID RECOVERED FUEL (SRF)	0.010000000	t/TJ
2023	NMVOC	1A2d	TALL PITCH AND OIL	0.001009653	t/TJ
2023	NMVOC	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.010000000	t/TJ
2023	NMVOC	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.050000000	t/TJ
2023	NMVOC	1A2d	WOOD RESIDUE CHIPS	0.025895621	t/TJ
2023	NMVOC	1A2d	WOOD STUMP CHIPS	0.050000000	t/TJ
2023	NMVOC	1A2e	ANIMAL FATS AND OILS	0.004000000	t/TJ
2023	NMVOC	1A2e	ANIMAL-BASED FUELS	0.050000000	t/TJ
2023	NMVOC	1A2e	BIO-FUEL OIL	0.000500000	t/TJ
2023	NMVOC	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.001000000	t/TJ
2023	NMVOC	1A2e	CHIPS FROM ROUNDWOOD	0.004000000	t/TJ
2023	NMVOC	1A2e	COAL (S=1.0%)	0.004000000	t/TJ
2023	NMVOC	1A2e	COKE (S=1.0%)	0.004000000	t/TJ
2023	NMVOC	1A2e	FOREST RESIDUE CHIPS	0.050000000	t/TJ
2023	NMVOC	1A2e	GASOIL (FOR NON-ROAD USE)	0.001040248	t/TJ
2023	NMVOC	1A2e	HEAVY FUEL OIL (S<1%)	0.001000000	t/TJ
2023	NMVOC	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.001279816	t/TJ
2023	NMVOC	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.001000000	t/TJ
2023	NMVOC	1A2e	LIQUID GAS	0.001000000	t/TJ
2023	NMVOC	1A2e	MILLED PEAT	0.003363850	t/TJ
2023	NMVOC	1A2e	MOTOR GASOLINE (S=0.001%)	0.001000000	t/TJ
2023	NMVOC	1A2e	NAPHTHA	0.001000000	t/TJ
2023	NMVOC	1A2e	NATURAL GAS	0.001000000	t/TJ
2023	NMVOC	1A2e	NATURAL GAS	0.001000000	t/TJ

2023	NMVOC	1A2e	OTHER NON-FOSSIL GAS	0.001000000	t/TJ
2023	NMVOC	1A2e	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2023	NMVOC	1A2e	OTHER NON-FOSSIL SOLID	0.009723779	t/TJ
2023	NMVOC	1A2e	PEAT PELLETS AND BRIQUETTES	0.002000000	t/TJ
2023	NMVOC	1A2e	RECOVERED WOOD	0.003000000	t/TJ
2023	NMVOC	1A2e	SAWDUST	0.004000000	t/TJ
2023	NMVOC	1A2e	SOD PEAT	0.050000000	t/TJ
2023	NMVOC	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.048431197	t/TJ
2023	NMVOC	1A2e	WOOD STUMP CHIPS	0.050000000	t/TJ
2023	NMVOC	1A2f	CHIPS FROM ROUNDWOOD	0.050000000	t/TJ
2023	NMVOC	1A2f	COAL (S=1.0%)	0.001411549	t/TJ
2023	NMVOC	1A2f	COKE OVEN GAS	0.001000000	t/TJ
2023	NMVOC	1A2f	DIESEL OIL (S=001%)	0.001000000	t/TJ
2023	NMVOC	1A2f	FOREST RESIDUE CHIPS	0.050000000	t/TJ
2023	NMVOC	1A2f	GASOIL (FOR NON-ROAD USE)	0.001018983	t/TJ
2023	NMVOC	1A2f	HEAVY FUEL OIL (S<0,1%)	0.001000000	t/TJ
2023	NMVOC	1A2f	HEAVY FUEL OIL (S<1%)	0.001000000	t/TJ
2023	NMVOC	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.000896805	t/TJ
2023	NMVOC	1A2f	LIQUID GAS	0.000521681	t/TJ
2023	NMVOC	1A2f	MOTOR GASOLINE (S=0.001%)	0.000979556	t/TJ
2023	NMVOC	1A2f	NATURAL GAS	0.001000000	t/TJ
2023	NMVOC	1A2f	NATURAL GAS	0.000660140	t/TJ
2023	NMVOC	1A2f	OTHER FOSSIL GAS	0.001000000	t/TJ
2023	NMVOC	1A2f	OTHER FOSSIL LIQUID	0.001000000	t/TJ
2023	NMVOC	1A2f	OTHER FUEL	0.003000000	t/TJ
2023	NMVOC	1A2f	OTHER NON-FOSSIL GAS	0.000899515	t/TJ
2023	NMVOC	1A2f	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2023	NMVOC	1A2f	PETROLEUM COKE	0.000252793	t/TJ
2023	NMVOC	1A2f	PLASTIC WASTE	0.002483243	t/TJ
2023	NMVOC	1A2f	RECYCLED AND WASTE OILS	0.001000000	t/TJ
2023	NMVOC	1A2f	RUBBER WASTE	0.000004021	t/TJ
2023	NMVOC	1A2f	SAWDUST	0.004000000	t/TJ
2023	NMVOC	1A2f	SOLID RECOVERED FUEL (SRF)	0.006659980	t/TJ
2023	NMVOC	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.050000000	t/TJ
2023	NMVOC	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.045478565	t/TJ
2023	NMVOC	1A2gvii	LIQUID GAS	0.796035800	t/TJ
2023	NMVOC	1A2gvii	MOTOR GASOLINE (S=0.001%)	1.100273785	t/TJ
2023	NMVOC	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.002102840	t/TJ
2023	NMVOC	1A2gviii	BARK	0.017588441	t/TJ
2023	NMVOC	1A2gviii	BIO PELLETS (NON-WOOD)	0.003000000	t/TJ
2023	NMVOC	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.001000000	t/TJ
2023	NMVOC	1A2gviii	BIOLOGICAL SLURRY	0.003000000	t/TJ
2023	NMVOC	1A2gviii	CHIPS FROM ROUNDWOOD	0.002657657	t/TJ
2023	NMVOC	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.050000000	t/TJ
2023	NMVOC	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.041798624	t/TJ
2023	NMVOC	1A2gviii	CUTTER CHIPS ETC.	0.003744387	t/TJ
2023	NMVOC	1A2gviii	DEMOLITION WOOD	0.000700411	t/TJ
2023	NMVOC	1A2gviii	DIESEL OIL (S=001%)	0.074776205	t/TJ
2023	NMVOC	1A2gviii	FOREST RESIDUE CHIPS	0.050000000	t/TJ
2023	NMVOC	1A2gviii	FOREST RESIDUE CHIPS	0.027863199	t/TJ
2023	NMVOC	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.001065687	t/TJ
2023	NMVOC	1A2gviii	HAZARDOUS WASTE	0.010000000	t/TJ
2023	NMVOC	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.001000000	t/TJ
2023	NMVOC	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.001000000	t/TJ
2023	NMVOC	1A2gviii	HEAVY FUEL OIL (S<1%)	0.002480341	t/TJ
2023	NMVOC	1A2gviii	IMPREGNATED WOOD	0.003000000	t/TJ

2023	NM VOC	1A2gviii	LANDFILL GAS	0.009764028	t/TJ
2023	NM VOC	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.007571225	t/TJ
2023	NM VOC	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.000480482	t/TJ
2023	NM VOC	1A2gviii	LIQUID GAS	0.001416846	t/TJ
2023	NM VOC	1A2gviii	MILLED PEAT	0.002280826	t/TJ
2023	NM VOC	1A2gviii	MUNICIPAL WASTE - unsorted	0.002948177	t/TJ
2023	NM VOC	1A2gviii	NAPHTHA	0.001000000	t/TJ
2023	NM VOC	1A2gviii	NATURAL GAS	0.002197778	t/TJ
2023	NM VOC	1A2gviii	NATURAL GAS	0.014016687	t/TJ
2023	NM VOC	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002888593	t/TJ
2023	NM VOC	1A2gviii	OTHER HEAVY DISTILLATES	0.001000000	t/TJ
2023	NM VOC	1A2gviii	OTHER NON-FOSSIL GAS	0.001930817	t/TJ
2023	NM VOC	1A2gviii	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2023	NM VOC	1A2gviii	OTHER NON-FOSSIL SOLID	0.009974783	t/TJ
2023	NM VOC	1A2gviii	OTHER WASTE	0.003000000	t/TJ
2023	NM VOC	1A2gviii	OTHER WOOD RESIDUE	0.010000000	t/TJ
2023	NM VOC	1A2gviii	PLASTIC WASTE	0.003000000	t/TJ
2023	NM VOC	1A2gviii	RECOVERED WOOD	0.008225236	t/TJ
2023	NM VOC	1A2gviii	RECYCLED AND WASTE OILS	0.001000000	t/TJ
2023	NM VOC	1A2gviii	RENEWABLE DIESEL	0.000270922	t/TJ
2023	NM VOC	1A2gviii	SAWDUST	0.002041449	t/TJ
2023	NM VOC	1A2gviii	SAWDUST AND CUTTER CHIPS	0.050000000	t/TJ
2023	NM VOC	1A2gviii	SOD PEAT	0.007814776	t/TJ
2023	NM VOC	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.002803293	t/TJ
2023	NM VOC	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.012260283	t/TJ
2023	NM VOC	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.060981801	t/TJ
2023	NM VOC	1A2gviii	WOOD RESIDUE CHIPS	0.036290531	t/TJ
2023	NM VOC	1A2gviii	WOOD STUMP CHIPS	0.011882711	t/TJ
2023	NM VOC	1A3ai(i)	KEROSENE (JET FUEL)	0.028482840	t/TJ
2023	NM VOC	1A3aii(i)	AVIATION GASOLINE	0.430834809	t/TJ
2023	NM VOC	1A3aii(i)	KEROSENE (JET FUEL)	0.030001908	t/TJ
2023	NM VOC	1A3bi	DIESEL OIL (S=001%)	0.002887986	t/TJ
2023	NM VOC	1A3bi	MOTOR GASOLINE (S=0.001%)	0.017957817	t/TJ
2023	NM VOC	1A3bi	NATURAL GAS	0.004694791	t/TJ
2023	NM VOC	1A3bii	DIESEL OIL (S=001%)	0.017096500	t/TJ
2023	NM VOC	1A3bii	MOTOR GASOLINE (S=0.001%)	0.092012439	t/TJ
2023	NM VOC	1A3bii	NATURAL GAS	0.007843481	t/TJ
2023	NM VOC	1A3biii	DIESEL OIL (S=001%)	0.002833579	t/TJ
2023	NM VOC	1A3biii	NATURAL GAS	0.011296664	t/TJ
2023	NM VOC	1A3biv	DIESEL OIL (S=001%)	0.507694544	t/TJ
2023	NM VOC	1A3biv	MOTOR GASOLINE (S=0.001%)	0.510841970	t/TJ
2023	NM VOC	1A3c	GASOIL (FOR NON-ROAD USE)	0.093131401	t/TJ
2023	NM VOC	1A3dii	DIESEL OIL (S=001%)	0.081815522	t/TJ
2023	NM VOC	1A3dii	GASOIL (FOR NON-ROAD USE)	0.053539912	t/TJ
2023	NM VOC	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.061577016	t/TJ
2023	NM VOC	1A3dii	MOTOR GASOLINE (S=0.001%)	1.962110203	t/TJ
2023	NM VOC	1A3ei	NATURAL GAS	0.001000000	t/TJ
2023	NM VOC	1A4ai	BIO-FUEL OIL	0.001000000	t/TJ
2023	NM VOC	1A4ai	FOREST WOODFUEL	0.003000000	t/TJ
2023	NM VOC	1A4ai	GASOIL (FOR NON-ROAD USE)	0.001000000	t/TJ
2023	NM VOC	1A4ai	HEAVY FUEL OIL (S<1%)	0.005000000	t/TJ
2023	NM VOC	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.004987694	t/TJ
2023	NM VOC	1A4ai	NAPHTHA	0.001000000	t/TJ
2023	NM VOC	1A4ai	NATURAL GAS	0.001000000	t/TJ
2023	NM VOC	1A4ai	NATURAL GAS	0.004706903	t/TJ
2023	NM VOC	1A4ai	SOD PEAT	0.164705882	t/TJ

2023	NM VOC	1A4aii	GASOIL (FOR NON-ROAD USE)	0.042051922	t/TJ
2023	NM VOC	1A4aii	MOTOR GASOLINE (S=0.001%)	0.437066011	t/TJ
2023	NM VOC	1A4bi	FOREST WOODFUEL	0.388658014	t/TJ
2023	NM VOC	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.005000000	t/TJ
2023	NM VOC	1A4bi	LIQUID GAS	0.005000000	t/TJ
2023	NM VOC	1A4bi	NATURAL GAS	0.005000000	t/TJ
2023	NM VOC	1A4bi	PARAFFIN	0.005000000	t/TJ
2023	NM VOC	1A4bi	SOD PEAT	0.200000000	t/TJ
2023	NM VOC	1A4bii	GASOIL (FOR NON-ROAD USE)	0.166037444	t/TJ
2023	NM VOC	1A4bii	MOTOR GASOLINE (S=0.001%)	1.264298992	t/TJ
2023	NM VOC	1A4ci	CHIPS FROM ROUNDWOOD	0.004000000	t/TJ
2023	NM VOC	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.050000000	t/TJ
2023	NM VOC	1A4ci	COAL (S=1.0%)	0.004000000	t/TJ
2023	NM VOC	1A4ci	FOREST RESIDUE CHIPS	0.050000000	t/TJ
2023	NM VOC	1A4ci	FOREST WOODFUEL	0.003000000	t/TJ
2023	NM VOC	1A4ci	HEAVY FUEL OIL (S<1%)	0.005000000	t/TJ
2023	NM VOC	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.005000000	t/TJ
2023	NM VOC	1A4ci	LIQUID GAS	0.005000000	t/TJ
2023	NM VOC	1A4ci	NATURAL GAS	0.005000000	t/TJ
2023	NM VOC	1A4ci	OTHER NON-FOSSIL SOLID	0.010000000	t/TJ
2023	NM VOC	1A4ci	RECOVERED WOOD	0.003000000	t/TJ
2023	NM VOC	1A4ci	SOD PEAT	0.196492976	t/TJ
2023	NM VOC	1A4cii	GASOIL (FOR NON-ROAD USE)	0.037267415	t/TJ
2023	NM VOC	1A4cii	MOTOR GASOLINE (S=0.001%)	2.689266776	t/TJ
2023	NM VOC	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.058739115	t/TJ
2023	NM VOC	1A5a	AVIATION GASOLINE	0.312500000	t/TJ
2023	NM VOC	1A5a	FOREST WOODFUEL	0.010000000	t/TJ
2023	NM VOC	1A5a	KEROSENE (JET FUEL)	0.023222061	t/TJ
2023	NM VOC	1A5a	LANDFILL GAS	0.005000000	t/TJ
2023	NM VOC	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.009767605	t/TJ
2023	NM VOC	1A5a	LIQUID GAS	0.005000000	t/TJ
2023	NM VOC	1A5a	NATURAL GAS	0.005000000	t/TJ
2023	NM VOC	1A5a	OTHER PETROLEUM PRODUCTS	0.005000000	t/TJ

SO2 Implied emission factors in Finnish air pollutant inventory for 2023

2023	SO2	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.009115475	t/TJ
2023	SO2	1A1a	ANIMAL-BASED FUELS	0.081913478	t/TJ
2023	SO2	1A1a	ANTHRACITE	0.071085222	t/TJ
2023	SO2	1A1a	ASPHALTENE	0.034070690	t/TJ
2023	SO2	1A1a	BARK	0.006758765	t/TJ
2023	SO2	1A1a	BIO PELLETS (NON-WOOD)	0.005513527	t/TJ
2023	SO2	1A1a	BIO PYROLYSIS OIL	0.002870812	t/TJ
2023	SO2	1A1a	BIO-FUEL OIL	0.009860072	t/TJ
2023	SO2	1A1a	BIOLOGICAL SLURRY	0.128152333	t/TJ
2023	SO2	1A1a	BLAST FURNACE GAS	0.000052318	t/TJ
2023	SO2	1A1a	CHIPS FROM ROUNDWOOD	0.005363927	t/TJ
2023	SO2	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.020964006	t/TJ
2023	SO2	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.010645853	t/TJ
2023	SO2	1A1a	COAL (S=1.0%)	0.169485312	t/TJ
2023	SO2	1A1a	COKE OVEN GAS	0.224222036	t/TJ
2023	SO2	1A1a	CUTTER CHIPS ETC.	0.002044925	t/TJ
2023	SO2	1A1a	DEINKING WASTE	0.004166439	t/TJ
2023	SO2	1A1a	DEMOLITION WOOD	0.026447107	t/TJ
2023	SO2	1A1a	DIESEL OIL (S=001%)	0.155391848	t/TJ
2023	SO2	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.014801638	t/TJ

2023	SO2	1A1a	FOREST RESIDUE CHIPS	0.019243395	t/TJ
2023	SO2	1A1a	FOREST RESIDUE CHIPS	0.006687107	t/TJ
2023	SO2	1A1a	GASOIL (FOR NON-ROAD USE)	0.014417109	t/TJ
2023	SO2	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.058100908	t/TJ
2023	SO2	1A1a	HEAVY FUEL OIL (S<0,1%)	0.048937994	t/TJ
2023	SO2	1A1a	HEAVY FUEL OIL (S<0,5%)	0.185924875	t/TJ
2023	SO2	1A1a	HEAVY FUEL OIL (S<1%)	0.093834259	t/TJ
2023	SO2	1A1a	HYDROGEN	0.000000202	t/TJ
2023	SO2	1A1a	IMPREGNATED WOOD	0.033747239	t/TJ
2023	SO2	1A1a	INDUSTRIAL WASTE	0.007166432	t/TJ
2023	SO2	1A1a	LANDFILL GAS	0.013993011	t/TJ
2023	SO2	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.070836573	t/TJ
2023	SO2	1A1a	LIGNIN	0.011110318	t/TJ
2023	SO2	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.000009000	t/TJ
2023	SO2	1A1a	LIQUID GAS	0.000194508	t/TJ
2023	SO2	1A1a	MILLED PEAT	0.059894306	t/TJ
2023	SO2	1A1a	MOTOR GASOLINE (S=0.001%)	0.043000000	t/TJ
2023	SO2	1A1a	MUNICIPAL WASTE - unsorted	0.002335418	t/TJ
2023	SO2	1A1a	NAPHTHA	0.019607843	t/TJ
2023	SO2	1A1a	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A1a	NATURAL GAS	0.000083497	t/TJ
2023	SO2	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.005333056	t/TJ
2023	SO2	1A1a	OTHER FOSSIL GAS	0.000007813	t/TJ
2023	SO2	1A1a	OTHER FOSSIL SOLID	0.009009802	t/TJ
2023	SO2	1A1a	OTHER FUEL	0.000568662	t/TJ
2023	SO2	1A1a	OTHER NON-FOSSIL GAS	0.010000000	t/TJ
2023	SO2	1A1a	OTHER NON-FOSSIL SOLID	0.028898294	t/TJ
2023	SO2	1A1a	OTHER NON-FOSSIL SOLID	0.053970256	t/TJ
2023	SO2	1A1a	OTHER WASTE	0.013491047	t/TJ
2023	SO2	1A1a	OTHER WOOD RESIDUE	0.006306656	t/TJ
2023	SO2	1A1a	PAPER	0.006863982	t/TJ
2023	SO2	1A1a	PEAT PELLETS AND BRIQUETTES	0.215500394	t/TJ
2023	SO2	1A1a	PLASTIC WASTE	0.027888681	t/TJ
2023	SO2	1A1a	RECOVERED FUEL (REF 2)	0.130000000	t/TJ
2023	SO2	1A1a	RECOVERED WOOD	0.031378843	t/TJ
2023	SO2	1A1a	RECYCLED AND WASTE OILS	0.106905933	t/TJ
2023	SO2	1A1a	RENEWABLE DIESEL	0.000470000	t/TJ
2023	SO2	1A1a	SAWDUST	0.006932907	t/TJ
2023	SO2	1A1a	SOD PEAT	0.147144194	t/TJ
2023	SO2	1A1a	SOLID RECOVERED FUEL (SRF)	0.017498557	t/TJ
2023	SO2	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003205613	t/TJ
2023	SO2	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.003208607	t/TJ
2023	SO2	1A1a	WOOD RESIDUE CHIPS	0.006411361	t/TJ
2023	SO2	1A1a	WOOD STUMP CHIPS	0.008364174	t/TJ
2023	SO2	1A1b	COKE (S=1.0%)	0.004419622	t/TJ
2023	SO2	1A1b	HEAVY FUEL OIL (S<1%)	0.511602766	t/TJ
2023	SO2	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.041249134	t/TJ
2023	SO2	1A1b	LIQUID GAS	0.000010065	t/TJ
2023	SO2	1A1b	NATURAL GAS	0.068077242	t/TJ
2023	SO2	1A1b	NATURAL GAS	0.720449982	t/TJ
2023	SO2	1A1b	OTHER FOSSIL LIQUID	0.012096277	t/TJ
2023	SO2	1A1b	OTHER MEDIUM DISTILLATES	0.001005833	t/TJ
2023	SO2	1A1b	OTHER NON-FOSSIL GAS	0.000104369	t/TJ
2023	SO2	1A1b	PETROLEUM COKE	0.030881964	t/TJ
2023	SO2	1A1b	REFINERY GAS	0.002422310	t/TJ
2023	SO2	1A1b	REFINERY GASES	0.000129668	t/TJ

2023	SO2	1A1b	SULPHUR CONCENTRATE	0.165556451	t/TJ
2023	SO2	1A2a	BLAST FURNACE GAS	0.000018838	t/TJ
2023	SO2	1A2a	COKE (S=1.0%)	0.214009189	t/TJ
2023	SO2	1A2a	COKE OVEN GAS	0.056305520	t/TJ
2023	SO2	1A2a	DIESEL OIL (S=001%)	0.000470000	t/TJ
2023	SO2	1A2a	GASOIL (FOR NON-ROAD USE)	0.290626961	t/TJ
2023	SO2	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.068912312	t/TJ
2023	SO2	1A2a	LIQUID GAS	0.000003320	t/TJ
2023	SO2	1A2a	NATURAL GAS	0.000102665	t/TJ
2023	SO2	1A2a	OTHER FOSSIL SOLID	2.000000000	t/TJ
2023	SO2	1A2a	WOOD RESIDUE CHIPS	0.019963702	t/TJ
2023	SO2	1A2b	COAL (S=1.0%)	10.486861992	t/TJ
2023	SO2	1A2b	COKE (S=1.0%)	5.511811056	t/TJ
2023	SO2	1A2b	DIESEL OIL (S=001%)	0.000470000	t/TJ
2023	SO2	1A2b	GASOIL (FOR NON-ROAD USE)	0.043000000	t/TJ
2023	SO2	1A2b	HEAVY FUEL OIL (S<1%)	1.593396231	t/TJ
2023	SO2	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.067713648	t/TJ
2023	SO2	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.000009000	t/TJ
2023	SO2	1A2b	LIQUID GAS	0.000979046	t/TJ
2023	SO2	1A2b	MOTOR GASOLINE (S=0.001%)	0.043000000	t/TJ
2023	SO2	1A2b	NATURAL GAS	0.000043127	t/TJ
2023	SO2	1A2b	OTHER HEAVY DISTILLATES	5.576371069	t/TJ
2023	SO2	1A2c	AROMATIC GAS	0.036497119	t/TJ
2023	SO2	1A2c	DIESEL OIL (S=001%)	0.000470000	t/TJ
2023	SO2	1A2c	GASIFIED WASTE	0.000146205	t/TJ
2023	SO2	1A2c	GASOIL (FOR NON-ROAD USE)	0.025815613	t/TJ
2023	SO2	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.187094771	t/TJ
2023	SO2	1A2c	HEAVY FUEL OIL (S<0,1%)	0.067952941	t/TJ
2023	SO2	1A2c	HEAVY FUEL OIL (S<1%)	0.617641535	t/TJ
2023	SO2	1A2c	HYDROGEN	0.000000200	t/TJ
2023	SO2	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.201599282	t/TJ
2023	SO2	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.000061655	t/TJ
2023	SO2	1A2c	LIQUID GAS	0.000003923	t/TJ
2023	SO2	1A2c	METHANOL	0.002554798	t/TJ
2023	SO2	1A2c	NATURAL GAS	0.000020620	t/TJ
2023	SO2	1A2c	OTHER FOSSIL GAS	0.003700000	t/TJ
2023	SO2	1A2c	OTHER FOSSIL LIQUID	0.022284035	t/TJ
2023	SO2	1A2c	OTHER FUEL	0.220953971	t/TJ
2023	SO2	1A2c	OTHER NON-FOSSIL SOLID	0.002988827	t/TJ
2023	SO2	1A2c	OTHER WASTE	0.200000000	t/TJ
2023	SO2	1A2c	RENEWABLE DIESEL	0.000470000	t/TJ
2023	SO2	1A2c	TALL PITCH AND OIL	0.022928045	t/TJ
2023	SO2	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.010000000	t/TJ
2023	SO2	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.009199621	t/TJ
2023	SO2	1A2d	ANIMAL-BASED FUELS	0.010349174	t/TJ
2023	SO2	1A2d	AROMATIC GAS	0.279919090	t/TJ
2023	SO2	1A2d	BARK	0.013908406	t/TJ
2023	SO2	1A2d	BIO-FUEL OIL	0.011139680	t/TJ
2023	SO2	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.000479819	t/TJ
2023	SO2	1A2d	BIOLOGICAL SLURRY	0.043007647	t/TJ
2023	SO2	1A2d	BLACK LIQUOR	0.002805354	t/TJ
2023	SO2	1A2d	CHIPS FROM ROUNDWOOD	0.007357585	t/TJ
2023	SO2	1A2d	COAL (S=1.0%)	0.075040923	t/TJ
2023	SO2	1A2d	CUTTER CHIPS ETC.	0.000546025	t/TJ
2023	SO2	1A2d	DEMOLITION WOOD	0.013798899	t/TJ
2023	SO2	1A2d	FOREST RESIDUE CHIPS	0.006780217	t/TJ

2023	SO2	1A2d	GASOIL (FOR NON-ROAD USE)	0.655708800	t/TJ
2023	SO2	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.024977689	t/TJ
2023	SO2	1A2d	HEAVY FUEL OIL (S<0,1%)	0.032167163	t/TJ
2023	SO2	1A2d	HEAVY FUEL OIL (S<0,5%)	0.178240738	t/TJ
2023	SO2	1A2d	HEAVY FUEL OIL (S<1%)	0.029496532	t/TJ
2023	SO2	1A2d	HYDROGEN	0.000000000	t/TJ
2023	SO2	1A2d	IMPREGNATED WOOD	0.013798899	t/TJ
2023	SO2	1A2d	INDUSTRIAL WASTE	0.138404127	t/TJ
2023	SO2	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.412206248	t/TJ
2023	SO2	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.000008999	t/TJ
2023	SO2	1A2d	LIQUID GAS	0.000019038	t/TJ
2023	SO2	1A2d	METHANOL	0.143426605	t/TJ
2023	SO2	1A2d	MILLED PEAT	0.037018156	t/TJ
2023	SO2	1A2d	NATURAL GAS	0.000032130	t/TJ
2023	SO2	1A2d	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.020000000	t/TJ
2023	SO2	1A2d	OTHER NON-FOSSIL GAS	0.010000000	t/TJ
2023	SO2	1A2d	OTHER WOOD RESIDUE	0.000712084	t/TJ
2023	SO2	1A2d	PAPER	0.002827380	t/TJ
2023	SO2	1A2d	PLASTIC WASTE	0.043062389	t/TJ
2023	SO2	1A2d	RECOVERED WOOD	0.016869634	t/TJ
2023	SO2	1A2d	RECYCLED AND WASTE OILS	0.013798899	t/TJ
2023	SO2	1A2d	SAWDUST	0.007375081	t/TJ
2023	SO2	1A2d	SOLID RECOVERED FUEL (SRF)	0.005560830	t/TJ
2023	SO2	1A2d	TALL PITCH AND OIL	0.002698720	t/TJ
2023	SO2	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.010748006	t/TJ
2023	SO2	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000479819	t/TJ
2023	SO2	1A2d	WOOD RESIDUE CHIPS	0.011648288	t/TJ
2023	SO2	1A2d	WOOD STUMP CHIPS	0.002759780	t/TJ
2023	SO2	1A2e	ANIMAL FATS AND OILS	0.026379675	t/TJ
2023	SO2	1A2e	ANIMAL-BASED FUELS	0.150000000	t/TJ
2023	SO2	1A2e	BIO-FUEL OIL	0.058977726	t/TJ
2023	SO2	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.000287736	t/TJ
2023	SO2	1A2e	CHIPS FROM ROUNDWOOD	0.017458825	t/TJ
2023	SO2	1A2e	COAL (S=1.0%)	0.327024312	t/TJ
2023	SO2	1A2e	COKE (S=1.0%)	0.000964203	t/TJ
2023	SO2	1A2e	FOREST RESIDUE CHIPS	0.013963335	t/TJ
2023	SO2	1A2e	GASOIL (FOR NON-ROAD USE)	0.040067435	t/TJ
2023	SO2	1A2e	HEAVY FUEL OIL (S<1%)	0.357151800	t/TJ
2023	SO2	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.045054330	t/TJ
2023	SO2	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.000003447	t/TJ
2023	SO2	1A2e	LIQUID GAS	0.000513730	t/TJ
2023	SO2	1A2e	MILLED PEAT	0.103035606	t/TJ
2023	SO2	1A2e	MOTOR GASOLINE (S=0.001%)	0.043000000	t/TJ
2023	SO2	1A2e	NAPHTHA	0.043000000	t/TJ
2023	SO2	1A2e	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A2e	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A2e	OTHER NON-FOSSIL GAS	0.010000000	t/TJ
2023	SO2	1A2e	OTHER NON-FOSSIL SOLID	0.011755341	t/TJ
2023	SO2	1A2e	OTHER NON-FOSSIL SOLID	0.016555320	t/TJ
2023	SO2	1A2e	PEAT PELLETS AND BRIQUETTES	0.057745444	t/TJ
2023	SO2	1A2e	RECOVERED WOOD	0.141650163	t/TJ
2023	SO2	1A2e	SAWDUST	0.020000000	t/TJ
2023	SO2	1A2e	SOD PEAT	0.078803958	t/TJ
2023	SO2	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.008364089	t/TJ
2023	SO2	1A2e	WOOD STUMP CHIPS	0.007604403	t/TJ

2023	SO2	1A2f	CHIPS FROM ROUNDWOOD	0.020290835	t/TJ
2023	SO2	1A2f	COAL (S=1.0%)	0.135928912	t/TJ
2023	SO2	1A2f	COKE (S=1.0%)	0.597585570	t/TJ
2023	SO2	1A2f	COKE OVEN GAS	0.087826490	t/TJ
2023	SO2	1A2f	DIESEL OIL (S=001%)	0.001375009	t/TJ
2023	SO2	1A2f	FOREST RESIDUE CHIPS	0.020290835	t/TJ
2023	SO2	1A2f	GASOIL (FOR NON-ROAD USE)	0.042274716	t/TJ
2023	SO2	1A2f	HEAVY FUEL OIL (S<0,1%)	0.428472142	t/TJ
2023	SO2	1A2f	HEAVY FUEL OIL (S<1%)	0.335936637	t/TJ
2023	SO2	1A2f	INDUSTRIAL WASTE	0.003442391	t/TJ
2023	SO2	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.033716154	t/TJ
2023	SO2	1A2f	LIQUID GAS	0.041084337	t/TJ
2023	SO2	1A2f	MOTOR GASOLINE (S=0.001%)	0.038227457	t/TJ
2023	SO2	1A2f	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A2f	NATURAL GAS	0.006013343	t/TJ
2023	SO2	1A2f	OTHER FOSSIL GAS	0.001514666	t/TJ
2023	SO2	1A2f	OTHER FOSSIL LIQUID	0.057352209	t/TJ
2023	SO2	1A2f	OTHER FUEL	0.009309918	t/TJ
2023	SO2	1A2f	OTHER NON-FOSSIL GAS	0.010000000	t/TJ
2023	SO2	1A2f	OTHER NON-FOSSIL SOLID	0.022219479	t/TJ
2023	SO2	1A2f	OTHER WASTE	0.001027579	t/TJ
2023	SO2	1A2f	PETROLEUM COKE	0.015210519	t/TJ
2023	SO2	1A2f	PLASTIC WASTE	0.008608856	t/TJ
2023	SO2	1A2f	RECYCLED AND WASTE OILS	0.198830705	t/TJ
2023	SO2	1A2f	REED CANARY GRASS	0.000154137	t/TJ
2023	SO2	1A2f	RUBBER WASTE	0.004969880	t/TJ
2023	SO2	1A2f	SAWDUST	0.014812986	t/TJ
2023	SO2	1A2f	SOLID RECOVERED FUEL (SRF)	0.007634342	t/TJ
2023	SO2	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.007406493	t/TJ
2023	SO2	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000289995	t/TJ
2023	SO2	1A2gvii	LIQUID GAS	0.000032544	t/TJ
2023	SO2	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000122547	t/TJ
2023	SO2	1A2gviii	BARK	0.020869865	t/TJ
2023	SO2	1A2gviii	BIO PELLETS (NON-WOOD)	0.003501279	t/TJ
2023	SO2	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.046302933	t/TJ
2023	SO2	1A2gviii	BIOLOGICAL SLURRY	0.076657120	t/TJ
2023	SO2	1A2gviii	CHIPS FROM ROUNDWOOD	0.001277229	t/TJ
2023	SO2	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.007665712	t/TJ
2023	SO2	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.012305540	t/TJ
2023	SO2	1A2gviii	CUTTER CHIPS ETC.	0.372175852	t/TJ
2023	SO2	1A2gviii	DEMOLITION WOOD	0.000723925	t/TJ
2023	SO2	1A2gviii	DIESEL OIL (S=001%)	0.084754859	t/TJ
2023	SO2	1A2gviii	FOREST RESIDUE CHIPS	0.020000000	t/TJ
2023	SO2	1A2gviii	FOREST RESIDUE CHIPS	0.003515780	t/TJ
2023	SO2	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.037415350	t/TJ
2023	SO2	1A2gviii	HAZARDOUS WASTE	0.004148846	t/TJ
2023	SO2	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.410881317	t/TJ
2023	SO2	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.438000000	t/TJ
2023	SO2	1A2gviii	HEAVY FUEL OIL (S<1%)	0.343428849	t/TJ
2023	SO2	1A2gviii	IMPREGNATED WOOD	0.002501531	t/TJ
2023	SO2	1A2gviii	LANDFILL GAS	0.017000000	t/TJ
2023	SO2	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.038498732	t/TJ
2023	SO2	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.000008787	t/TJ
2023	SO2	1A2gviii	LIQUID GAS	0.000121041	t/TJ
2023	SO2	1A2gviii	MILLED PEAT	0.027427746	t/TJ

2023	SO2	1A2gviii	MUNICIPAL WASTE - unsorted	0.003675122	t/TJ
2023	SO2	1A2gviii	NAPHTHA	0.015031092	t/TJ
2023	SO2	1A2gviii	NATURAL GAS	0.002500209	t/TJ
2023	SO2	1A2gviii	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.005210481	t/TJ
2023	SO2	1A2gviii	OTHER HEAVY DISTILLATES	0.048895591	t/TJ
2023	SO2	1A2gviii	OTHER NON-FOSSIL GAS	0.010357676	t/TJ
2023	SO2	1A2gviii	OTHER NON-FOSSIL SOLID	0.012095718	t/TJ
2023	SO2	1A2gviii	OTHER NON-FOSSIL SOLID	0.051863004	t/TJ
2023	SO2	1A2gviii	OTHER WASTE	0.002749960	t/TJ
2023	SO2	1A2gviii	OTHER WOOD RESIDUE	0.022050403	t/TJ
2023	SO2	1A2gviii	PLASTIC WASTE	0.002208885	t/TJ
2023	SO2	1A2gviii	RECOVERED WOOD	0.020827243	t/TJ
2023	SO2	1A2gviii	RECYCLED AND WASTE OILS	0.023948309	t/TJ
2023	SO2	1A2gviii	RENEWABLE DIESEL	0.001910586	t/TJ
2023	SO2	1A2gviii	SAWDUST	0.002526077	t/TJ
2023	SO2	1A2gviii	SAWDUST AND CUTTER CHIPS	0.020000000	t/TJ
2023	SO2	1A2gviii	SOD PEAT	0.029658454	t/TJ
2023	SO2	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000701984	t/TJ
2023	SO2	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.025244117	t/TJ
2023	SO2	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.007436679	t/TJ
2023	SO2	1A2gviii	WOOD RESIDUE CHIPS	0.014547934	t/TJ
2023	SO2	1A2gviii	WOOD STUMP CHIPS	0.000358345	t/TJ
2023	SO2	1A3ai(i)	KEROSENE (JET FUEL)	0.019400000	t/TJ
2023	SO2	1A3aii(i)	AVIATION GASOLINE	0.000920000	t/TJ
2023	SO2	1A3aii(i)	KEROSENE (JET FUEL)	0.019399538	t/TJ
2023	SO2	1A3bi	DIESEL OIL (S=001%)	0.000288783	t/TJ
2023	SO2	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000366600	t/TJ
2023	SO2	1A3bi	NATURAL GAS	0.000060242	t/TJ
2023	SO2	1A3bii	DIESEL OIL (S=001%)	0.000288783	t/TJ
2023	SO2	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A3bii	NATURAL GAS	0.000060242	t/TJ
2023	SO2	1A3biii	DIESEL OIL (S=001%)	0.000288783	t/TJ
2023	SO2	1A3biii	NATURAL GAS	0.000060242	t/TJ
2023	SO2	1A3biv	DIESEL OIL (S=001%)	0.000280241	t/TJ
2023	SO2	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A3c	GASOIL (FOR NON-ROAD USE)	0.000289995	t/TJ
2023	SO2	1A3dii	DIESEL OIL (S=001%)	0.000288816	t/TJ
2023	SO2	1A3dii	GASOIL (FOR NON-ROAD USE)	0.013622827	t/TJ
2023	SO2	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.044014721	t/TJ
2023	SO2	1A3dii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A3ei	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A4ai	BIO-FUEL OIL	0.043000000	t/TJ
2023	SO2	1A4ai	FOREST WOODFUEL	0.005000000	t/TJ
2023	SO2	1A4ai	GASOIL (FOR NON-ROAD USE)	0.013623334	t/TJ
2023	SO2	1A4ai	HEAVY FUEL OIL (S<1%)	0.438000000	t/TJ
2023	SO2	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.043335605	t/TJ
2023	SO2	1A4ai	NAPHTHA	0.000457568	t/TJ
2023	SO2	1A4ai	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A4ai	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A4ai	SOD PEAT	0.180000000	t/TJ
2023	SO2	1A4aii	GASOIL (FOR NON-ROAD USE)	0.000289995	t/TJ
2023	SO2	1A4aii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A4bi	FOREST WOODFUEL	0.005000000	t/TJ
2023	SO2	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.043000000	t/TJ
2023	SO2	1A4bi	LIQUID GAS	0.000009000	t/TJ

2023	SO2	1A4bi	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A4bi	PARAFFIN	0.009300000	t/TJ
2023	SO2	1A4bi	SOD PEAT	0.180000000	t/TJ
2023	SO2	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000289995	t/TJ
2023	SO2	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A4ci	CHIPS FROM ROUNDWOOD	0.032054508	t/TJ
2023	SO2	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.020000000	t/TJ
2023	SO2	1A4ci	COAL (S=1.0%)	0.627000000	t/TJ
2023	SO2	1A4ci	FOREST RESIDUE CHIPS	0.020000000	t/TJ
2023	SO2	1A4ci	FOREST WOODFUEL	0.005000000	t/TJ
2023	SO2	1A4ci	HEAVY FUEL OIL (S<1%)	0.438000000	t/TJ
2023	SO2	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.043000000	t/TJ
2023	SO2	1A4ci	LIQUID GAS	0.000009000	t/TJ
2023	SO2	1A4ci	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A4ci	OTHER NON-FOSSIL SOLID	0.001373417	t/TJ
2023	SO2	1A4ci	RECOVERED WOOD	0.168470844	t/TJ
2023	SO2	1A4ci	SOD PEAT	0.178649467	t/TJ
2023	SO2	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000289995	t/TJ
2023	SO2	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000368664	t/TJ
2023	SO2	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000289995	t/TJ
2023	SO2	1A5a	FOREST WOODFUEL	0.020000000	t/TJ
2023	SO2	1A5a	KEROSENE (JET FUEL)	0.018384132	t/TJ
2023	SO2	1A5a	LANDFILL GAS	0.017000000	t/TJ
2023	SO2	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.046033119	t/TJ
2023	SO2	1A5a	LIQUID GAS	0.000009000	t/TJ
2023	SO2	1A5a	NATURAL GAS	0.000040000	t/TJ
2023	SO2	1A5a	OTHER PETROLEUM PRODUCTS	0.100000000	t/TJ

NH3 Implied emission factors in Finnish air pollutant inventory for 2023

2023	NH3	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000193330	t/TJ
2023	NH3	1A2gvii	LIQUID GAS	0.000217391	t/TJ
2023	NH3	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000108113	t/TJ
2023	NH3	1A3bi	DIESEL OIL (S=001%)	0.002410757	t/TJ
2023	NH3	1A3bi	MOTOR GASOLINE (S=0.001%)	0.011814257	t/TJ
2023	NH3	1A3bi	NATURAL GAS	0.012611474	t/TJ
2023	NH3	1A3bii	DIESEL OIL (S=001%)	0.002426806	t/TJ
2023	NH3	1A3bii	MOTOR GASOLINE (S=0.001%)	0.010340817	t/TJ
2023	NH3	1A3bii	NATURAL GAS	0.007826385	t/TJ
2023	NH3	1A3biii	DIESEL OIL (S=001%)	0.000621067	t/TJ
2023	NH3	1A3biii	NATURAL GAS	0.001499095	t/TJ
2023	NH3	1A3biv	DIESEL OIL (S=001%)	0.000282795	t/TJ
2023	NH3	1A3biv	MOTOR GASOLINE (S=0.001%)	0.001460381	t/TJ
2023	NH3	1A3c	GASOIL (FOR NON-ROAD USE)	0.000169164	t/TJ
2023	NH3	1A3dii	DIESEL OIL (S=001%)	0.000226660	t/TJ
2023	NH3	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000185757	t/TJ
2023	NH3	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000194557	t/TJ
2023	NH3	1A3dii	MOTOR GASOLINE (S=0.001%)	0.000127033	t/TJ
2023	NH3	1A4ai	FOREST WOODFUEL	0.001672269	t/TJ
2023	NH3	1A4aii	GASOIL (FOR NON-ROAD USE)	0.000193330	t/TJ
2023	NH3	1A4aii	MOTOR GASOLINE (S=0.001%)	0.000098641	t/TJ
2023	NH3	1A4bi	FOREST WOODFUEL	0.021400599	t/TJ
2023	NH3	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000193330	t/TJ
2023	NH3	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000099709	t/TJ
2023	NH3	1A4ci	FOREST WOODFUEL	0.001700900	t/TJ
2023	NH3	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000193330	t/TJ

2023	NH3	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000081312	t/TJ
2023	NH3	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000190913	t/TJ
2023	NH3	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000020691	t/TJ

PM2.5 Implied emission factors in Finnish air pollutant inventory for 2023

2023	PM2.5	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000070806	t/TJ
2023	PM2.5	1A1a	ANIMAL-BASED FUELS	0.000026746	t/TJ
2023	PM2.5	1A1a	ASPHALTENE	0.000067043	t/TJ
2023	PM2.5	1A1a	BARK	0.000582288	t/TJ
2023	PM2.5	1A1a	BIO PELLETS (NON-WOOD)	0.000022415	t/TJ
2023	PM2.5	1A1a	BIO PYROLYSIS OIL	0.000229665	t/TJ
2023	PM2.5	1A1a	BIO-FUEL OIL	0.000033385	t/TJ
2023	PM2.5	1A1a	BIOLOGICAL SLURRY	0.002373132	t/TJ
2023	PM2.5	1A1a	CHIPS FROM ROUNDWOOD	0.000668634	t/TJ
2023	PM2.5	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000829803	t/TJ
2023	PM2.5	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000526028	t/TJ
2023	PM2.5	1A1a	COAL (S=1.0%)	0.002032917	t/TJ
2023	PM2.5	1A1a	CUTTER CHIPS ETC.	0.001347394	t/TJ
2023	PM2.5	1A1a	DEINKING WASTE	0.000019608	t/TJ
2023	PM2.5	1A1a	DEMOLITION WOOD	0.000354072	t/TJ
2023	PM2.5	1A1a	DIESEL OIL (S=001%)	0.000840000	t/TJ
2023	PM2.5	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.012292247	t/TJ
2023	PM2.5	1A1a	FOREST RESIDUE CHIPS	0.000355820	t/TJ
2023	PM2.5	1A1a	FOREST RESIDUE CHIPS	0.008026702	t/TJ
2023	PM2.5	1A1a	GASOIL (FOR NON-ROAD USE)	0.000309121	t/TJ
2023	PM2.5	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.017636380	t/TJ
2023	PM2.5	1A1a	HEAVY FUEL OIL (S<0,1%)	0.001828353	t/TJ
2023	PM2.5	1A1a	HEAVY FUEL OIL (S<0,5%)	0.003967502	t/TJ
2023	PM2.5	1A1a	HEAVY FUEL OIL (S<1%)	0.013715030	t/TJ
2023	PM2.5	1A1a	IMPREGNATED WOOD	0.000287194	t/TJ
2023	PM2.5	1A1a	INDUSTRIAL WASTE	0.000094301	t/TJ
2023	PM2.5	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.001589260	t/TJ
2023	PM2.5	1A1a	LIGNIN	0.000422740	t/TJ
2023	PM2.5	1A1a	MILLED PEAT	0.000569797	t/TJ
2023	PM2.5	1A1a	MOTOR GASOLINE (S=0.001%)	0.000840000	t/TJ
2023	PM2.5	1A1a	MUNICIPAL WASTE - unsorted	0.000030461	t/TJ
2023	PM2.5	1A1a	NAPHTHA	0.000941176	t/TJ
2023	PM2.5	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000758709	t/TJ
2023	PM2.5	1A1a	OTHER FOSSIL SOLID	0.000088668	t/TJ
2023	PM2.5	1A1a	OTHER FUEL	0.000218668	t/TJ
2023	PM2.5	1A1a	OTHER NON-FOSSIL SOLID	0.000529307	t/TJ
2023	PM2.5	1A1a	OTHER NON-FOSSIL SOLID	0.000732078	t/TJ
2023	PM2.5	1A1a	OTHER WASTE	0.000060206	t/TJ
2023	PM2.5	1A1a	OTHER WOOD RESIDUE	0.000300660	t/TJ
2023	PM2.5	1A1a	PAPER	0.000022049	t/TJ
2023	PM2.5	1A1a	PEAT PELLETS AND BRIQUETTES	0.001630101	t/TJ
2023	PM2.5	1A1a	PLASTIC WASTE	0.003333330	t/TJ
2023	PM2.5	1A1a	RECOVERED FUEL (REF 2)	0.010000000	t/TJ
2023	PM2.5	1A1a	RECOVERED WOOD	0.000298358	t/TJ
2023	PM2.5	1A1a	RECYCLED AND WASTE OILS	0.000070100	t/TJ
2023	PM2.5	1A1a	RENEWABLE DIESEL	0.001649485	t/TJ
2023	PM2.5	1A1a	SAWDUST	0.000612871	t/TJ
2023	PM2.5	1A1a	SOD PEAT	0.009361042	t/TJ
2023	PM2.5	1A1a	SOLID RECOVERED FUEL (SRF)	0.000141529	t/TJ
2023	PM2.5	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000998269	t/TJ

2023	PM2.5	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000692655	t/TJ
2023	PM2.5	1A1a	WOOD RESIDUE CHIPS	0.000633811	t/TJ
2023	PM2.5	1A1a	WOOD STUMP CHIPS	0.000506991	t/TJ
2023	PM2.5	1A1b	COKE (S=1.0%)	0.007500000	t/TJ
2023	PM2.5	1A1b	HEAVY FUEL OIL (S<1%)	0.022400000	t/TJ
2023	PM2.5	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000809031	t/TJ
2023	PM2.5	1A1b	OTHER FOSSIL LIQUID	0.004744605	t/TJ
2023	PM2.5	1A1b	OTHER MEDIUM DISTILLATES	0.000094794	t/TJ
2023	PM2.5	1A1b	PETROLEUM COKE	0.002790474	t/TJ
2023	PM2.5	1A1b	SULPHUR CONCENTRATE	0.000951694	t/TJ
2023	PM2.5	1A2a	COKE (S=1.0%)	0.001343989	t/TJ
2023	PM2.5	1A2a	DIESEL OIL (S=001%)	0.000840000	t/TJ
2023	PM2.5	1A2a	GASOIL (FOR NON-ROAD USE)	0.002475521	t/TJ
2023	PM2.5	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.000741240	t/TJ
2023	PM2.5	1A2a	OTHER FOSSIL SOLID	0.003917470	t/TJ
2023	PM2.5	1A2a	WOOD RESIDUE CHIPS	0.001730944	t/TJ
2023	PM2.5	1A2b	COAL (S=1.0%)	0.002343383	t/TJ
2023	PM2.5	1A2b	COKE (S=1.0%)	0.000931878	t/TJ
2023	PM2.5	1A2b	DIESEL OIL (S=001%)	0.000840000	t/TJ
2023	PM2.5	1A2b	GASOIL (FOR NON-ROAD USE)	0.000840000	t/TJ
2023	PM2.5	1A2b	HEAVY FUEL OIL (S<1%)	0.009367210	t/TJ
2023	PM2.5	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000153852	t/TJ
2023	PM2.5	1A2b	MOTOR GASOLINE (S=0.001%)	0.005989028	t/TJ
2023	PM2.5	1A2b	OTHER HEAVY DISTILLATES	0.005218517	t/TJ
2023	PM2.5	1A2c	DIESEL OIL (S=001%)	0.000840000	t/TJ
2023	PM2.5	1A2c	GASOIL (FOR NON-ROAD USE)	0.001352471	t/TJ
2023	PM2.5	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.005819613	t/TJ
2023	PM2.5	1A2c	HEAVY FUEL OIL (S<0,1%)	0.004084706	t/TJ
2023	PM2.5	1A2c	HEAVY FUEL OIL (S<1%)	0.011739814	t/TJ
2023	PM2.5	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000504883	t/TJ
2023	PM2.5	1A2c	METHANOL	0.000840000	t/TJ
2023	PM2.5	1A2c	OTHER FOSSIL LIQUID	0.013709530	t/TJ
2023	PM2.5	1A2c	OTHER FUEL	0.003500000	t/TJ
2023	PM2.5	1A2c	OTHER NON-FOSSIL SOLID	0.002015186	t/TJ
2023	PM2.5	1A2c	OTHER WASTE	0.002606730	t/TJ
2023	PM2.5	1A2c	RENEWABLE DIESEL	0.000840000	t/TJ
2023	PM2.5	1A2c	TALL PITCH AND OIL	0.028150065	t/TJ
2023	PM2.5	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001688792	t/TJ
2023	PM2.5	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000917385	t/TJ
2023	PM2.5	1A2d	ANIMAL-BASED FUELS	0.000750666	t/TJ
2023	PM2.5	1A2d	BARK	0.001291612	t/TJ
2023	PM2.5	1A2d	BIO-FUEL OIL	0.000664544	t/TJ
2023	PM2.5	1A2d	BIOLOGICAL SLURRY	0.000058411	t/TJ
2023	PM2.5	1A2d	BLACK LIQUOR	0.004702366	t/TJ
2023	PM2.5	1A2d	CHIPS FROM ROUNDWOOD	0.001247445	t/TJ
2023	PM2.5	1A2d	COAL (S=1.0%)	0.000479199	t/TJ
2023	PM2.5	1A2d	CUTTER CHIPS ETC.	0.000230314	t/TJ
2023	PM2.5	1A2d	DEMOLITION WOOD	0.000262733	t/TJ
2023	PM2.5	1A2d	FOREST RESIDUE CHIPS	0.000462102	t/TJ
2023	PM2.5	1A2d	GASOIL (FOR NON-ROAD USE)	0.000412861	t/TJ
2023	PM2.5	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.013889136	t/TJ
2023	PM2.5	1A2d	HEAVY FUEL OIL (S<0,1%)	0.001114466	t/TJ
2023	PM2.5	1A2d	HEAVY FUEL OIL (S<0,5%)	0.005803187	t/TJ
2023	PM2.5	1A2d	HEAVY FUEL OIL (S<1%)	0.010869226	t/TJ
2023	PM2.5	1A2d	IMPREGNATED WOOD	0.000262733	t/TJ
2023	PM2.5	1A2d	INDUSTRIAL WASTE	0.001814569	t/TJ

2023	PM2.5	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.000711836	t/TJ
2023	PM2.5	1A2d	METHANOL	0.008204326	t/TJ
2023	PM2.5	1A2d	MILLED PEAT	0.001470990	t/TJ
2023	PM2.5	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003193531	t/TJ
2023	PM2.5	1A2d	PAPER	0.002219323	t/TJ
2023	PM2.5	1A2d	PLASTIC WASTE	0.000649381	t/TJ
2023	PM2.5	1A2d	RECOVERED WOOD	0.000895365	t/TJ
2023	PM2.5	1A2d	RECYCLED AND WASTE OILS	0.000503872	t/TJ
2023	PM2.5	1A2d	SAWDUST	0.002531189	t/TJ
2023	PM2.5	1A2d	SOLID RECOVERED FUEL (SRF)	0.000136875	t/TJ
2023	PM2.5	1A2d	TALL PITCH AND OIL	0.007509983	t/TJ
2023	PM2.5	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000594992	t/TJ
2023	PM2.5	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000176400	t/TJ
2023	PM2.5	1A2d	WOOD RESIDUE CHIPS	0.000334751	t/TJ
2023	PM2.5	1A2d	WOOD STUMP CHIPS	0.000262733	t/TJ
2023	PM2.5	1A2e	ANIMAL FATS AND OILS	0.000180311	t/TJ
2023	PM2.5	1A2e	ANIMAL-BASED FUELS	0.010000000	t/TJ
2023	PM2.5	1A2e	BIO-FUEL OIL	0.000420000	t/TJ
2023	PM2.5	1A2e	CHIPS FROM ROUNDWOOD	0.001368973	t/TJ
2023	PM2.5	1A2e	COAL (S=1.0%)	0.002807414	t/TJ
2023	PM2.5	1A2e	COKE (S=1.0%)	0.000131774	t/TJ
2023	PM2.5	1A2e	FOREST RESIDUE CHIPS	0.001177205	t/TJ
2023	PM2.5	1A2e	GASOIL (FOR NON-ROAD USE)	0.000588024	t/TJ
2023	PM2.5	1A2e	HEAVY FUEL OIL (S<1%)	0.026974818	t/TJ
2023	PM2.5	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.001325492	t/TJ
2023	PM2.5	1A2e	MILLED PEAT	0.000537513	t/TJ
2023	PM2.5	1A2e	MOTOR GASOLINE (S=0.001%)	0.000840000	t/TJ
2023	PM2.5	1A2e	NAPHTHA	0.000840000	t/TJ
2023	PM2.5	1A2e	OTHER NON-FOSSIL SOLID	0.001146009	t/TJ
2023	PM2.5	1A2e	OTHER NON-FOSSIL SOLID	0.018625590	t/TJ
2023	PM2.5	1A2e	PEAT PELLETS AND BRIQUETTES	0.000771479	t/TJ
2023	PM2.5	1A2e	RECOVERED WOOD	0.000255837	t/TJ
2023	PM2.5	1A2e	SAWDUST	0.003500000	t/TJ
2023	PM2.5	1A2e	SOD PEAT	0.003304285	t/TJ
2023	PM2.5	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.002829873	t/TJ
2023	PM2.5	1A2e	WOOD STUMP CHIPS	0.001610841	t/TJ
2023	PM2.5	1A2f	CHIPS FROM ROUNDWOOD	0.002603991	t/TJ
2023	PM2.5	1A2f	COAL (S=1.0%)	0.000145437	t/TJ
2023	PM2.5	1A2f	COKE (S=1.0%)	0.003636674	t/TJ
2023	PM2.5	1A2f	DIESEL OIL (S=0.001%)	0.000840000	t/TJ
2023	PM2.5	1A2f	FOREST RESIDUE CHIPS	0.002603991	t/TJ
2023	PM2.5	1A2f	GASOIL (FOR NON-ROAD USE)	0.000816670	t/TJ
2023	PM2.5	1A2f	HEAVY FUEL OIL (S<0,1%)	0.053974950	t/TJ
2023	PM2.5	1A2f	HEAVY FUEL OIL (S<1%)	0.033928185	t/TJ
2023	PM2.5	1A2f	INDUSTRIAL WASTE	0.000568584	t/TJ
2023	PM2.5	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.002682061	t/TJ
2023	PM2.5	1A2f	MOTOR GASOLINE (S=0.001%)	0.001951002	t/TJ
2023	PM2.5	1A2f	OTHER FOSSIL LIQUID	0.000688013	t/TJ
2023	PM2.5	1A2f	OTHER FUEL	0.001849739	t/TJ
2023	PM2.5	1A2f	OTHER NON-FOSSIL SOLID	0.000040990	t/TJ
2023	PM2.5	1A2f	OTHER WASTE	0.000423470	t/TJ
2023	PM2.5	1A2f	PETROLEUM COKE	0.002811799	t/TJ
2023	PM2.5	1A2f	PLASTIC WASTE	0.000138475	t/TJ
2023	PM2.5	1A2f	RECYCLED AND WASTE OILS	0.000204289	t/TJ
2023	PM2.5	1A2f	REED CANARY GRASS	0.000568584	t/TJ
2023	PM2.5	1A2f	RUBBER WASTE	0.005746219	t/TJ

2023	PM2.5	1A2f	SAWDUST	0.000040990	t/TJ
2023	PM2.5	1A2f	SOLID RECOVERED FUEL (SRF)	0.000228093	t/TJ
2023	PM2.5	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000040990	t/TJ
2023	PM2.5	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.013428134	t/TJ
2023	PM2.5	1A2gvii	LIQUID GAS	0.004141127	t/TJ
2023	PM2.5	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.004457796	t/TJ
2023	PM2.5	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000004596	t/TJ
2023	PM2.5	1A2gviii	BARK	0.024656180	t/TJ
2023	PM2.5	1A2gviii	BIO PELLETS (NON-WOOD)	0.000007236	t/TJ
2023	PM2.5	1A2gviii	BIOLOGICAL SLURRY	0.000065126	t/TJ
2023	PM2.5	1A2gviii	CHIPS FROM ROUNDWOOD	0.000151089	t/TJ
2023	PM2.5	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.000087443	t/TJ
2023	PM2.5	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.002867915	t/TJ
2023	PM2.5	1A2gviii	CUTTER CHIPS ETC.	0.004848915	t/TJ
2023	PM2.5	1A2gviii	DEMOLITION WOOD	0.000011722	t/TJ
2023	PM2.5	1A2gviii	DIESEL OIL (S=001%)	0.000621199	t/TJ
2023	PM2.5	1A2gviii	FOREST RESIDUE CHIPS	0.010000000	t/TJ
2023	PM2.5	1A2gviii	FOREST RESIDUE CHIPS	0.000432189	t/TJ
2023	PM2.5	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.000909495	t/TJ
2023	PM2.5	1A2gviii	HAZARDOUS WASTE	0.000091482	t/TJ
2023	PM2.5	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.022118271	t/TJ
2023	PM2.5	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.014749318	t/TJ
2023	PM2.5	1A2gviii	HEAVY FUEL OIL (S<1%)	0.031988684	t/TJ
2023	PM2.5	1A2gviii	IMPREGNATED WOOD	0.000253022	t/TJ
2023	PM2.5	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.000735565	t/TJ
2023	PM2.5	1A2gviii	MILLED PEAT	0.000033459	t/TJ
2023	PM2.5	1A2gviii	MUNICIPAL WASTE - unsorted	0.000029977	t/TJ
2023	PM2.5	1A2gviii	NAPHTHA	0.000929377	t/TJ
2023	PM2.5	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000340755	t/TJ
2023	PM2.5	1A2gviii	OTHER HEAVY DISTILLATES	0.028951866	t/TJ
2023	PM2.5	1A2gviii	OTHER NON-FOSSIL SOLID	0.000056943	t/TJ
2023	PM2.5	1A2gviii	OTHER NON-FOSSIL SOLID	0.001087430	t/TJ
2023	PM2.5	1A2gviii	OTHER WASTE	0.000131217	t/TJ
2023	PM2.5	1A2gviii	OTHER WOOD RESIDUE	0.010215219	t/TJ
2023	PM2.5	1A2gviii	PLASTIC WASTE	0.000229846	t/TJ
2023	PM2.5	1A2gviii	RECOVERED WOOD	0.000330235	t/TJ
2023	PM2.5	1A2gviii	RECYCLED AND WASTE OILS	0.001194726	t/TJ
2023	PM2.5	1A2gviii	RENEWABLE DIESEL	0.001017949	t/TJ
2023	PM2.5	1A2gviii	SAWDUST	0.000486732	t/TJ
2023	PM2.5	1A2gviii	SAWDUST AND CUTTER CHIPS	0.154000000	t/TJ
2023	PM2.5	1A2gviii	SOD PEAT	0.004075154	t/TJ
2023	PM2.5	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000005527	t/TJ
2023	PM2.5	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003718199	t/TJ
2023	PM2.5	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005453108	t/TJ
2023	PM2.5	1A2gviii	WOOD RESIDUE CHIPS	0.005252116	t/TJ
2023	PM2.5	1A2gviii	WOOD STUMP CHIPS	0.000006410	t/TJ
2023	PM2.5	1A3ai(i)	KEROSENE (JET FUEL)	0.002925445	t/TJ
2023	PM2.5	1A3aii(i)	AVIATION GASOLINE	0.008100000	t/TJ
2023	PM2.5	1A3aii(i)	KEROSENE (JET FUEL)	0.003134030	t/TJ
2023	PM2.5	1A3bi	DIESEL OIL (S=001%)	0.005169146	t/TJ
2023	PM2.5	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000414476	t/TJ
2023	PM2.5	1A3bi	NATURAL GAS	0.001129783	t/TJ
2023	PM2.5	1A3bii	DIESEL OIL (S=001%)	0.014122964	t/TJ
2023	PM2.5	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000410553	t/TJ
2023	PM2.5	1A3bii	NATURAL GAS	0.001005459	t/TJ
2023	PM2.5	1A3biii	DIESEL OIL (S=001%)	0.001747461	t/TJ

2023	PM2.5	1A3biii	NATURAL GAS	0.000371748	t/TJ
2023	PM2.5	1A3biv	DIESEL OIL (S=001%)	0.028041938	t/TJ
2023	PM2.5	1A3biv	MOTOR GASOLINE (S=0.001%)	0.005943885	t/TJ
2023	PM2.5	1A3c	GASOIL (FOR NON-ROAD USE)	0.030599212	t/TJ
2023	PM2.5	1A3dii	DIESEL OIL (S=001%)	0.102896302	t/TJ
2023	PM2.5	1A3dii	GASOIL (FOR NON-ROAD USE)	0.026013535	t/TJ
2023	PM2.5	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.039497892	t/TJ
2023	PM2.5	1A3dii	MOTOR GASOLINE (S=0.001%)	0.126282895	t/TJ
2023	PM2.5	1A4ai	BIO-FUEL OIL	0.000840000	t/TJ
2023	PM2.5	1A4ai	FOREST WOODFUEL	0.015652933	t/TJ
2023	PM2.5	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000651660	t/TJ
2023	PM2.5	1A4ai	HEAVY FUEL OIL (S<1%)	0.050400000	t/TJ
2023	PM2.5	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000839892	t/TJ
2023	PM2.5	1A4ai	NAPHTHA	0.000075590	t/TJ
2023	PM2.5	1A4ai	SOD PEAT	0.017647059	t/TJ
2023	PM2.5	1A4aii	GASOIL (FOR NON-ROAD USE)	0.010573337	t/TJ
2023	PM2.5	1A4aii	MOTOR GASOLINE (S=0.001%)	0.046698695	t/TJ
2023	PM2.5	1A4bi	FOREST WOODFUEL	0.155183804	t/TJ
2023	PM2.5	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.004900000	t/TJ
2023	PM2.5	1A4bi	PARAFFIN	0.004900000	t/TJ
2023	PM2.5	1A4bi	SOD PEAT	0.320000000	t/TJ
2023	PM2.5	1A4bii	GASOIL (FOR NON-ROAD USE)	0.071916028	t/TJ
2023	PM2.5	1A4bii	MOTOR GASOLINE (S=0.001%)	0.048091012	t/TJ
2023	PM2.5	1A4ci	CHIPS FROM ROUNDWOOD	0.033944095	t/TJ
2023	PM2.5	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.003500000	t/TJ
2023	PM2.5	1A4ci	COAL (S=1.0%)	0.003453947	t/TJ
2023	PM2.5	1A4ci	FOREST RESIDUE CHIPS	0.003500000	t/TJ
2023	PM2.5	1A4ci	FOREST WOODFUEL	0.015500000	t/TJ
2023	PM2.5	1A4ci	HEAVY FUEL OIL (S<1%)	0.050400000	t/TJ
2023	PM2.5	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000840000	t/TJ
2023	PM2.5	1A4ci	OTHER NON-FOSSIL SOLID	0.005837590	t/TJ
2023	PM2.5	1A4ci	RECOVERED WOOD	0.008240015	t/TJ
2023	PM2.5	1A4ci	SOD PEAT	0.019738789	t/TJ
2023	PM2.5	1A4cii	GASOIL (FOR NON-ROAD USE)	0.010516143	t/TJ
2023	PM2.5	1A4cii	MOTOR GASOLINE (S=0.001%)	0.132964076	t/TJ
2023	PM2.5	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.029362013	t/TJ
2023	PM2.5	1A5a	FOREST WOODFUEL	0.010000000	t/TJ
2023	PM2.5	1A5a	KEROSENE (JET FUEL)	0.009917755	t/TJ
2023	PM2.5	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.003138437	t/TJ
2023	PM2.5	1A5a	OTHER PETROLEUM PRODUCTS	0.000840000	t/TJ

PM10 Implied emission factors in Finnish air pollutant inventory for 2023

2023	PM10	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000171373	t/TJ
2023	PM10	1A1a	ANIMAL-BASED FUELS	0.000013725	t/TJ
2023	PM10	1A1a	ANTHRACITE	0.000473534	t/TJ
2023	PM10	1A1a	ASPHALTENE	0.000102959	t/TJ
2023	PM10	1A1a	BARK	0.001732687	t/TJ
2023	PM10	1A1a	BIO PELLETS (NON-WOOD)	0.000060581	t/TJ
2023	PM10	1A1a	BIO PYROLYSIS OIL	0.000956938	t/TJ
2023	PM10	1A1a	BIO-FUEL OIL	0.000139106	t/TJ
2023	PM10	1A1a	BIOLOGICAL SLURRY	0.006413973	t/TJ
2023	PM10	1A1a	CHIPS FROM ROUNDWOOD	0.003009906	t/TJ
2023	PM10	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.002004869	t/TJ
2023	PM10	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.005934136	t/TJ
2023	PM10	1A1a	COAL (S=1.0%)	0.006395327	t/TJ

2023	PM10	1A1a	CUTTER CHIPS ETC.	0.006983377	t/TJ
2023	PM10	1A1a	DEINKING WASTE	0.000057138	t/TJ
2023	PM10	1A1a	DEMOLITION WOOD	0.000936900	t/TJ
2023	PM10	1A1a	DIESEL OIL (S=001%)	0.003500000	t/TJ
2023	PM10	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.001352315	t/TJ
2023	PM10	1A1a	FOREST RESIDUE CHIPS	0.039679449	t/TJ
2023	PM10	1A1a	FOREST RESIDUE CHIPS	0.002943012	t/TJ
2023	PM10	1A1a	GASOIL (FOR NON-ROAD USE)	0.001288896	t/TJ
2023	PM10	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.003897144	t/TJ
2023	PM10	1A1a	HEAVY FUEL OIL (S<0,1%)	0.002803423	t/TJ
2023	PM10	1A1a	HEAVY FUEL OIL (S<0,5%)	0.006077190	t/TJ
2023	PM10	1A1a	HEAVY FUEL OIL (S<1%)	0.009408451	t/TJ
2023	PM10	1A1a	IMPREGNATED WOOD	0.000702404	t/TJ
2023	PM10	1A1a	INDUSTRIAL WASTE	0.000422735	t/TJ
2023	PM10	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.006872552	t/TJ
2023	PM10	1A1a	LIGNIN	0.001023161	t/TJ
2023	PM10	1A1a	MILLED PEAT	0.001595019	t/TJ
2023	PM10	1A1a	MOTOR GASOLINE (S=0.001%)	0.003500000	t/TJ
2023	PM10	1A1a	MUNICIPAL WASTE - unsorted	0.000162767	t/TJ
2023	PM10	1A1a	NAPHTHA	0.003921569	t/TJ
2023	PM10	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001697834	t/TJ
2023	PM10	1A1a	OTHER FOSSIL SOLID	0.000300444	t/TJ
2023	PM10	1A1a	OTHER FUEL	0.000529242	t/TJ
2023	PM10	1A1a	OTHER NON-FOSSIL SOLID	0.001277436	t/TJ
2023	PM10	1A1a	OTHER NON-FOSSIL SOLID	0.001772481	t/TJ
2023	PM10	1A1a	OTHER WASTE	0.000186776	t/TJ
2023	PM10	1A1a	OTHER WOOD RESIDUE	0.001365186	t/TJ
2023	PM10	1A1a	PAPER	0.000053365	t/TJ
2023	PM10	1A1a	PEAT PELLETS AND BRIQUETTES	0.008476526	t/TJ
2023	PM10	1A1a	PLASTIC WASTE	0.007533330	t/TJ
2023	PM10	1A1a	RECOVERED FUEL (REF 2)	0.052000000	t/TJ
2023	PM10	1A1a	RECOVERED WOOD	0.000854585	t/TJ
2023	PM10	1A1a	RECYCLED AND WASTE OILS	0.000097435	t/TJ
2023	PM10	1A1a	RENEWABLE DIESEL	0.006872852	t/TJ
2023	PM10	1A1a	SAWDUST	0.002881435	t/TJ
2023	PM10	1A1a	SOD PEAT	0.048439765	t/TJ
2023	PM10	1A1a	SOLID RECOVERED FUEL (SRF)	0.000735950	t/TJ
2023	PM10	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.006312627	t/TJ
2023	PM10	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.003730553	t/TJ
2023	PM10	1A1a	WOOD RESIDUE CHIPS	0.004551486	t/TJ
2023	PM10	1A1a	WOOD STUMP CHIPS	0.005893843	t/TJ
2023	PM10	1A1b	COKE (S=1.0%)	0.039000000	t/TJ
2023	PM10	1A1b	HEAVY FUEL OIL (S<1%)	0.064500000	t/TJ
2023	PM10	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.003370963	t/TJ
2023	PM10	1A1b	OTHER FOSSIL LIQUID	0.000395384	t/TJ
2023	PM10	1A1b	OTHER MEDIUM DISTILLATES	0.000394976	t/TJ
2023	PM10	1A1b	PETROLEUM COKE	0.004858414	t/TJ
2023	PM10	1A1b	SULPHUR CONCENTRATE	0.002150829	t/TJ
2023	PM10	1A2a	COKE (S=1.0%)	0.005927382	t/TJ
2023	PM10	1A2a	DIESEL OIL (S=001%)	0.003500000	t/TJ
2023	PM10	1A2a	GASOIL (FOR NON-ROAD USE)	0.010314671	t/TJ
2023	PM10	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.002375990	t/TJ
2023	PM10	1A2a	OTHER FOSSIL SOLID	0.032164468	t/TJ
2023	PM10	1A2a	WOOD RESIDUE CHIPS	0.025716878	t/TJ
2023	PM10	1A2b	COAL (S=1.0%)	0.036556772	t/TJ
2023	PM10	1A2b	COKE (S=1.0%)	0.004845766	t/TJ

2023	PM10	1A2b	DIESEL OIL (S=001%)	0.003500000	t/TJ
2023	PM10	1A2b	GASOIL (FOR NON-ROAD USE)	0.003500000	t/TJ
2023	PM10	1A2b	HEAVY FUEL OIL (S<1%)	0.016849080	t/TJ
2023	PM10	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000630635	t/TJ
2023	PM10	1A2b	MOTOR GASOLINE (S=0.001%)	0.024954284	t/TJ
2023	PM10	1A2b	OTHER HEAVY DISTILLATES	0.008014151	t/TJ
2023	PM10	1A2c	DIESEL OIL (S=001%)	0.003500000	t/TJ
2023	PM10	1A2c	GASOIL (FOR NON-ROAD USE)	0.005635294	t/TJ
2023	PM10	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.008937263	t/TJ
2023	PM10	1A2c	HEAVY FUEL OIL (S<0,1%)	0.006857652	t/TJ
2023	PM10	1A2c	HEAVY FUEL OIL (S<1%)	0.030622918	t/TJ
2023	PM10	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.002103680	t/TJ
2023	PM10	1A2c	METHANOL	0.003500000	t/TJ
2023	PM10	1A2c	OTHER FOSSIL LIQUID	0.021053921	t/TJ
2023	PM10	1A2c	OTHER FUEL	0.008471070	t/TJ
2023	PM10	1A2c	OTHER NON-FOSSIL SOLID	0.004877367	t/TJ
2023	PM10	1A2c	OTHER WASTE	0.007045330	t/TJ
2023	PM10	1A2c	RENEWABLE DIESEL	0.003500000	t/TJ
2023	PM10	1A2c	TALL PITCH AND OIL	0.031135710	t/TJ
2023	PM10	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.025090627	t/TJ
2023	PM10	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.002220351	t/TJ
2023	PM10	1A2d	ANIMAL-BASED FUELS	0.000565502	t/TJ
2023	PM10	1A2d	BARK	0.003749723	t/TJ
2023	PM10	1A2d	BIO-FUEL OIL	0.002768932	t/TJ
2023	PM10	1A2d	BIOLOGICAL SLURRY	0.000157871	t/TJ
2023	PM10	1A2d	BLACK LIQUOR	0.007268966	t/TJ
2023	PM10	1A2d	CHIPS FROM ROUNDWOOD	0.007867568	t/TJ
2023	PM10	1A2d	COAL (S=1.0%)	0.001443985	t/TJ
2023	PM10	1A2d	CUTTER CHIPS ETC.	0.001197631	t/TJ
2023	PM10	1A2d	DEMOLITION WOOD	0.000565502	t/TJ
2023	PM10	1A2d	FOREST RESIDUE CHIPS	0.002102495	t/TJ
2023	PM10	1A2d	GASOIL (FOR NON-ROAD USE)	0.001720252	t/TJ
2023	PM10	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.002362721	t/TJ
2023	PM10	1A2d	HEAVY FUEL OIL (S<0,1%)	0.001555729	t/TJ
2023	PM10	1A2d	HEAVY FUEL OIL (S<0,5%)	0.008912037	t/TJ
2023	PM10	1A2d	HEAVY FUEL OIL (S<1%)	0.005557824	t/TJ
2023	PM10	1A2d	HYDROGEN	0.001167982	t/TJ
2023	PM10	1A2d	IMPREGNATED WOOD	0.000565502	t/TJ
2023	PM10	1A2d	INDUSTRIAL WASTE	0.008630276	t/TJ
2023	PM10	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.002965985	t/TJ
2023	PM10	1A2d	LIQUID GAS	0.000000019	t/TJ
2023	PM10	1A2d	METHANOL	0.039505510	t/TJ
2023	PM10	1A2d	MILLED PEAT	0.003287651	t/TJ
2023	PM10	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.007729321	t/TJ
2023	PM10	1A2d	PAPER	0.005371440	t/TJ
2023	PM10	1A2d	PLASTIC WASTE	0.001467602	t/TJ
2023	PM10	1A2d	RECOVERED WOOD	0.002125919	t/TJ
2023	PM10	1A2d	RECYCLED AND WASTE OILS	0.000696680	t/TJ
2023	PM10	1A2d	SAWDUST	0.013116014	t/TJ
2023	PM10	1A2d	SOLID RECOVERED FUEL (SRF)	0.000711751	t/TJ
2023	PM10	1A2d	TALL PITCH AND OIL	0.003150810	t/TJ
2023	PM10	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001470009	t/TJ
2023	PM10	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.002620801	t/TJ
2023	PM10	1A2d	WOOD RESIDUE CHIPS	0.000837168	t/TJ
2023	PM10	1A2d	WOOD STUMP CHIPS	0.000565502	t/TJ
2023	PM10	1A2e	ANIMAL FATS AND OILS	0.000872811	t/TJ

2023	PM10	1A2e	ANIMAL-BASED FUELS	0.052000000	t/TJ
2023	PM10	1A2e	BIO-FUEL OIL	0.016945417	t/TJ
2023	PM10	1A2e	CHIPS FROM ROUNDWOOD	0.007118660	t/TJ
2023	PM10	1A2e	COAL (S=1.0%)	0.014598553	t/TJ
2023	PM10	1A2e	COKE (S=1.0%)	0.000685227	t/TJ
2023	PM10	1A2e	FOREST RESIDUE CHIPS	0.017489900	t/TJ
2023	PM10	1A2e	GASOIL (FOR NON-ROAD USE)	0.002450101	t/TJ
2023	PM10	1A2e	HEAVY FUEL OIL (S<1%)	0.047214711	t/TJ
2023	PM10	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.005522882	t/TJ
2023	PM10	1A2e	MILLED PEAT	0.002815519	t/TJ
2023	PM10	1A2e	MOTOR GASOLINE (S=0.001%)	0.003500000	t/TJ
2023	PM10	1A2e	NAPHTHA	0.003500000	t/TJ
2023	PM10	1A2e	OTHER NON-FOSSIL SOLID	0.002773692	t/TJ
2023	PM10	1A2e	OTHER NON-FOSSIL SOLID	0.045079621	t/TJ
2023	PM10	1A2e	PEAT PELLETS AND BRIQUETTES	0.004011690	t/TJ
2023	PM10	1A2e	RECOVERED WOOD	0.000619204	t/TJ
2023	PM10	1A2e	SAWDUST	0.018200000	t/TJ
2023	PM10	1A2e	SOD PEAT	0.017182283	t/TJ
2023	PM10	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.025811519	t/TJ
2023	PM10	1A2e	WOOD STUMP CHIPS	0.023932495	t/TJ
2023	PM10	1A2f	CHIPS FROM ROUNDWOOD	0.038687859	t/TJ
2023	PM10	1A2f	COAL (S=1.0%)	0.004684401	t/TJ
2023	PM10	1A2f	COKE (S=1.0%)	0.018910704	t/TJ
2023	PM10	1A2f	DIESEL OIL (S=001%)	0.003500000	t/TJ
2023	PM10	1A2f	FOREST RESIDUE CHIPS	0.038687859	t/TJ
2023	PM10	1A2f	GASOIL (FOR NON-ROAD USE)	0.003402651	t/TJ
2023	PM10	1A2f	HEAVY FUEL OIL (S<0,1%)	0.082890102	t/TJ
2023	PM10	1A2f	HEAVY FUEL OIL (S<1%)	0.056786448	t/TJ
2023	PM10	1A2f	INDUSTRIAL WASTE	0.002956638	t/TJ
2023	PM10	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.011173766	t/TJ
2023	PM10	1A2f	MOTOR GASOLINE (S=0.001%)	0.008129173	t/TJ
2023	PM10	1A2f	OTHER FOSSIL LIQUID	0.001056591	t/TJ
2023	PM10	1A2f	OTHER FUEL	0.004476935	t/TJ
2023	PM10	1A2f	OTHER NON-FOSSIL SOLID	0.000099208	t/TJ
2023	PM10	1A2f	OTHER WASTE	0.001144532	t/TJ
2023	PM10	1A2f	PETROLEUM COKE	0.006400827	t/TJ
2023	PM10	1A2f	PLASTIC WASTE	0.000312953	t/TJ
2023	PM10	1A2f	RECYCLED AND WASTE OILS	0.000372077	t/TJ
2023	PM10	1A2f	REED CANARY GRASS	0.001376147	t/TJ
2023	PM10	1A2f	RUBBER WASTE	0.007607670	t/TJ
2023	PM10	1A2f	SAWDUST	0.000213146	t/TJ
2023	PM10	1A2f	SOLID RECOVERED FUEL (SRF)	0.001186083	t/TJ
2023	PM10	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000608990	t/TJ
2023	PM10	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.013428134	t/TJ
2023	PM10	1A2gvii	LIQUID GAS	0.004141127	t/TJ
2023	PM10	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.004457796	t/TJ
2023	PM10	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000011124	t/TJ
2023	PM10	1A2gviii	BARK	0.033128339	t/TJ
2023	PM10	1A2gviii	BIO PELLETS (NON-WOOD)	0.000019558	t/TJ
2023	PM10	1A2gviii	BIOLOGICAL SLURRY	0.000176018	t/TJ
2023	PM10	1A2gviii	CHIPS FROM ROUNDWOOD	0.001748472	t/TJ
2023	PM10	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.001299152	t/TJ
2023	PM10	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.042609016	t/TJ
2023	PM10	1A2gviii	CUTTER CHIPS ETC.	0.032733480	t/TJ
2023	PM10	1A2gviii	DEMOLITION WOOD	0.000030992	t/TJ
2023	PM10	1A2gviii	DIESEL OIL (S=001%)	0.002588330	t/TJ

2023	PM10	1A2gviii	FOREST RESIDUE CHIPS	0.052000000	t/TJ
2023	PM10	1A2gviii	FOREST RESIDUE CHIPS	0.006396783	t/TJ
2023	PM10	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.003843778	t/TJ
2023	PM10	1A2gviii	HAZARDOUS WASTE	0.000222635	t/TJ
2023	PM10	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.033967345	t/TJ
2023	PM10	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.022650738	t/TJ
2023	PM10	1A2gviii	HEAVY FUEL OIL (S<1%)	0.048912468	t/TJ
2023	PM10	1A2gviii	IMPREGNATED WOOD	0.000688185	t/TJ
2023	PM10	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.003384424	t/TJ
2023	PM10	1A2gviii	MILLED PEAT	0.000160501	t/TJ
2023	PM10	1A2gviii	MUNICIPAL WASTE - unsorted	0.000240268	t/TJ
2023	PM10	1A2gviii	NAPHTHA	0.003872406	t/TJ
2023	PM10	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000824730	t/TJ
2023	PM10	1A2gviii	OTHER HEAVY DISTILLATES	0.027653991	t/TJ
2023	PM10	1A2gviii	OTHER NON-FOSSIL SOLID	0.000137820	t/TJ
2023	PM10	1A2gviii	OTHER NON-FOSSIL SOLID	0.002631914	t/TJ
2023	PM10	1A2gviii	OTHER WASTE	0.000426490	t/TJ
2023	PM10	1A2gviii	OTHER WOOD RESIDUE	0.053105638	t/TJ
2023	PM10	1A2gviii	PLASTIC WASTE	0.000584124	t/TJ
2023	PM10	1A2gviii	RECOVERED WOOD	0.000838556	t/TJ
2023	PM10	1A2gviii	RECYCLED AND WASTE OILS	0.001651891	t/TJ
2023	PM10	1A2gviii	RENEWABLE DIESEL	0.004241455	t/TJ
2023	PM10	1A2gviii	SAWDUST	0.002531009	t/TJ
2023	PM10	1A2gviii	SAWDUST AND CUTTER CHIPS	0.178000000	t/TJ
2023	PM10	1A2gviii	SOD PEAT	0.010511421	t/TJ
2023	PM10	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000028739	t/TJ
2023	PM10	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.014506055	t/TJ
2023	PM10	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051621933	t/TJ
2023	PM10	1A2gviii	WOOD RESIDUE CHIPS	0.027942199	t/TJ
2023	PM10	1A2gviii	WOOD STUMP CHIPS	0.000095237	t/TJ
2023	PM10	1A3ai(i)	KEROSENE (JET FUEL)	0.002925445	t/TJ
2023	PM10	1A3aii(i)	AVIATION GASOLINE	0.008100000	t/TJ
2023	PM10	1A3aii(i)	KEROSENE (JET FUEL)	0.003134030	t/TJ
2023	PM10	1A3bi	DIESEL OIL (S=001%)	0.005169146	t/TJ
2023	PM10	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000414476	t/TJ
2023	PM10	1A3bi	NATURAL GAS	0.001129783	t/TJ
2023	PM10	1A3bii	DIESEL OIL (S=001%)	0.014122964	t/TJ
2023	PM10	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000410553	t/TJ
2023	PM10	1A3bii	NATURAL GAS	0.001005459	t/TJ
2023	PM10	1A3biii	DIESEL OIL (S=001%)	0.001747461	t/TJ
2023	PM10	1A3biii	NATURAL GAS	0.000371748	t/TJ
2023	PM10	1A3biv	DIESEL OIL (S=001%)	0.028041938	t/TJ
2023	PM10	1A3biv	MOTOR GASOLINE (S=0.001%)	0.005943885	t/TJ
2023	PM10	1A3c	GASOIL (FOR NON-ROAD USE)	0.032162675	t/TJ
2023	PM10	1A3dii	DIESEL OIL (S=001%)	0.102896302	t/TJ
2023	PM10	1A3dii	GASOIL (FOR NON-ROAD USE)	0.028903927	t/TJ
2023	PM10	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.043886546	t/TJ
2023	PM10	1A3dii	MOTOR GASOLINE (S=0.001%)	0.126282895	t/TJ
2023	PM10	1A4ai	BIO-FUEL OIL	0.003500000	t/TJ
2023	PM10	1A4ai	FOREST WOODFUEL	0.016157867	t/TJ
2023	PM10	1A4ai	GASOIL (FOR NON-ROAD USE)	0.002715248	t/TJ
2023	PM10	1A4ai	HEAVY FUEL OIL (S<1%)	0.077400000	t/TJ
2023	PM10	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.003501718	t/TJ
2023	PM10	1A4ai	NAPHTHA	0.000314959	t/TJ
2023	PM10	1A4ai	SOD PEAT	0.091764706	t/TJ
2023	PM10	1A4aii	GASOIL (FOR NON-ROAD USE)	0.010573337	t/TJ

2023	PM10	1A4aii	MOTOR GASOLINE (S=0.001%)	0.046698695	t/TJ
2023	PM10	1A4bi	FOREST WOODFUEL	0.160189733	t/TJ
2023	PM10	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.006300000	t/TJ
2023	PM10	1A4bi	PARAFFIN	0.006300000	t/TJ
2023	PM10	1A4bi	SOD PEAT	0.360000000	t/TJ
2023	PM10	1A4bii	GASOIL (FOR NON-ROAD USE)	0.071916028	t/TJ
2023	PM10	1A4bii	MOTOR GASOLINE (S=0.001%)	0.048091012	t/TJ
2023	PM10	1A4ci	CHIPS FROM ROUNDWOOD	0.176509295	t/TJ
2023	PM10	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.052000000	t/TJ
2023	PM10	1A4ci	COAL (S=1.0%)	0.017960526	t/TJ
2023	PM10	1A4ci	FOREST RESIDUE CHIPS	0.052000000	t/TJ
2023	PM10	1A4ci	FOREST WOODFUEL	0.016000000	t/TJ
2023	PM10	1A4ci	HEAVY FUEL OIL (S<1%)	0.077400000	t/TJ
2023	PM10	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.003500000	t/TJ
2023	PM10	1A4ci	OTHER NON-FOSSIL SOLID	0.014128752	t/TJ
2023	PM10	1A4ci	RECOVERED WOOD	0.019943355	t/TJ
2023	PM10	1A4ci	SOD PEAT	0.102641705	t/TJ
2023	PM10	1A4cii	GASOIL (FOR NON-ROAD USE)	0.010516143	t/TJ
2023	PM10	1A4cii	MOTOR GASOLINE (S=0.001%)	0.132964076	t/TJ
2023	PM10	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.032624459	t/TJ
2023	PM10	1A5a	FOREST WOODFUEL	0.052000000	t/TJ
2023	PM10	1A5a	KEROSENE (JET FUEL)	0.009917755	t/TJ
2023	PM10	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.006044969	t/TJ
2023	PM10	1A5a	OTHER PETROLEUM PRODUCTS	0.003500000	t/TJ

TSP Implied emission factors in Finnish air pollutant inventory for 2023

2023	TSP	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000202303	t/TJ
2023	TSP	1A1a	ANIMAL-BASED FUELS	0.000026746	t/TJ
2023	TSP	1A1a	ANTHRACITE	0.000530932	t/TJ
2023	TSP	1A1a	ASPHALTENE	0.000119719	t/TJ
2023	TSP	1A1a	BARK	0.002472382	t/TJ
2023	TSP	1A1a	BIO PELLETS (NON-WOOD)	0.000085988	t/TJ
2023	TSP	1A1a	BIO PYROLYSIS OIL	0.001913876	t/TJ
2023	TSP	1A1a	BIO-FUEL OIL	0.000278212	t/TJ
2023	TSP	1A1a	BIOLOGICAL SLURRY	0.009103864	t/TJ
2023	TSP	1A1a	CHIPS FROM ROUNDWOOD	0.002418007	t/TJ
2023	TSP	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.003305841	t/TJ
2023	TSP	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.022020904	t/TJ
2023	TSP	1A1a	COAL (S=1.0%)	0.008136950	t/TJ
2023	TSP	1A1a	CUTTER CHIPS ETC.	0.003864003	t/TJ
2023	TSP	1A1a	DEINKING WASTE	0.000115722	t/TJ
2023	TSP	1A1a	DEMOLITION WOOD	0.001011635	t/TJ
2023	TSP	1A1a	DIESEL OIL (S=001%)	0.007000000	t/TJ
2023	TSP	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.001596396	t/TJ
2023	TSP	1A1a	FOREST RESIDUE CHIPS	0.005710431	t/TJ
2023	TSP	1A1a	FOREST RESIDUE CHIPS	0.150742467	t/TJ
2023	TSP	1A1a	GASOIL (FOR NON-ROAD USE)	0.002577793	t/TJ
2023	TSP	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.004199138	t/TJ
2023	TSP	1A1a	HEAVY FUEL OIL (S<0,1%)	0.003259612	t/TJ
2023	TSP	1A1a	HEAVY FUEL OIL (S<0,5%)	0.007066004	t/TJ
2023	TSP	1A1a	HEAVY FUEL OIL (S<1%)	0.010511025	t/TJ
2023	TSP	1A1a	IMPREGNATED WOOD	0.000820555	t/TJ
2023	TSP	1A1a	INDUSTRIAL WASTE	0.001468932	t/TJ
2023	TSP	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.013745104	t/TJ
2023	TSP	1A1a	LIGNIN	0.001207830	t/TJ

2023	TSP	1A1a	MILLED PEAT	0.002713932	t/TJ
2023	TSP	1A1a	MOTOR GASOLINE (S=0.001%)	0.007000000	t/TJ
2023	TSP	1A1a	MUNICIPAL WASTE - unsorted	0.000326387	t/TJ
2023	TSP	1A1a	NAPHTHA	0.007843137	t/TJ
2023	TSP	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002167740	t/TJ
2023	TSP	1A1a	OTHER FOSSIL SOLID	0.000354670	t/TJ
2023	TSP	1A1a	OTHER FUEL	0.000624764	t/TJ
2023	TSP	1A1a	OTHER NON-FOSSIL SOLID	0.001512305	t/TJ
2023	TSP	1A1a	OTHER NON-FOSSIL SOLID	0.002095531	t/TJ
2023	TSP	1A1a	OTHER WASTE	0.000230964	t/TJ
2023	TSP	1A1a	OTHER WOOD RESIDUE	0.000859837	t/TJ
2023	TSP	1A1a	PAPER	0.000062997	t/TJ
2023	TSP	1A1a	PEAT PELLETS AND BRIQUETTES	0.020958443	t/TJ
2023	TSP	1A1a	PLASTIC WASTE	0.010000000	t/TJ
2023	TSP	1A1a	RECOVERED FUEL (REF 2)	0.200000000	t/TJ
2023	TSP	1A1a	RECOVERED WOOD	0.001391037	t/TJ
2023	TSP	1A1a	RECYCLED AND WASTE OILS	0.000104435	t/TJ
2023	TSP	1A1a	RENEWABLE DIESEL	0.013745704	t/TJ
2023	TSP	1A1a	SAWDUST	0.001933744	t/TJ
2023	TSP	1A1a	SOD PEAT	0.185010162	t/TJ
2023	TSP	1A1a	SOLID RECOVERED FUEL (SRF)	0.002830576	t/TJ
2023	TSP	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.019221741	t/TJ
2023	TSP	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.010161650	t/TJ
2023	TSP	1A1a	WOOD RESIDUE CHIPS	0.014857964	t/TJ
2023	TSP	1A1a	WOOD STUMP CHIPS	0.021187151	t/TJ
2023	TSP	1A1b	COKE (S=1.0%)	0.150000000	t/TJ
2023	TSP	1A1b	HEAVY FUEL OIL (S<1%)	0.075000000	t/TJ
2023	TSP	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.006741926	t/TJ
2023	TSP	1A1b	OTHER FOSSIL LIQUID	0.000790767	t/TJ
2023	TSP	1A1b	OTHER MEDIUM DISTILLATES	0.000789952	t/TJ
2023	TSP	1A1b	PETROLEUM COKE	0.018686208	t/TJ
2023	TSP	1A1b	SULPHUR CONCENTRATE	0.002855083	t/TJ
2023	TSP	1A2a	COKE (S=1.0%)	0.015535171	t/TJ
2023	TSP	1A2a	DIESEL OIL (S=001%)	0.007000000	t/TJ
2023	TSP	1A2a	GASOIL (FOR NON-ROAD USE)	0.020629341	t/TJ
2023	TSP	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.004751979	t/TJ
2023	TSP	1A2a	OTHER FOSSIL SOLID	0.062679525	t/TJ
2023	TSP	1A2a	WOOD RESIDUE CHIPS	0.098911071	t/TJ
2023	TSP	1A2b	COAL (S=1.0%)	0.140602971	t/TJ
2023	TSP	1A2b	COKE (S=1.0%)	0.018637560	t/TJ
2023	TSP	1A2b	DIESEL OIL (S=001%)	0.007000000	t/TJ
2023	TSP	1A2b	GASOIL (FOR NON-ROAD USE)	0.007000000	t/TJ
2023	TSP	1A2b	HEAVY FUEL OIL (S<1%)	0.019591954	t/TJ
2023	TSP	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.001261271	t/TJ
2023	TSP	1A2b	MOTOR GASOLINE (S=0.001%)	0.049908568	t/TJ
2023	TSP	1A2b	OTHER HEAVY DISTILLATES	0.009318780	t/TJ
2023	TSP	1A2c	DIESEL OIL (S=001%)	0.007000000	t/TJ
2023	TSP	1A2c	GASOIL (FOR NON-ROAD USE)	0.011270589	t/TJ
2023	TSP	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.010392167	t/TJ
2023	TSP	1A2c	HEAVY FUEL OIL (S<0,1%)	0.007294118	t/TJ
2023	TSP	1A2c	HEAVY FUEL OIL (S<1%)	0.035608044	t/TJ
2023	TSP	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.004207361	t/TJ
2023	TSP	1A2c	METHANOL	0.025000000	t/TJ
2023	TSP	1A2c	OTHER FOSSIL LIQUID	0.024481303	t/TJ
2023	TSP	1A2c	OTHER FUEL	0.010000000	t/TJ
2023	TSP	1A2c	OTHER NON-FOSSIL SOLID	0.005757675	t/TJ

2023	TSP	1A2c	OTHER WASTE	0.010000000	t/TJ
2023	TSP	1A2c	RENEWABLE DIESEL	0.007000000	t/TJ
2023	TSP	1A2c	TALL PITCH AND OIL	0.036204314	t/TJ
2023	TSP	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.096502412	t/TJ
2023	TSP	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.002621099	t/TJ
2023	TSP	1A2d	ANIMAL-BASED FUELS	0.000750666	t/TJ
2023	TSP	1A2d	BARK	0.005808773	t/TJ
2023	TSP	1A2d	BIO-FUEL OIL	0.005537865	t/TJ
2023	TSP	1A2d	BIOLOGICAL SLURRY	0.000224079	t/TJ
2023	TSP	1A2d	BLACK LIQUOR	0.008020022	t/TJ
2023	TSP	1A2d	CHIPS FROM ROUNDWOOD	0.008849914	t/TJ
2023	TSP	1A2d	COAL (S=1.0%)	0.001916794	t/TJ
2023	TSP	1A2d	CUTTER CHIPS ETC.	0.000658039	t/TJ
2023	TSP	1A2d	DEMOLITION WOOD	0.000750666	t/TJ
2023	TSP	1A2d	FOREST RESIDUE CHIPS	0.002529488	t/TJ
2023	TSP	1A2d	GASOIL (FOR NON-ROAD USE)	0.003440505	t/TJ
2023	TSP	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.006909619	t/TJ
2023	TSP	1A2d	HEAVY FUEL OIL (S<0,1%)	0.001804078	t/TJ
2023	TSP	1A2d	HEAVY FUEL OIL (S<0,5%)	0.010362834	t/TJ
2023	TSP	1A2d	HEAVY FUEL OIL (S<1%)	0.011167364	t/TJ
2023	TSP	1A2d	HYDROGEN	0.006147271	t/TJ
2023	TSP	1A2d	IMPREGNATED WOOD	0.000750666	t/TJ
2023	TSP	1A2d	INDUSTRIAL WASTE	0.024641284	t/TJ
2023	TSP	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.005931970	t/TJ
2023	TSP	1A2d	LIQUID GAS	0.000000055	t/TJ
2023	TSP	1A2d	METHANOL	0.074191164	t/TJ
2023	TSP	1A2d	MILLED PEAT	0.004202828	t/TJ
2023	TSP	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.009124374	t/TJ
2023	TSP	1A2d	PAPER	0.006340923	t/TJ
2023	TSP	1A2d	PLASTIC WASTE	0.001948146	t/TJ
2023	TSP	1A2d	RECOVERED WOOD	0.002558187	t/TJ
2023	TSP	1A2d	RECYCLED AND WASTE OILS	0.000750666	t/TJ
2023	TSP	1A2d	SAWDUST	0.007370783	t/TJ
2023	TSP	1A2d	SOLID RECOVERED FUEL (SRF)	0.002737504	t/TJ
2023	TSP	1A2d	TALL PITCH AND OIL	0.005668771	t/TJ
2023	TSP	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001735328	t/TJ
2023	TSP	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.010080006	t/TJ
2023	TSP	1A2d	WOOD RESIDUE CHIPS	0.001191674	t/TJ
2023	TSP	1A2d	WOOD STUMP CHIPS	0.000750666	t/TJ
2023	TSP	1A2e	ANIMAL FATS AND OILS	0.001030346	t/TJ
2023	TSP	1A2e	ANIMAL-BASED FUELS	0.200000000	t/TJ
2023	TSP	1A2e	BIO-FUEL OIL	0.019728115	t/TJ
2023	TSP	1A2e	CHIPS FROM ROUNDWOOD	0.003911352	t/TJ
2023	TSP	1A2e	COAL (S=1.0%)	0.022459313	t/TJ
2023	TSP	1A2e	COKE (S=1.0%)	0.002635488	t/TJ
2023	TSP	1A2e	FOREST RESIDUE CHIPS	0.048360632	t/TJ
2023	TSP	1A2e	GASOIL (FOR NON-ROAD USE)	0.004900201	t/TJ
2023	TSP	1A2e	HEAVY FUEL OIL (S<1%)	0.054900827	t/TJ
2023	TSP	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.011045763	t/TJ
2023	TSP	1A2e	MILLED PEAT	0.007560244	t/TJ
2023	TSP	1A2e	MOTOR GASOLINE (S=0.001%)	0.007000000	t/TJ
2023	TSP	1A2e	NAPHTHA	0.007000000	t/TJ
2023	TSP	1A2e	OTHER NON-FOSSIL SOLID	0.053215971	t/TJ
2023	TSP	1A2e	OTHER NON-FOSSIL SOLID	0.003274311	t/TJ
2023	TSP	1A2e	PEAT PELLETS AND BRIQUETTES	0.009919015	t/TJ
2023	TSP	1A2e	RECOVERED WOOD	0.000730963	t/TJ

2023	TSP	1A2e	SAWDUST	0.010000000	t/TJ
2023	TSP	1A2e	SOD PEAT	0.066085703	t/TJ
2023	TSP	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.099275073	t/TJ
2023	TSP	1A2e	WOOD STUMP CHIPS	0.092048056	t/TJ
2023	TSP	1A2f	CHIPS FROM ROUNDWOOD	0.148799459	t/TJ
2023	TSP	1A2f	COAL (S=1.0%)	0.008673953	t/TJ
2023	TSP	1A2f	COKE (S=1.0%)	0.072733477	t/TJ
2023	TSP	1A2f	DIESEL OIL (S=001%)	0.007000000	t/TJ
2023	TSP	1A2f	FOREST RESIDUE CHIPS	0.148799459	t/TJ
2023	TSP	1A2f	GASOIL (FOR NON-ROAD USE)	0.006805587	t/TJ
2023	TSP	1A2f	HEAVY FUEL OIL (S<0,1%)	0.096383840	t/TJ
2023	TSP	1A2f	HEAVY FUEL OIL (S<1%)	0.064835744	t/TJ
2023	TSP	1A2f	INDUSTRIAL WASTE	0.011371683	t/TJ
2023	TSP	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.022350507	t/TJ
2023	TSP	1A2f	MOTOR GASOLINE (S=0.001%)	0.016258347	t/TJ
2023	TSP	1A2f	OTHER FOSSIL LIQUID	0.001228595	t/TJ
2023	TSP	1A2f	OTHER FUEL	0.005284970	t/TJ
2023	TSP	1A2f	OTHER NON-FOSSIL SOLID	0.000117113	t/TJ
2023	TSP	1A2f	OTHER WASTE	0.001624526	t/TJ
2023	TSP	1A2f	PETROLEUM COKE	0.007725713	t/TJ
2023	TSP	1A2f	PLASTIC WASTE	0.000415424	t/TJ
2023	TSP	1A2f	RECYCLED AND WASTE OILS	0.000400909	t/TJ
2023	TSP	1A2f	REED CANARY GRASS	0.001624526	t/TJ
2023	TSP	1A2f	RUBBER WASTE	0.008093266	t/TJ
2023	TSP	1A2f	SAWDUST	0.000117113	t/TJ
2023	TSP	1A2f	SOLID RECOVERED FUEL (SRF)	0.004561857	t/TJ
2023	TSP	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.002342269	t/TJ
2023	TSP	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.013428134	t/TJ
2023	TSP	1A2gvii	LIQUID GAS	0.004141127	t/TJ
2023	TSP	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.004457796	t/TJ
2023	TSP	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000013131	t/TJ
2023	TSP	1A2gviii	BARK	0.044802268	t/TJ
2023	TSP	1A2gviii	BIO PELLETS (NON-WOOD)	0.000027761	t/TJ
2023	TSP	1A2gviii	BIOLOGICAL SLURRY	0.000249837	t/TJ
2023	TSP	1A2gviii	CHIPS FROM ROUNDWOOD	0.002072908	t/TJ
2023	TSP	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.004996737	t/TJ
2023	TSP	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.163880832	t/TJ
2023	TSP	1A2gviii	CUTTER CHIPS ETC.	0.022952072	t/TJ
2023	TSP	1A2gviii	DEMOLITION WOOD	0.000033492	t/TJ
2023	TSP	1A2gviii	DIESEL OIL (S=001%)	0.005176660	t/TJ
2023	TSP	1A2gviii	FOREST RESIDUE CHIPS	0.200000000	t/TJ
2023	TSP	1A2gviii	FOREST RESIDUE CHIPS	0.020453493	t/TJ
2023	TSP	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.007687556	t/TJ
2023	TSP	1A2gviii	HAZARDOUS WASTE	0.000268879	t/TJ
2023	TSP	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.039496913	t/TJ
2023	TSP	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.026338068	t/TJ
2023	TSP	1A2gviii	HEAVY FUEL OIL (S<1%)	0.056948051	t/TJ
2023	TSP	1A2gviii	IMPREGNATED WOOD	0.000722919	t/TJ
2023	TSP	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.006768848	t/TJ
2023	TSP	1A2gviii	MILLED PEAT	0.000200908	t/TJ
2023	TSP	1A2gviii	MUNICIPAL WASTE - unsorted	0.000303923	t/TJ
2023	TSP	1A2gviii	NAPHTHA	0.007744812	t/TJ
2023	TSP	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000973585	t/TJ
2023	TSP	1A2gviii	OTHER HEAVY DISTILLATES	0.032150628	t/TJ
2023	TSP	1A2gviii	OTHER NON-FOSSIL SOLID	0.000162695	t/TJ
2023	TSP	1A2gviii	OTHER NON-FOSSIL SOLID	0.003106943	t/TJ

2023	TSP	1A2gviii	OTHER WASTE	0.000503794	t/TJ
2023	TSP	1A2gviii	OTHER WOOD RESIDUE	0.029293690	t/TJ
2023	TSP	1A2gviii	PLASTIC WASTE	0.000689601	t/TJ
2023	TSP	1A2gviii	RECOVERED WOOD	0.001048217	t/TJ
2023	TSP	1A2gviii	RECYCLED AND WASTE OILS	0.001779897	t/TJ
2023	TSP	1A2gviii	RENEWABLE DIESEL	0.008482909	t/TJ
2023	TSP	1A2gviii	SAWDUST	0.001390664	t/TJ
2023	TSP	1A2gviii	SAWDUST AND CUTTER CHIPS	0.200000000	t/TJ
2023	TSP	1A2gviii	SOD PEAT	0.020757644	t/TJ
2023	TSP	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000110533	t/TJ
2023	TSP	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.028143962	t/TJ
2023	TSP	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.198545897	t/TJ
2023	TSP	1A2gviii	WOOD RESIDUE CHIPS	0.080252154	t/TJ
2023	TSP	1A2gviii	WOOD STUMP CHIPS	0.000366298	t/TJ
2023	TSP	1A3ai(i)	KEROSENE (JET FUEL)	0.002925445	t/TJ
2023	TSP	1A3aii(i)	AVIATION GASOLINE	0.008100000	t/TJ
2023	TSP	1A3aii(i)	KEROSENE (JET FUEL)	0.003134030	t/TJ
2023	TSP	1A3bi	DIESEL OIL (S=001%)	0.005169146	t/TJ
2023	TSP	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000414476	t/TJ
2023	TSP	1A3bi	NATURAL GAS	0.001129783	t/TJ
2023	TSP	1A3bii	DIESEL OIL (S=001%)	0.014122964	t/TJ
2023	TSP	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000410553	t/TJ
2023	TSP	1A3bii	NATURAL GAS	0.001005459	t/TJ
2023	TSP	1A3biii	DIESEL OIL (S=001%)	0.001747461	t/TJ
2023	TSP	1A3biii	NATURAL GAS	0.000371748	t/TJ
2023	TSP	1A3biv	DIESEL OIL (S=001%)	0.028041938	t/TJ
2023	TSP	1A3biv	MOTOR GASOLINE (S=0.001%)	0.005943885	t/TJ
2023	TSP	1A3c	GASOIL (FOR NON-ROAD USE)	0.033949490	t/TJ
2023	TSP	1A3dii	DIESEL OIL (S=001%)	0.102896302	t/TJ
2023	TSP	1A3dii	GASOIL (FOR NON-ROAD USE)	0.028903927	t/TJ
2023	TSP	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.043886546	t/TJ
2023	TSP	1A3dii	MOTOR GASOLINE (S=0.001%)	0.126282895	t/TJ
2023	TSP	1A4ai	BIO-FUEL OIL	0.007000000	t/TJ
2023	TSP	1A4ai	FOREST WOODFUEL	0.016831111	t/TJ
2023	TSP	1A4ai	GASOIL (FOR NON-ROAD USE)	0.005430496	t/TJ
2023	TSP	1A4ai	HEAVY FUEL OIL (S<1%)	0.090000000	t/TJ
2023	TSP	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.007003435	t/TJ
2023	TSP	1A4ai	NAPHTHA	0.000629919	t/TJ
2023	TSP	1A4ai	SOD PEAT	0.352941176	t/TJ
2023	TSP	1A4aii	GASOIL (FOR NON-ROAD USE)	0.010573337	t/TJ
2023	TSP	1A4aii	MOTOR GASOLINE (S=0.001%)	0.046698695	t/TJ
2023	TSP	1A4bi	FOREST WOODFUEL	0.166864305	t/TJ
2023	TSP	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.007000000	t/TJ
2023	TSP	1A4bi	PARAFFIN	0.007000000	t/TJ
2023	TSP	1A4bi	SOD PEAT	0.400000000	t/TJ
2023	TSP	1A4bii	GASOIL (FOR NON-ROAD USE)	0.071916028	t/TJ
2023	TSP	1A4bii	MOTOR GASOLINE (S=0.001%)	0.048091012	t/TJ
2023	TSP	1A4ci	CHIPS FROM ROUNDWOOD	0.096983129	t/TJ
2023	TSP	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.200000000	t/TJ
2023	TSP	1A4ci	COAL (S=1.0%)	0.035000000	t/TJ
2023	TSP	1A4ci	FOREST RESIDUE CHIPS	0.050000000	t/TJ
2023	TSP	1A4ci	FOREST WOODFUEL	0.016666667	t/TJ
2023	TSP	1A4ci	HEAVY FUEL OIL (S<1%)	0.090000000	t/TJ
2023	TSP	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.007000000	t/TJ
2023	TSP	1A4ci	OTHER NON-FOSSIL SOLID	0.016678828	t/TJ
2023	TSP	1A4ci	RECOVERED WOOD	0.023542899	t/TJ

2023	TSP	1A4ci	SOD PEAT	0.394775790	t/TJ
2023	TSP	1A4cii	GASOIL (FOR NON-ROAD USE)	0.010516143	t/TJ
2023	TSP	1A4cii	MOTOR GASOLINE (S=0.001%)	0.132964076	t/TJ
2023	TSP	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.032624459	t/TJ
2023	TSP	1A5a	FOREST WOODFUEL	0.200000000	t/TJ
2023	TSP	1A5a	KEROSENE (JET FUEL)	0.009917755	t/TJ
2023	TSP	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.009544969	t/TJ
2023	TSP	1A5a	OTHER PETROLEUM PRODUCTS	0.007000000	t/TJ

BC Implied emission factors in Finnish air pollutant inventory for 2023

2023	BC	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000002337	t/TJ
2023	BC	1A1a	ANIMAL-BASED FUELS	0.000019257	t/TJ
2023	BC	1A1a	ASPHALTENE	0.000022459	t/TJ
2023	BC	1A1a	BARK	0.000019216	t/TJ
2023	BC	1A1a	BIO PELLETS (NON-WOOD)	0.000000740	t/TJ
2023	BC	1A1a	BIO PYROLYSIS OIL	0.000068900	t/TJ
2023	BC	1A1a	BIO-FUEL OIL	0.000010016	t/TJ
2023	BC	1A1a	BIOLOGICAL SLURRY	0.000078313	t/TJ
2023	BC	1A1a	CHIPS FROM ROUNDWOOD	0.000022065	t/TJ
2023	BC	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000027384	t/TJ
2023	BC	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000017359	t/TJ
2023	BC	1A1a	COAL (S=1.0%)	0.000044724	t/TJ
2023	BC	1A1a	CUTTER CHIPS ETC.	0.000044464	t/TJ
2023	BC	1A1a	DEMOLITION WOOD	0.000011684	t/TJ
2023	BC	1A1a	DIESEL OIL (S=001%)	0.000281400	t/TJ
2023	BC	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000405644	t/TJ
2023	BC	1A1a	FOREST RESIDUE CHIPS	0.000011742	t/TJ
2023	BC	1A1a	FOREST RESIDUE CHIPS	0.000264881	t/TJ
2023	BC	1A1a	GASOIL (FOR NON-ROAD USE)	0.000104838	t/TJ
2023	BC	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.002204547	t/TJ
2023	BC	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000547813	t/TJ
2023	BC	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000753292	t/TJ
2023	BC	1A1a	HEAVY FUEL OIL (S<1%)	0.002280987	t/TJ
2023	BC	1A1a	IMPREGNATED WOOD	0.000009477	t/TJ
2023	BC	1A1a	INDUSTRIAL WASTE	0.000011316	t/TJ
2023	BC	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.000543349	t/TJ
2023	BC	1A1a	LIGNIN	0.000013950	t/TJ
2023	BC	1A1a	MILLED PEAT	0.000018803	t/TJ
2023	BC	1A1a	MOTOR GASOLINE (S=0.001%)	0.000027720	t/TJ
2023	BC	1A1a	MUNICIPAL WASTE - unsorted	0.000000274	t/TJ
2023	BC	1A1a	NAPHTHA	0.000031059	t/TJ
2023	BC	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000025037	t/TJ
2023	BC	1A1a	OTHER FOSSIL SOLID	0.000001951	t/TJ
2023	BC	1A1a	OTHER FUEL	0.000007216	t/TJ
2023	BC	1A1a	OTHER NON-FOSSIL SOLID	0.000017467	t/TJ
2023	BC	1A1a	OTHER NON-FOSSIL SOLID	0.000024159	t/TJ
2023	BC	1A1a	OTHER WASTE	0.000020169	t/TJ
2023	BC	1A1a	OTHER WOOD RESIDUE	0.000009922	t/TJ
2023	BC	1A1a	PAPER	0.000000728	t/TJ
2023	BC	1A1a	PEAT PELLETS AND BRIQUETTES	0.000053793	t/TJ
2023	BC	1A1a	PLASTIC WASTE	0.002399998	t/TJ
2023	BC	1A1a	RECOVERED FUEL (REF 2)	0.000200000	t/TJ
2023	BC	1A1a	RECOVERED WOOD	0.000009860	t/TJ
2023	BC	1A1a	RECYCLED AND WASTE OILS	0.000023484	t/TJ
2023	BC	1A1a	RENEWABLE DIESEL	0.000552577	t/TJ

2023	BC	1A1a	SAWDUST	0.000020225	t/TJ
2023	BC	1A1a	SOD PEAT	0.000308914	t/TJ
2023	BC	1A1a	SOLID RECOVERED FUEL (SRF)	0.000002831	t/TJ
2023	BC	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000032943	t/TJ
2023	BC	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000022858	t/TJ
2023	BC	1A1a	WOOD RESIDUE CHIPS	0.000020916	t/TJ
2023	BC	1A1a	WOOD STUMP CHIPS	0.000016731	t/TJ
2023	BC	1A1b	COKE (S=1.0%)	0.000150000	t/TJ
2023	BC	1A1b	HEAVY FUEL OIL (S<1%)	0.006720000	t/TJ
2023	BC	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000271025	t/TJ
2023	BC	1A1b	OTHER FOSSIL LIQUID	0.000265698	t/TJ
2023	BC	1A1b	OTHER MEDIUM DISTILLATES	0.000028438	t/TJ
2023	BC	1A1b	PETROLEUM COKE	0.000055809	t/TJ
2023	BC	1A2a	COKE (S=1.0%)	0.000026880	t/TJ
2023	BC	1A2a	DIESEL OIL (S=001%)	0.000281400	t/TJ
2023	BC	1A2a	GASOIL (FOR NON-ROAD USE)	0.000829300	t/TJ
2023	BC	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.000248315	t/TJ
2023	BC	1A2a	OTHER FOSSIL SOLID	0.000219378	t/TJ
2023	BC	1A2a	WOOD RESIDUE CHIPS	0.000057121	t/TJ
2023	BC	1A2b	COAL (S=1.0%)	0.000051554	t/TJ
2023	BC	1A2b	COKE (S=1.0%)	0.000018638	t/TJ
2023	BC	1A2b	DIESEL OIL (S=001%)	0.000281400	t/TJ
2023	BC	1A2b	GASOIL (FOR NON-ROAD USE)	0.000281400	t/TJ
2023	BC	1A2b	HEAVY FUEL OIL (S<1%)	0.002655185	t/TJ
2023	BC	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000051540	t/TJ
2023	BC	1A2b	MOTOR GASOLINE (S=0.001%)	0.000197638	t/TJ
2023	BC	1A2b	OTHER HEAVY DISTILLATES	0.000292237	t/TJ
2023	BC	1A2c	DIESEL OIL (S=001%)	0.000281400	t/TJ
2023	BC	1A2c	GASOIL (FOR NON-ROAD USE)	0.000453078	t/TJ
2023	BC	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.001745884	t/TJ
2023	BC	1A2c	HEAVY FUEL OIL (S<0,1%)	0.001225412	t/TJ
2023	BC	1A2c	HEAVY FUEL OIL (S<1%)	0.003521944	t/TJ
2023	BC	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000169136	t/TJ
2023	BC	1A2c	METHANOL	0.000021000	t/TJ
2023	BC	1A2c	OTHER FOSSIL LIQUID	0.000767734	t/TJ
2023	BC	1A2c	OTHER FUEL	0.000105000	t/TJ
2023	BC	1A2c	OTHER NON-FOSSIL SOLID	0.000066501	t/TJ
2023	BC	1A2c	OTHER WASTE	0.000873255	t/TJ
2023	BC	1A2c	RENEWABLE DIESEL	0.000281400	t/TJ
2023	BC	1A2c	TALL PITCH AND OIL	0.001576404	t/TJ
2023	BC	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000055730	t/TJ
2023	BC	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000030274	t/TJ
2023	BC	1A2d	ANIMAL-BASED FUELS	0.000540480	t/TJ
2023	BC	1A2d	BARK	0.000042623	t/TJ
2023	BC	1A2d	BIO-FUEL OIL	0.000199363	t/TJ
2023	BC	1A2d	BIOLOGICAL SLURRY	0.000001928	t/TJ
2023	BC	1A2d	CHIPS FROM ROUNDWOOD	0.000041166	t/TJ
2023	BC	1A2d	COAL (S=1.0%)	0.000010542	t/TJ
2023	BC	1A2d	CUTTER CHIPS ETC.	0.000007600	t/TJ
2023	BC	1A2d	DEMOLITION WOOD	0.000008670	t/TJ
2023	BC	1A2d	FOREST RESIDUE CHIPS	0.000015249	t/TJ
2023	BC	1A2d	GASOIL (FOR NON-ROAD USE)	0.000138308	t/TJ
2023	BC	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.003731996	t/TJ
2023	BC	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000139308	t/TJ
2023	BC	1A2d	HEAVY FUEL OIL (S<0,5%)	0.001740956	t/TJ
2023	BC	1A2d	HEAVY FUEL OIL (S<1%)	0.000859174	t/TJ

2023	BC	1A2d	IMPREGNATED WOOD	0.000008670	t/TJ
2023	BC	1A2d	INDUSTRIAL WASTE	0.000217748	t/TJ
2023	BC	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.000232155	t/TJ
2023	BC	1A2d	METHANOL	0.000205108	t/TJ
2023	BC	1A2d	MILLED PEAT	0.000048543	t/TJ
2023	BC	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000105387	t/TJ
2023	BC	1A2d	PAPER	0.000073238	t/TJ
2023	BC	1A2d	PLASTIC WASTE	0.000467554	t/TJ
2023	BC	1A2d	RECOVERED WOOD	0.000029547	t/TJ
2023	BC	1A2d	RECYCLED AND WASTE OILS	0.000168797	t/TJ
2023	BC	1A2d	SAWDUST	0.000083529	t/TJ
2023	BC	1A2d	SOLID RECOVERED FUEL (SRF)	0.000002738	t/TJ
2023	BC	1A2d	TALL PITCH AND OIL	0.001946258	t/TJ
2023	BC	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000019635	t/TJ
2023	BC	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005821	t/TJ
2023	BC	1A2d	WOOD RESIDUE CHIPS	0.000011047	t/TJ
2023	BC	1A2d	WOOD STUMP CHIPS	0.000008670	t/TJ
2023	BC	1A2e	ANIMAL FATS AND OILS	0.000129824	t/TJ
2023	BC	1A2e	ANIMAL-BASED FUELS	0.007200000	t/TJ
2023	BC	1A2e	BIO-FUEL OIL	0.000126000	t/TJ
2023	BC	1A2e	CHIPS FROM ROUNDWOOD	0.000045176	t/TJ
2023	BC	1A2e	COAL (S=1.0%)	0.000061763	t/TJ
2023	BC	1A2e	COKE (S=1.0%)	0.000002635	t/TJ
2023	BC	1A2e	FOREST RESIDUE CHIPS	0.000038848	t/TJ
2023	BC	1A2e	GASOIL (FOR NON-ROAD USE)	0.000196988	t/TJ
2023	BC	1A2e	HEAVY FUEL OIL (S<1%)	0.008092445	t/TJ
2023	BC	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.000444040	t/TJ
2023	BC	1A2e	MILLED PEAT	0.000017738	t/TJ
2023	BC	1A2e	MOTOR GASOLINE (S=0.001%)	0.000027720	t/TJ
2023	BC	1A2e	NAPHTHA	0.000027720	t/TJ
2023	BC	1A2e	OTHER NON-FOSSIL SOLID	0.000614644	t/TJ
2023	BC	1A2e	OTHER NON-FOSSIL SOLID	0.000037818	t/TJ
2023	BC	1A2e	PEAT PELLETS AND BRIQUETTES	0.000025459	t/TJ
2023	BC	1A2e	RECOVERED WOOD	0.000008443	t/TJ
2023	BC	1A2e	SAWDUST	0.000115500	t/TJ
2023	BC	1A2e	SOD PEAT	0.000109041	t/TJ
2023	BC	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000093386	t/TJ
2023	BC	1A2e	WOOD STUMP CHIPS	0.000053158	t/TJ
2023	BC	1A2f	CHIPS FROM ROUNDWOOD	0.000085932	t/TJ
2023	BC	1A2f	COAL (S=1.0%)	0.000003200	t/TJ
2023	BC	1A2f	COKE (S=1.0%)	0.000072733	t/TJ
2023	BC	1A2f	DIESEL OIL (S=0.001%)	0.000281400	t/TJ
2023	BC	1A2f	FOREST RESIDUE CHIPS	0.000085932	t/TJ
2023	BC	1A2f	GASOIL (FOR NON-ROAD USE)	0.000273585	t/TJ
2023	BC	1A2f	HEAVY FUEL OIL (S<0,1%)	0.016192485	t/TJ
2023	BC	1A2f	HEAVY FUEL OIL (S<1%)	0.010178455	t/TJ
2023	BC	1A2f	INDUSTRIAL WASTE	0.000068230	t/TJ
2023	BC	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.000898490	t/TJ
2023	BC	1A2f	MOTOR GASOLINE (S=0.001%)	0.000064383	t/TJ
2023	BC	1A2f	OTHER FOSSIL LIQUID	0.000230484	t/TJ
2023	BC	1A2f	OTHER FUEL	0.000061041	t/TJ
2023	BC	1A2f	OTHER NON-FOSSIL SOLID	0.000001353	t/TJ
2023	BC	1A2f	OTHER WASTE	0.000141862	t/TJ
2023	BC	1A2f	PETROLEUM COKE	0.000056236	t/TJ
2023	BC	1A2f	PLASTIC WASTE	0.000099702	t/TJ
2023	BC	1A2f	RECYCLED AND WASTE OILS	0.000068437	t/TJ

2023	BC	1A2f	REED CANARY GRASS	0.000018763	t/TJ
2023	BC	1A2f	RUBBER WASTE	0.001924983	t/TJ
2023	BC	1A2f	SAWDUST	0.000001353	t/TJ
2023	BC	1A2f	SOLID RECOVERED FUEL (SRF)	0.000004562	t/TJ
2023	BC	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000001353	t/TJ
2023	BC	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.008221993	t/TJ
2023	BC	1A2gvii	LIQUID GAS	0.000207056	t/TJ
2023	BC	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000222890	t/TJ
2023	BC	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000000152	t/TJ
2023	BC	1A2gviii	BARK	0.000813654	t/TJ
2023	BC	1A2gviii	BIO PELLETS (NON-WOOD)	0.000000239	t/TJ
2023	BC	1A2gviii	BIOLOGICAL SLURRY	0.000002149	t/TJ
2023	BC	1A2gviii	CHIPS FROM ROUNDWOOD	0.000004986	t/TJ
2023	BC	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.000002886	t/TJ
2023	BC	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000094641	t/TJ
2023	BC	1A2gviii	CUTTER CHIPS ETC.	0.000160014	t/TJ
2023	BC	1A2gviii	DEMOLITION WOOD	0.000000387	t/TJ
2023	BC	1A2gviii	DIESEL OIL (S=001%)	0.000208102	t/TJ
2023	BC	1A2gviii	FOREST RESIDUE CHIPS	0.000330000	t/TJ
2023	BC	1A2gviii	FOREST RESIDUE CHIPS	0.000014262	t/TJ
2023	BC	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.000308888	t/TJ
2023	BC	1A2gviii	HAZARDOUS WASTE	0.000030647	t/TJ
2023	BC	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.006635481	t/TJ
2023	BC	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.004424795	t/TJ
2023	BC	1A2gviii	HEAVY FUEL OIL (S<1%)	0.009596605	t/TJ
2023	BC	1A2gviii	IMPREGNATED WOOD	0.000008350	t/TJ
2023	BC	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.000246414	t/TJ
2023	BC	1A2gviii	MILLED PEAT	0.000001104	t/TJ
2023	BC	1A2gviii	MUNICIPAL WASTE - unsorted	0.000000270	t/TJ
2023	BC	1A2gviii	NAPHTHA	0.000030669	t/TJ
2023	BC	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000011245	t/TJ
2023	BC	1A2gviii	OTHER HEAVY DISTILLATES	0.001621305	t/TJ
2023	BC	1A2gviii	OTHER NON-FOSSIL SOLID	0.000035885	t/TJ
2023	BC	1A2gviii	OTHER NON-FOSSIL SOLID	0.000001879	t/TJ
2023	BC	1A2gviii	OTHER WASTE	0.000043958	t/TJ
2023	BC	1A2gviii	OTHER WOOD RESIDUE	0.000337102	t/TJ
2023	BC	1A2gviii	PLASTIC WASTE	0.000165489	t/TJ
2023	BC	1A2gviii	RECOVERED WOOD	0.000010898	t/TJ
2023	BC	1A2gviii	RECYCLED AND WASTE OILS	0.000400233	t/TJ
2023	BC	1A2gviii	RENEWABLE DIESEL	0.000341013	t/TJ
2023	BC	1A2gviii	SAWDUST	0.000016062	t/TJ
2023	BC	1A2gviii	SAWDUST AND CUTTER CHIPS	0.005082000	t/TJ
2023	BC	1A2gviii	SOD PEAT	0.000134480	t/TJ
2023	BC	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000000111	t/TJ
2023	BC	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000122701	t/TJ
2023	BC	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000305374	t/TJ
2023	BC	1A2gviii	WOOD RESIDUE CHIPS	0.000173320	t/TJ
2023	BC	1A2gviii	WOOD STUMP CHIPS	0.000000212	t/TJ
2023	BC	1A3ai(i)	KEROSENE (JET FUEL)	0.001462722	t/TJ
2023	BC	1A3aii(i)	AVIATION GASOLINE	0.004050000	t/TJ
2023	BC	1A3aii(i)	KEROSENE (JET FUEL)	0.001567015	t/TJ
2023	BC	1A3bi	DIESEL OIL (S=001%)	0.002946413	t/TJ
2023	BC	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000049737	t/TJ
2023	BC	1A3bii	DIESEL OIL (S=001%)	0.007767630	t/TJ
2023	BC	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000020528	t/TJ
2023	BC	1A3biii	DIESEL OIL (S=001%)	0.000926154	t/TJ

2023	BC	1A3biv	DIESEL OIL (S=001%)	0.015983905	t/TJ
2023	BC	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000653827	t/TJ
2023	BC	1A3c	GASOIL (FOR NON-ROAD USE)	0.019889488	t/TJ
2023	BC	1A3dii	DIESEL OIL (S=001%)	0.056592966	t/TJ
2023	BC	1A3dii	GASOIL (FOR NON-ROAD USE)	0.008960217	t/TJ
2023	BC	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.005266386	t/TJ
2023	BC	1A3dii	MOTOR GASOLINE (S=0.001%)	0.006314145	t/TJ
2023	BC	1A4ai	BIO-FUEL OIL	0.000252000	t/TJ
2023	BC	1A4ai	FOREST WOODFUEL	0.000503700	t/TJ
2023	BC	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000218306	t/TJ
2023	BC	1A4ai	HEAVY FUEL OIL (S<1%)	0.015120000	t/TJ
2023	BC	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000281364	t/TJ
2023	BC	1A4ai	NAPHTHA	0.000002494	t/TJ
2023	BC	1A4ai	SOD PEAT	0.000582353	t/TJ
2023	BC	1A4aii	GASOIL (FOR NON-ROAD USE)	0.004335068	t/TJ
2023	BC	1A4aii	MOTOR GASOLINE (S=0.001%)	0.002334935	t/TJ
2023	BC	1A4bi	FOREST WOODFUEL	0.045526941	t/TJ
2023	BC	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.001641500	t/TJ
2023	BC	1A4bi	PARAFFIN	0.003528000	t/TJ
2023	BC	1A4bi	SOD PEAT	0.010560000	t/TJ
2023	BC	1A4bii	GASOIL (FOR NON-ROAD USE)	0.029485571	t/TJ
2023	BC	1A4bii	MOTOR GASOLINE (S=0.001%)	0.002404551	t/TJ
2023	BC	1A4ci	CHIPS FROM ROUNDWOOD	0.001120155	t/TJ
2023	BC	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.000115500	t/TJ
2023	BC	1A4ci	COAL (S=1.0%)	0.000075987	t/TJ
2023	BC	1A4ci	FOREST RESIDUE CHIPS	0.000115500	t/TJ
2023	BC	1A4ci	FOREST WOODFUEL	0.000500000	t/TJ
2023	BC	1A4ci	HEAVY FUEL OIL (S<1%)	0.015120000	t/TJ
2023	BC	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000281400	t/TJ
2023	BC	1A4ci	OTHER NON-FOSSIL SOLID	0.000192640	t/TJ
2023	BC	1A4ci	RECOVERED WOOD	0.000271920	t/TJ
2023	BC	1A4ci	SOD PEAT	0.000651380	t/TJ
2023	BC	1A4cii	GASOIL (FOR NON-ROAD USE)	0.006050243	t/TJ
2023	BC	1A4cii	MOTOR GASOLINE (S=0.001%)	0.006648204	t/TJ
2023	BC	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.010113582	t/TJ
2023	BC	1A5a	FOREST WOODFUEL	0.002800000	t/TJ
2023	BC	1A5a	KEROSENE (JET FUEL)	0.004760522	t/TJ
2023	BC	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.001078305	t/TJ
2023	BC	1A5a	OTHER PETROLEUM PRODUCTS	0.000047040	t/TJ

CO Implied emission factors in Finnish air pollutant inventory for 2023

2023	CO	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.099915985	t/TJ
2023	CO	1A1a	ANIMAL-BASED FUELS	0.006842325	t/TJ
2023	CO	1A1a	ASPHALTENE	0.003513032	t/TJ
2023	CO	1A1a	BARK	0.058107977	t/TJ
2023	CO	1A1a	BIO PELLETS (NON-WOOD)	0.150000000	t/TJ
2023	CO	1A1a	BIO PYROLYSIS OIL	0.020000000	t/TJ
2023	CO	1A1a	BIO-FUEL OIL	0.020000000	t/TJ
2023	CO	1A1a	BIOLOGICAL SLURRY	0.150000000	t/TJ
2023	CO	1A1a	BLAST FURNACE GAS	0.020000000	t/TJ
2023	CO	1A1a	CHIPS FROM ROUNDWOOD	0.114076767	t/TJ
2023	CO	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.021855943	t/TJ
2023	CO	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.219498172	t/TJ
2023	CO	1A1a	COAL (S=1.0%)	0.005195154	t/TJ
2023	CO	1A1a	COKE OVEN GAS	0.020000000	t/TJ

2023	CO	1A1a	CUTTER CHIPS ETC.	0.219183155	t/TJ
2023	CO	1A1a	DEINKING WASTE	0.021971764	t/TJ
2023	CO	1A1a	DEMOLITION WOOD	0.027371882	t/TJ
2023	CO	1A1a	DIESEL OIL (S=001%)	0.017347395	t/TJ
2023	CO	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.500000000	t/TJ
2023	CO	1A1a	FOREST RESIDUE CHIPS	0.297368138	t/TJ
2023	CO	1A1a	FOREST RESIDUE CHIPS	0.081319267	t/TJ
2023	CO	1A1a	GASOIL (FOR NON-ROAD USE)	0.018086360	t/TJ
2023	CO	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000556726	t/TJ
2023	CO	1A1a	HEAVY FUEL OIL (S<0,1%)	0.017782960	t/TJ
2023	CO	1A1a	HEAVY FUEL OIL (S<0,5%)	0.020265845	t/TJ
2023	CO	1A1a	HEAVY FUEL OIL (S<1%)	0.014868013	t/TJ
2023	CO	1A1a	HYDROGEN	0.020000000	t/TJ
2023	CO	1A1a	IMPREGNATED WOOD	0.005998264	t/TJ
2023	CO	1A1a	INDUSTRIAL WASTE	0.006205684	t/TJ
2023	CO	1A1a	LANDFILL GAS	0.029653034	t/TJ
2023	CO	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.049028119	t/TJ
2023	CO	1A1a	LIGNIN	0.003243564	t/TJ
2023	CO	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.019319158	t/TJ
2023	CO	1A1a	LIQUID GAS	0.025778342	t/TJ
2023	CO	1A1a	MILLED PEAT	0.040184987	t/TJ
2023	CO	1A1a	MOTOR GASOLINE (S=0.001%)	0.020000000	t/TJ
2023	CO	1A1a	MUNICIPAL WASTE - unsorted	0.006616494	t/TJ
2023	CO	1A1a	NAPHTHA	0.020000000	t/TJ
2023	CO	1A1a	NATURAL GAS	0.008168046	t/TJ
2023	CO	1A1a	NATURAL GAS	0.022060021	t/TJ
2023	CO	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.105700734	t/TJ
2023	CO	1A1a	OTHER FOSSIL GAS	0.010633491	t/TJ
2023	CO	1A1a	OTHER FOSSIL SOLID	0.017860751	t/TJ
2023	CO	1A1a	OTHER FUEL	0.125055112	t/TJ
2023	CO	1A1a	OTHER NON-FOSSIL GAS	0.145701723	t/TJ
2023	CO	1A1a	OTHER NON-FOSSIL SOLID	0.497908250	t/TJ
2023	CO	1A1a	OTHER NON-FOSSIL SOLID	0.493596285	t/TJ
2023	CO	1A1a	OTHER WASTE	0.008827754	t/TJ
2023	CO	1A1a	OTHER WOOD RESIDUE	0.150501950	t/TJ
2023	CO	1A1a	PAPER	0.314807874	t/TJ
2023	CO	1A1a	PEAT PELLETS AND BRIQUETTES	0.140513199	t/TJ
2023	CO	1A1a	PLASTIC WASTE	0.182840148	t/TJ
2023	CO	1A1a	RECOVERED FUEL (REF 2)	0.400000000	t/TJ
2023	CO	1A1a	RECOVERED WOOD	0.032391132	t/TJ
2023	CO	1A1a	RECYCLED AND WASTE OILS	0.006605606	t/TJ
2023	CO	1A1a	RENEWABLE DIESEL	0.020000000	t/TJ
2023	CO	1A1a	SAWDUST	0.223388415	t/TJ
2023	CO	1A1a	SOD PEAT	0.144953814	t/TJ
2023	CO	1A1a	SOLID RECOVERED FUEL (SRF)	0.018229273	t/TJ
2023	CO	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.141942115	t/TJ
2023	CO	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.226839131	t/TJ
2023	CO	1A1a	WOOD RESIDUE CHIPS	0.254231053	t/TJ
2023	CO	1A1a	WOOD STUMP CHIPS	0.106135010	t/TJ
2023	CO	1A1b	COKE (S=1.0%)	1.500000000	t/TJ
2023	CO	1A1b	HEAVY FUEL OIL (S<1%)	0.001524648	t/TJ
2023	CO	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.019980276	t/TJ
2023	CO	1A1b	LIQUID GAS	0.001524648	t/TJ
2023	CO	1A1b	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A1b	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A1b	OTHER FOSSIL LIQUID	0.020000000	t/TJ

2023	CO	1A1b	OTHER MEDIUM DISTILLATES	0.020000000	t/TJ
2023	CO	1A1b	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2023	CO	1A1b	PETROLEUM COKE	0.030000000	t/TJ
2023	CO	1A1b	REFINERY GAS	0.020000000	t/TJ
2023	CO	1A1b	REFINERY GASES	0.002090128	t/TJ
2023	CO	1A1b	SULPHUR CONCENTRATE	0.050000000	t/TJ
2023	CO	1A2a	BLAST FURNACE GAS	0.020000000	t/TJ
2023	CO	1A2a	COKE (S=1.0%)	0.300916333	t/TJ
2023	CO	1A2a	COKE OVEN GAS	0.020000000	t/TJ
2023	CO	1A2a	DIESEL OIL (S=001%)	0.020000000	t/TJ
2023	CO	1A2a	GASOIL (FOR NON-ROAD USE)	0.022350335	t/TJ
2023	CO	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.012580864	t/TJ
2023	CO	1A2a	LIQUID GAS	0.021400477	t/TJ
2023	CO	1A2a	NATURAL GAS	0.019835920	t/TJ
2023	CO	1A2a	OTHER FOSSIL SOLID	1.500000000	t/TJ
2023	CO	1A2a	WOOD RESIDUE CHIPS	0.060798548	t/TJ
2023	CO	1A2b	COAL (S=1.0%)	0.030000000	t/TJ
2023	CO	1A2b	COKE (S=1.0%)	0.020000000	t/TJ
2023	CO	1A2b	DIESEL OIL (S=001%)	0.020000000	t/TJ
2023	CO	1A2b	GASOIL (FOR NON-ROAD USE)	0.020000000	t/TJ
2023	CO	1A2b	HEAVY FUEL OIL (S<1%)	0.020000000	t/TJ
2023	CO	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.020346819	t/TJ
2023	CO	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.020000000	t/TJ
2023	CO	1A2b	LIQUID GAS	0.189980716	t/TJ
2023	CO	1A2b	MOTOR GASOLINE (S=0.001%)	0.020000000	t/TJ
2023	CO	1A2b	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A2b	OTHER HEAVY DISTILLATES	0.020000000	t/TJ
2023	CO	1A2c	AROMATIC GAS	0.020000000	t/TJ
2023	CO	1A2c	DIESEL OIL (S=001%)	221.347761928	t/TJ
2023	CO	1A2c	GASOIL (FOR NON-ROAD USE)	0.020000000	t/TJ
2023	CO	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.009213588	t/TJ
2023	CO	1A2c	HEAVY FUEL OIL (S<0,1%)	0.020000000	t/TJ
2023	CO	1A2c	HEAVY FUEL OIL (S<1%)	0.019720626	t/TJ
2023	CO	1A2c	HYDROGEN	0.020000000	t/TJ
2023	CO	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.017675369	t/TJ
2023	CO	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.020000000	t/TJ
2023	CO	1A2c	LIQUID GAS	0.019965125	t/TJ
2023	CO	1A2c	METHANOL	0.020000000	t/TJ
2023	CO	1A2c	NATURAL GAS	0.015650409	t/TJ
2023	CO	1A2c	OTHER FOSSIL GAS	0.020000000	t/TJ
2023	CO	1A2c	OTHER FOSSIL LIQUID	0.020000000	t/TJ
2023	CO	1A2c	OTHER FUEL	0.150000000	t/TJ
2023	CO	1A2c	OTHER NON-FOSSIL SOLID	0.500000000	t/TJ
2023	CO	1A2c	OTHER WASTE	0.150000000	t/TJ
2023	CO	1A2c	REFINERY GASES	0.020000000	t/TJ
2023	CO	1A2c	RENEWABLE DIESEL	0.020000000	t/TJ
2023	CO	1A2c	TALL PITCH AND OIL	0.019578087	t/TJ
2023	CO	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.199000689	t/TJ
2023	CO	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.201810356	t/TJ
2023	CO	1A2d	ANIMAL-BASED FUELS	0.005267201	t/TJ
2023	CO	1A2d	AROMATIC GAS	0.017205355	t/TJ
2023	CO	1A2d	BARK	0.058531498	t/TJ
2023	CO	1A2d	BIO-FUEL OIL	0.020000000	t/TJ
2023	CO	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.027852146	t/TJ
2023	CO	1A2d	BIOLOGICAL SLURRY	0.062065004	t/TJ
2023	CO	1A2d	BLACK LIQUOR	0.081612750	t/TJ

2023	CO	1A2d	CHIPS FROM ROUNDWOOD	0.198511050	t/TJ
2023	CO	1A2d	COAL (S=1.0%)	0.005082940	t/TJ
2023	CO	1A2d	CUTTER CHIPS ETC.	0.055432017	t/TJ
2023	CO	1A2d	DEMOLITION WOOD	0.005267201	t/TJ
2023	CO	1A2d	FOREST RESIDUE CHIPS	0.039102862	t/TJ
2023	CO	1A2d	GASOIL (FOR NON-ROAD USE)	0.016573761	t/TJ
2023	CO	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.032941985	t/TJ
2023	CO	1A2d	HEAVY FUEL OIL (S<0,1%)	0.009454643	t/TJ
2023	CO	1A2d	HEAVY FUEL OIL (S<0,5%)	0.020000000	t/TJ
2023	CO	1A2d	HEAVY FUEL OIL (S<1%)	0.026660944	t/TJ
2023	CO	1A2d	HYDROGEN	0.020000000	t/TJ
2023	CO	1A2d	IMPREGNATED WOOD	0.005267201	t/TJ
2023	CO	1A2d	INDUSTRIAL WASTE	0.005086775	t/TJ
2023	CO	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.031776224	t/TJ
2023	CO	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.019999136	t/TJ
2023	CO	1A2d	LIQUID GAS	0.020002308	t/TJ
2023	CO	1A2d	METHANOL	0.299626800	t/TJ
2023	CO	1A2d	MILLED PEAT	0.048722361	t/TJ
2023	CO	1A2d	NATURAL GAS	0.030027231	t/TJ
2023	CO	1A2d	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.150000000	t/TJ
2023	CO	1A2d	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2023	CO	1A2d	OTHER WOOD RESIDUE	0.500000000	t/TJ
2023	CO	1A2d	PAPER	0.309143562	t/TJ
2023	CO	1A2d	PLASTIC WASTE	0.005126786	t/TJ
2023	CO	1A2d	RECOVERED WOOD	0.047082065	t/TJ
2023	CO	1A2d	RECYCLED AND WASTE OILS	0.005267201	t/TJ
2023	CO	1A2d	SAWDUST	0.432844921	t/TJ
2023	CO	1A2d	SOLID RECOVERED FUEL (SRF)	0.025875646	t/TJ
2023	CO	1A2d	TALL PITCH AND OIL	0.038688222	t/TJ
2023	CO	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.206792754	t/TJ
2023	CO	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.557042915	t/TJ
2023	CO	1A2d	WOOD RESIDUE CHIPS	0.032072056	t/TJ
2023	CO	1A2d	WOOD STUMP CHIPS	0.017557338	t/TJ
2023	CO	1A2e	ANIMAL FATS AND OILS	0.001107975	t/TJ
2023	CO	1A2e	ANIMAL-BASED FUELS	0.400000000	t/TJ
2023	CO	1A2e	BIO-FUEL OIL	0.010000000	t/TJ
2023	CO	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.020000000	t/TJ
2023	CO	1A2e	CHIPS FROM ROUNDWOOD	0.500000000	t/TJ
2023	CO	1A2e	COAL (S=1.0%)	0.030000000	t/TJ
2023	CO	1A2e	COKE (S=1.0%)	0.050000000	t/TJ
2023	CO	1A2e	FOREST RESIDUE CHIPS	0.249433400	t/TJ
2023	CO	1A2e	GASOIL (FOR NON-ROAD USE)	0.021828350	t/TJ
2023	CO	1A2e	HEAVY FUEL OIL (S<1%)	0.016751311	t/TJ
2023	CO	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.020285526	t/TJ
2023	CO	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.020000000	t/TJ
2023	CO	1A2e	LIQUID GAS	0.013512868	t/TJ
2023	CO	1A2e	MILLED PEAT	0.070216450	t/TJ
2023	CO	1A2e	MOTOR GASOLINE (S=0.001%)	0.020000000	t/TJ
2023	CO	1A2e	NAPHTHA	0.020000000	t/TJ
2023	CO	1A2e	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A2e	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A2e	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2023	CO	1A2e	OTHER NON-FOSSIL SOLID	0.500000000	t/TJ
2023	CO	1A2e	OTHER NON-FOSSIL SOLID	0.486188951	t/TJ
2023	CO	1A2e	PEAT PELLETS AND BRIQUETTES	0.050000000	t/TJ

2023	CO	1A2e	RECOVERED WOOD	0.150000000	t/TJ
2023	CO	1A2e	SAWDUST	0.500000000	t/TJ
2023	CO	1A2e	SOD PEAT	0.500000000	t/TJ
2023	CO	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.387449574	t/TJ
2023	CO	1A2e	WOOD STUMP CHIPS	0.500000000	t/TJ
2023	CO	1A2f	CHIPS FROM ROUNDWOOD	0.400000000	t/TJ
2023	CO	1A2f	COAL (S=1.0%)	0.929027058	t/TJ
2023	CO	1A2f	COKE (S=1.0%)	0.002915083	t/TJ
2023	CO	1A2f	COKE OVEN GAS	0.020000000	t/TJ
2023	CO	1A2f	DIESEL OIL (S=001%)	0.020000000	t/TJ
2023	CO	1A2f	FOREST RESIDUE CHIPS	0.400000000	t/TJ
2023	CO	1A2f	GASOIL (FOR NON-ROAD USE)	0.020190267	t/TJ
2023	CO	1A2f	HEAVY FUEL OIL (S<0,1%)	0.020000000	t/TJ
2023	CO	1A2f	HEAVY FUEL OIL (S<1%)	0.021100609	t/TJ
2023	CO	1A2f	INDUSTRIAL WASTE	0.150000000	t/TJ
2023	CO	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.124542789	t/TJ
2023	CO	1A2f	LIQUID GAS	0.015682187	t/TJ
2023	CO	1A2f	MOTOR GASOLINE (S=0.001%)	0.020000000	t/TJ
2023	CO	1A2f	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A2f	NATURAL GAS	0.031246156	t/TJ
2023	CO	1A2f	OTHER FOSSIL GAS	0.011160035	t/TJ
2023	CO	1A2f	OTHER FOSSIL LIQUID	0.020000000	t/TJ
2023	CO	1A2f	OTHER FUEL	0.150000000	t/TJ
2023	CO	1A2f	OTHER NON-FOSSIL GAS	0.020000000	t/TJ
2023	CO	1A2f	OTHER NON-FOSSIL SOLID	1.118663628	t/TJ
2023	CO	1A2f	OTHER WASTE	0.150000000	t/TJ
2023	CO	1A2f	PETROLEUM COKE	1.125865922	t/TJ
2023	CO	1A2f	PLASTIC WASTE	0.150000000	t/TJ
2023	CO	1A2f	RECYCLED AND WASTE OILS	0.026801162	t/TJ
2023	CO	1A2f	REED CANARY GRASS	0.500000000	t/TJ
2023	CO	1A2f	RUBBER WASTE	1.500000000	t/TJ
2023	CO	1A2f	SAWDUST	1.118663628	t/TJ
2023	CO	1A2f	SOLID RECOVERED FUEL (SRF)	0.250000000	t/TJ
2023	CO	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.894930903	t/TJ
2023	CO	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.276846484	t/TJ
2023	CO	1A2gvii	LIQUID GAS	0.951853792	t/TJ
2023	CO	1A2gvii	MOTOR GASOLINE (S=0.001%)	24.848081991	t/TJ
2023	CO	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.001465249	t/TJ
2023	CO	1A2gviii	BARK	0.294433995	t/TJ
2023	CO	1A2gviii	BIO PELLETS (NON-WOOD)	0.014471467	t/TJ
2023	CO	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.243954180	t/TJ
2023	CO	1A2gviii	BIOLOGICAL SLURRY	0.016054015	t/TJ
2023	CO	1A2gviii	CHIPS FROM ROUNDWOOD	0.063335297	t/TJ
2023	CO	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.053513384	t/TJ
2023	CO	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.500000000	t/TJ
2023	CO	1A2gviii	CUTTER CHIPS ETC.	0.534179779	t/TJ
2023	CO	1A2gviii	DEMOLITION WOOD	0.000626946	t/TJ
2023	CO	1A2gviii	DIESEL OIL (S=001%)	0.545380707	t/TJ
2023	CO	1A2gviii	FOREST RESIDUE CHIPS	0.400000000	t/TJ
2023	CO	1A2gviii	FOREST RESIDUE CHIPS	0.180325028	t/TJ
2023	CO	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.020204003	t/TJ
2023	CO	1A2gviii	HAZARDOUS WASTE	0.003056555	t/TJ
2023	CO	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.020000000	t/TJ
2023	CO	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.020000000	t/TJ
2023	CO	1A2gviii	HEAVY FUEL OIL (S<1%)	0.018439751	t/TJ
2023	CO	1A2gviii	IMPREGNATED WOOD	0.001348432	t/TJ

2023	CO	1A2gviii	LANDFILL GAS	0.232977841	t/TJ
2023	CO	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.027088793	t/TJ
2023	CO	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.029969843	t/TJ
2023	CO	1A2gviii	LIQUID GAS	0.019557527	t/TJ
2023	CO	1A2gviii	MILLED PEAT	0.041768932	t/TJ
2023	CO	1A2gviii	MUNICIPAL WASTE - unsorted	0.005714273	t/TJ
2023	CO	1A2gviii	NAPHTHA	0.020000000	t/TJ
2023	CO	1A2gviii	NATURAL GAS	0.029288889	t/TJ
2023	CO	1A2gviii	NATURAL GAS	0.023624614	t/TJ
2023	CO	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.143236300	t/TJ
2023	CO	1A2gviii	OTHER HEAVY DISTILLATES	0.020000000	t/TJ
2023	CO	1A2gviii	OTHER NON-FOSSIL GAS	0.042543157	t/TJ
2023	CO	1A2gviii	OTHER NON-FOSSIL SOLID	0.500000000	t/TJ
2023	CO	1A2gviii	OTHER NON-FOSSIL SOLID	0.198343166	t/TJ
2023	CO	1A2gviii	OTHER WASTE	0.001040505	t/TJ
2023	CO	1A2gviii	OTHER WOOD RESIDUE	0.742589913	t/TJ
2023	CO	1A2gviii	PLASTIC WASTE	0.001301612	t/TJ
2023	CO	1A2gviii	RECOVERED WOOD	0.037056625	t/TJ
2023	CO	1A2gviii	RECYCLED AND WASTE OILS	0.004613010	t/TJ
2023	CO	1A2gviii	RENEWABLE DIESEL	0.020000000	t/TJ
2023	CO	1A2gviii	SAWDUST	0.088240115	t/TJ
2023	CO	1A2gviii	SAWDUST AND CUTTER CHIPS	0.500000000	t/TJ
2023	CO	1A2gviii	SOD PEAT	0.500000000	t/TJ
2023	CO	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.002794649	t/TJ
2023	CO	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.401083651	t/TJ
2023	CO	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.839331606	t/TJ
2023	CO	1A2gviii	WOOD RESIDUE CHIPS	0.452291362	t/TJ
2023	CO	1A2gviii	WOOD STUMP CHIPS	0.018743632	t/TJ
2023	CO	1A3ai(i)	KEROSENE (JET FUEL)	0.295479454	t/TJ
2023	CO	1A3aii(i)	AVIATION GASOLINE	20.681979223	t/TJ
2023	CO	1A3aii(i)	KEROSENE (JET FUEL)	0.357102372	t/TJ
2023	CO	1A3bi	DIESEL OIL (S=001%)	0.022816674	t/TJ
2023	CO	1A3bi	MOTOR GASOLINE (S=0.001%)	0.367664450	t/TJ
2023	CO	1A3bi	NATURAL GAS	0.155707249	t/TJ
2023	CO	1A3bii	DIESEL OIL (S=001%)	0.094133397	t/TJ
2023	CO	1A3bii	MOTOR GASOLINE (S=0.001%)	1.786751883	t/TJ
2023	CO	1A3bii	NATURAL GAS	0.234363743	t/TJ
2023	CO	1A3biii	DIESEL OIL (S=001%)	0.041275789	t/TJ
2023	CO	1A3biii	NATURAL GAS	0.064808744	t/TJ
2023	CO	1A3biv	DIESEL OIL (S=001%)	0.499604254	t/TJ
2023	CO	1A3biv	MOTOR GASOLINE (S=0.001%)	2.084590156	t/TJ
2023	CO	1A3c	GASOIL (FOR NON-ROAD USE)	0.228249481	t/TJ
2023	CO	1A3dii	DIESEL OIL (S=001%)	0.482821111	t/TJ
2023	CO	1A3dii	GASOIL (FOR NON-ROAD USE)	0.183332988	t/TJ
2023	CO	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.192233699	t/TJ
2023	CO	1A3dii	MOTOR GASOLINE (S=0.001%)	14.702548473	t/TJ
2023	CO	1A3ei	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A4ai	BIO-FUEL OIL	0.020000000	t/TJ
2023	CO	1A4ai	FOREST WOODFUEL	0.229078000	t/TJ
2023	CO	1A4ai	GASOIL (FOR NON-ROAD USE)	0.020000000	t/TJ
2023	CO	1A4ai	HEAVY FUEL OIL (S<1%)	0.020000000	t/TJ
2023	CO	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.020110565	t/TJ
2023	CO	1A4ai	NAPHTHA	0.020000000	t/TJ
2023	CO	1A4ai	NATURAL GAS	0.020000000	t/TJ
2023	CO	1A4ai	NATURAL GAS	0.047801770	t/TJ
2023	CO	1A4ai	SOD PEAT	0.176470588	t/TJ

2023	CO	1A4aii	GASOIL (FOR NON-ROAD USE)	0.254704316	t/TJ
2023	CO	1A4aii	MOTOR GASOLINE (S=0.001%)	23.309883139	t/TJ
2023	CO	1A4bi	FOREST WOODFUEL	2.931588887	t/TJ
2023	CO	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.020000000	t/TJ
2023	CO	1A4bi	LIQUID GAS	0.050000000	t/TJ
2023	CO	1A4bi	NATURAL GAS	0.050000000	t/TJ
2023	CO	1A4bi	PARAFFIN	0.020000000	t/TJ
2023	CO	1A4bi	SOD PEAT	0.200000000	t/TJ
2023	CO	1A4bii	GASOIL (FOR NON-ROAD USE)	0.412396916	t/TJ
2023	CO	1A4bii	MOTOR GASOLINE (S=0.001%)	23.180792091	t/TJ
2023	CO	1A4ci	CHIPS FROM ROUNDWOOD	0.500000000	t/TJ
2023	CO	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.500000000	t/TJ
2023	CO	1A4ci	COAL (S=1.0%)	0.050000000	t/TJ
2023	CO	1A4ci	FOREST RESIDUE CHIPS	0.400000000	t/TJ
2023	CO	1A4ci	FOREST WOODFUEL	0.233000000	t/TJ
2023	CO	1A4ci	HEAVY FUEL OIL (S<1%)	0.020000000	t/TJ
2023	CO	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.020000000	t/TJ
2023	CO	1A4ci	LIQUID GAS	0.050000000	t/TJ
2023	CO	1A4ci	NATURAL GAS	0.050000000	t/TJ
2023	CO	1A4ci	OTHER NON-FOSSIL SOLID	0.500000000	t/TJ
2023	CO	1A4ci	RECOVERED WOOD	0.150000000	t/TJ
2023	CO	1A4ci	SOD PEAT	0.207014047	t/TJ
2023	CO	1A4cii	GASOIL (FOR NON-ROAD USE)	0.235200323	t/TJ
2023	CO	1A4cii	MOTOR GASOLINE (S=0.001%)	19.585220505	t/TJ
2023	CO	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.195746751	t/TJ
2023	CO	1A5a	AVIATION GASOLINE	23.437500000	t/TJ
2023	CO	1A5a	FOREST WOODFUEL	0.500000000	t/TJ
2023	CO	1A5a	KEROSENE (JET FUEL)	0.241896468	t/TJ
2023	CO	1A5a	LANDFILL GAS	0.050000000	t/TJ
2023	CO	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.039473507	t/TJ
2023	CO	1A5a	LIQUID GAS	0.050000000	t/TJ
2023	CO	1A5a	NATURAL GAS	0.050000000	t/TJ
2023	CO	1A5a	OTHER PETROLEUM PRODUCTS	0.020000000	t/TJ

Pb Implied emission factors in Finnish air pollutant inventory for 2023

2023	Pb	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.001684949	kg/TJ
2023	Pb	1A1a	ANIMAL-BASED FUELS	0.000039355	kg/TJ
2023	Pb	1A1a	ANTHRACITE	0.001002871	kg/TJ
2023	Pb	1A1a	ASPHALTENE	0.003997929	kg/TJ
2023	Pb	1A1a	BARK	0.004070053	kg/TJ
2023	Pb	1A1a	BIO PELLETS (NON-WOOD)	0.003400000	kg/TJ
2023	Pb	1A1a	BIOLOGICAL SLURRY	0.003400000	kg/TJ
2023	Pb	1A1a	CHIPS FROM ROUNDWOOD	0.002843337	kg/TJ
2023	Pb	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000775199	kg/TJ
2023	Pb	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.013542963	kg/TJ
2023	Pb	1A1a	COAL (S=1.0%)	0.001301530	kg/TJ
2023	Pb	1A1a	CUTTER CHIPS ETC.	0.002812204	kg/TJ
2023	Pb	1A1a	DEINKING WASTE	0.022710400	kg/TJ
2023	Pb	1A1a	DEMOLITION WOOD	0.000354556	kg/TJ
2023	Pb	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.003400000	kg/TJ
2023	Pb	1A1a	FOREST RESIDUE CHIPS	0.035123842	kg/TJ
2023	Pb	1A1a	FOREST RESIDUE CHIPS	0.008517763	kg/TJ
2023	Pb	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.001113453	kg/TJ
2023	Pb	1A1a	HEAVY FUEL OIL (S<0,1%)	0.020223561	kg/TJ
2023	Pb	1A1a	HEAVY FUEL OIL (S<0,5%)	0.013598009	kg/TJ

2023	Pb	1A1a	HEAVY FUEL OIL (S<1%)	0.006176592	kg/TJ
2023	Pb	1A1a	IMPREGNATED WOOD	0.002262555	kg/TJ
2023	Pb	1A1a	INDUSTRIAL WASTE	0.010127007	kg/TJ
2023	Pb	1A1a	LIGNIN	0.003400000	kg/TJ
2023	Pb	1A1a	MILLED PEAT	0.009413081	kg/TJ
2023	Pb	1A1a	MUNICIPAL WASTE - unsorted	0.008970526	kg/TJ
2023	Pb	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.002846840	kg/TJ
2023	Pb	1A1a	OTHER FOSSIL SOLID	0.000140122	kg/TJ
2023	Pb	1A1a	OTHER FUEL	0.000164552	kg/TJ
2023	Pb	1A1a	OTHER NON-FOSSIL SOLID	0.003366001	kg/TJ
2023	Pb	1A1a	OTHER NON-FOSSIL SOLID	0.003540858	kg/TJ
2023	Pb	1A1a	OTHER WASTE	0.000252323	kg/TJ
2023	Pb	1A1a	OTHER WOOD RESIDUE	0.024643817	kg/TJ
2023	Pb	1A1a	PAPER	0.002095777	kg/TJ
2023	Pb	1A1a	PEAT PELLETS AND BRIQUETTES	0.001000000	kg/TJ
2023	Pb	1A1a	PLASTIC WASTE	0.001046150	kg/TJ
2023	Pb	1A1a	RECOVERED FUEL (REF 2)	0.045000000	kg/TJ
2023	Pb	1A1a	RECOVERED WOOD	0.003277058	kg/TJ
2023	Pb	1A1a	RECYCLED AND WASTE OILS	0.000298707	kg/TJ
2023	Pb	1A1a	SAWDUST	0.004379492	kg/TJ
2023	Pb	1A1a	SOD PEAT	0.168071064	kg/TJ
2023	Pb	1A1a	SOLID RECOVERED FUEL (SRF)	0.009863819	kg/TJ
2023	Pb	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.006214835	kg/TJ
2023	Pb	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.006464524	kg/TJ
2023	Pb	1A1a	WOOD RESIDUE CHIPS	0.018224566	kg/TJ
2023	Pb	1A1a	WOOD STUMP CHIPS	0.022937704	kg/TJ
2023	Pb	1A1b	COKE (S=1.0%)	0.790000000	kg/TJ
2023	Pb	1A1b	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2023	Pb	1A1b	PETROLEUM COKE	0.790000000	kg/TJ
2023	Pb	1A1b	SULPHUR CONCENTRATE	0.001046150	kg/TJ
2023	Pb	1A2a	WOOD RESIDUE CHIPS	0.045000000	kg/TJ
2023	Pb	1A2b	HEAVY FUEL OIL (S<1%)	0.004484370	kg/TJ
2023	Pb	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.025000000	kg/TJ
2023	Pb	1A2c	HEAVY FUEL OIL (S<0,1%)	0.022882353	kg/TJ
2023	Pb	1A2c	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2023	Pb	1A2c	OTHER FOSSIL LIQUID	0.025000000	kg/TJ
2023	Pb	1A2c	OTHER FUEL	0.003400000	kg/TJ
2023	Pb	1A2c	OTHER NON-FOSSIL SOLID	0.003708855	kg/TJ
2023	Pb	1A2c	OTHER WASTE	0.003400000	kg/TJ
2023	Pb	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.045000000	kg/TJ
2023	Pb	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.011106086	kg/TJ
2023	Pb	1A2d	ANIMAL-BASED FUELS	0.010497017	kg/TJ
2023	Pb	1A2d	BARK	0.001978170	kg/TJ
2023	Pb	1A2d	BIOLOGICAL SLURRY	0.002297335	kg/TJ
2023	Pb	1A2d	BLACK LIQUOR	0.018103037	kg/TJ
2023	Pb	1A2d	CHIPS FROM ROUNDWOOD	0.004830551	kg/TJ
2023	Pb	1A2d	COAL (S=1.0%)	0.000312079	kg/TJ
2023	Pb	1A2d	CUTTER CHIPS ETC.	0.001506279	kg/TJ
2023	Pb	1A2d	DEMOLITION WOOD	0.010497017	kg/TJ
2023	Pb	1A2d	FOREST RESIDUE CHIPS	0.003063567	kg/TJ
2023	Pb	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000541305	kg/TJ
2023	Pb	1A2d	HEAVY FUEL OIL (S<0,1%)	0.007256675	kg/TJ
2023	Pb	1A2d	HEAVY FUEL OIL (S<0,5%)	0.025000000	kg/TJ
2023	Pb	1A2d	HEAVY FUEL OIL (S<1%)	0.002872898	kg/TJ
2023	Pb	1A2d	IMPREGNATED WOOD	0.010497017	kg/TJ
2023	Pb	1A2d	INDUSTRIAL WASTE	0.004821867	kg/TJ

2023	Pb	1A2d	METHANOL	0.000019625	kg/TJ
2023	Pb	1A2d	MILLED PEAT	0.000384311	kg/TJ
2023	Pb	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003031968	kg/TJ
2023	Pb	1A2d	OTHER WOOD RESIDUE	0.012158972	kg/TJ
2023	Pb	1A2d	PAPER	0.014090669	kg/TJ
2023	Pb	1A2d	PLASTIC WASTE	0.000064761	kg/TJ
2023	Pb	1A2d	RECOVERED WOOD	0.001774858	kg/TJ
2023	Pb	1A2d	RECYCLED AND WASTE OILS	0.012040740	kg/TJ
2023	Pb	1A2d	SAWDUST	0.003224687	kg/TJ
2023	Pb	1A2d	SOLID RECOVERED FUEL (SRF)	0.110093342	kg/TJ
2023	Pb	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001879954	kg/TJ
2023	Pb	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.022429066	kg/TJ
2023	Pb	1A2d	WOOD RESIDUE CHIPS	0.015864696	kg/TJ
2023	Pb	1A2d	WOOD STUMP CHIPS	0.010497017	kg/TJ
2023	Pb	1A2e	ANIMAL FATS AND OILS	0.003400000	kg/TJ
2023	Pb	1A2e	ANIMAL-BASED FUELS	0.045000000	kg/TJ
2023	Pb	1A2e	BIO-FUEL OIL	0.012294027	kg/TJ
2023	Pb	1A2e	CHIPS FROM ROUNDWOOD	0.003400000	kg/TJ
2023	Pb	1A2e	COAL (S=1.0%)	0.004018485	kg/TJ
2023	Pb	1A2e	COKE (S=1.0%)	0.790000000	kg/TJ
2023	Pb	1A2e	FOREST RESIDUE CHIPS	0.045000000	kg/TJ
2023	Pb	1A2e	HEAVY FUEL OIL (S<1%)	0.025010351	kg/TJ
2023	Pb	1A2e	MILLED PEAT	0.069931308	kg/TJ
2023	Pb	1A2e	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2023	Pb	1A2e	OTHER NON-FOSSIL SOLID	0.003306085	kg/TJ
2023	Pb	1A2e	PEAT PELLETS AND BRIQUETTES	0.000500000	kg/TJ
2023	Pb	1A2e	RECOVERED WOOD	0.003400000	kg/TJ
2023	Pb	1A2e	SAWDUST	0.003400000	kg/TJ
2023	Pb	1A2e	SOD PEAT	0.170000000	kg/TJ
2023	Pb	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.043588077	kg/TJ
2023	Pb	1A2e	WOOD STUMP CHIPS	0.045000000	kg/TJ
2023	Pb	1A2f	CHIPS FROM ROUNDWOOD	0.045000000	kg/TJ
2023	Pb	1A2f	COAL (S=1.0%)	0.457406194	kg/TJ
2023	Pb	1A2f	COKE (S=1.0%)	0.790000000	kg/TJ
2023	Pb	1A2f	FOREST RESIDUE CHIPS	0.045000000	kg/TJ
2023	Pb	1A2f	HEAVY FUEL OIL (S<0,1%)	0.025000000	kg/TJ
2023	Pb	1A2f	HEAVY FUEL OIL (S<1%)	0.021300347	kg/TJ
2023	Pb	1A2f	INDUSTRIAL WASTE	0.003820763	kg/TJ
2023	Pb	1A2f	OTHER FOSSIL LIQUID	0.000024585	kg/TJ
2023	Pb	1A2f	OTHER FUEL	0.003400000	kg/TJ
2023	Pb	1A2f	OTHER NON-FOSSIL SOLID	0.000019120	kg/TJ
2023	Pb	1A2f	OTHER WASTE	0.000288680	kg/TJ
2023	Pb	1A2f	PETROLEUM COKE	0.000443817	kg/TJ
2023	Pb	1A2f	PLASTIC WASTE	0.000016152	kg/TJ
2023	Pb	1A2f	RECYCLED AND WASTE OILS	0.002834180	kg/TJ
2023	Pb	1A2f	REED CANARY GRASS	0.000288680	kg/TJ
2023	Pb	1A2f	RUBBER WASTE	0.000287533	kg/TJ
2023	Pb	1A2f	SAWDUST	0.000019120	kg/TJ
2023	Pb	1A2f	SOLID RECOVERED FUEL (SRF)	0.001305615	kg/TJ
2023	Pb	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000253058	kg/TJ
2023	Pb	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000069994	kg/TJ
2023	Pb	1A2gviii	BARK	0.014623782	kg/TJ
2023	Pb	1A2gviii	BIO PELLETS (NON-WOOD)	0.003400000	kg/TJ
2023	Pb	1A2gviii	BIOLOGICAL SLURRY	0.003400000	kg/TJ
2023	Pb	1A2gviii	CHIPS FROM ROUNDWOOD	0.000678819	kg/TJ
2023	Pb	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.045000000	kg/TJ

2023	Pb	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.045000000	kg/TJ
2023	Pb	1A2gviii	CUTTER CHIPS ETC.	0.004329463	kg/TJ
2023	Pb	1A2gviii	DEMOLITION WOOD	0.000127409	kg/TJ
2023	Pb	1A2gviii	FOREST RESIDUE CHIPS	0.045000000	kg/TJ
2023	Pb	1A2gviii	FOREST RESIDUE CHIPS	0.010278685	kg/TJ
2023	Pb	1A2gviii	HAZARDOUS WASTE	0.000119410	kg/TJ
2023	Pb	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.025000000	kg/TJ
2023	Pb	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.025000000	kg/TJ
2023	Pb	1A2gviii	HEAVY FUEL OIL (S<1%)	0.020039301	kg/TJ
2023	Pb	1A2gviii	IMPREGNATED WOOD	0.000095685	kg/TJ
2023	Pb	1A2gviii	MILLED PEAT	0.000521446	kg/TJ
2023	Pb	1A2gviii	MUNICIPAL WASTE - unsorted	0.000483074	kg/TJ
2023	Pb	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.003243410	kg/TJ
2023	Pb	1A2gviii	OTHER HEAVY DISTILLATES	0.012449194	kg/TJ
2023	Pb	1A2gviii	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2023	Pb	1A2gviii	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2023	Pb	1A2gviii	OTHER WASTE	0.000116392	kg/TJ
2023	Pb	1A2gviii	OTHER WOOD RESIDUE	0.027125534	kg/TJ
2023	Pb	1A2gviii	PLASTIC WASTE	0.000098833	kg/TJ
2023	Pb	1A2gviii	RECOVERED WOOD	0.007860692	kg/TJ
2023	Pb	1A2gviii	RECYCLED AND WASTE OILS	0.000902526	kg/TJ
2023	Pb	1A2gviii	SAWDUST	0.001343394	kg/TJ
2023	Pb	1A2gviii	SAWDUST AND CUTTER CHIPS	0.045000000	kg/TJ
2023	Pb	1A2gviii	SOD PEAT	0.006845957	kg/TJ
2023	Pb	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.004835586	kg/TJ
2023	Pb	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.005111547	kg/TJ
2023	Pb	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.045000000	kg/TJ
2023	Pb	1A2gviii	WOOD RESIDUE CHIPS	0.026595654	kg/TJ
2023	Pb	1A2gviii	WOOD STUMP CHIPS	0.002453915	kg/TJ
2023	Pb	1A3aii(i)	AVIATION GASOLINE	13.443935927	kg/TJ
2023	Pb	1A3bi	DIESEL OIL (S=001%)	0.000014346	kg/TJ
2023	Pb	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000043325	kg/TJ
2023	Pb	1A3bii	DIESEL OIL (S=001%)	0.000014346	kg/TJ
2023	Pb	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000043245	kg/TJ
2023	Pb	1A3biii	DIESEL OIL (S=001%)	0.000014346	kg/TJ
2023	Pb	1A3biv	DIESEL OIL (S=001%)	0.000013921	kg/TJ
2023	Pb	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000043245	kg/TJ
2023	Pb	1A3dii	GASOIL (FOR NON-ROAD USE)	0.003056756	kg/TJ
2023	Pb	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.004432937	kg/TJ
2023	Pb	1A4ai	FOREST WOODFUEL	0.010000000	kg/TJ
2023	Pb	1A4ai	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2023	Pb	1A4ai	SOD PEAT	0.170000000	kg/TJ
2023	Pb	1A4bi	FOREST WOODFUEL	0.010000000	kg/TJ
2023	Pb	1A4bi	SOD PEAT	0.170000000	kg/TJ
2023	Pb	1A4ci	CHIPS FROM ROUNDWOOD	0.003400000	kg/TJ
2023	Pb	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.045000000	kg/TJ
2023	Pb	1A4ci	COAL (S=1.0%)	0.003900000	kg/TJ
2023	Pb	1A4ci	FOREST RESIDUE CHIPS	0.045000000	kg/TJ
2023	Pb	1A4ci	FOREST WOODFUEL	0.010000000	kg/TJ
2023	Pb	1A4ci	HEAVY FUEL OIL (S<1%)	0.025000000	kg/TJ
2023	Pb	1A4ci	OTHER NON-FOSSIL SOLID	0.003400000	kg/TJ
2023	Pb	1A4ci	RECOVERED WOOD	0.003400000	kg/TJ
2023	Pb	1A4ci	SOD PEAT	0.170000000	kg/TJ
2023	Pb	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.003141615	kg/TJ
2023	Pb	1A5a	FOREST WOODFUEL	0.045000000	kg/TJ
2023	Pb	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000300234	kg/TJ

2023	Pb	1A5a	OTHER PETROLEUM PRODUCTS	0.025000000	kg/TJ
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Cd Implied emission factors in Finnish air pollutant inventory for 2023

2023	Cd	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000265065	kg/TJ
2023	Cd	1A1a	ANIMAL-BASED FUELS	0.000032512	kg/TJ
2023	Cd	1A1a	ANTHRACITE	0.000058992	kg/TJ
2023	Cd	1A1a	ASPHALTENE	0.000050739	kg/TJ
2023	Cd	1A1a	BARK	0.000462747	kg/TJ
2023	Cd	1A1a	BIO PELLETS (NON-WOOD)	0.000500000	kg/TJ
2023	Cd	1A1a	BIOLOGICAL SLURRY	0.000500000	kg/TJ
2023	Cd	1A1a	CHIPS FROM ROUNDWOOD	0.000318678	kg/TJ
2023	Cd	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000194190	kg/TJ
2023	Cd	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.002559638	kg/TJ
2023	Cd	1A1a	COAL (S=1.0%)	0.000096710	kg/TJ
2023	Cd	1A1a	CUTTER CHIPS ETC.	0.000414920	kg/TJ
2023	Cd	1A1a	DEINKING WASTE	0.002588865	kg/TJ
2023	Cd	1A1a	DEMOLITION WOOD	0.000042803	kg/TJ
2023	Cd	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000500000	kg/TJ
2023	Cd	1A1a	FOREST RESIDUE CHIPS	0.001260048	kg/TJ
2023	Cd	1A1a	FOREST RESIDUE CHIPS	0.003919025	kg/TJ
2023	Cd	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000236905	kg/TJ
2023	Cd	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000252075	kg/TJ
2023	Cd	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000222489	kg/TJ
2023	Cd	1A1a	HEAVY FUEL OIL (S<1%)	0.000104660	kg/TJ
2023	Cd	1A1a	IMPREGNATED WOOD	0.000343590	kg/TJ
2023	Cd	1A1a	INDUSTRIAL WASTE	0.001749455	kg/TJ
2023	Cd	1A1a	LIGNIN	0.000500000	kg/TJ
2023	Cd	1A1a	MILLED PEAT	0.000220417	kg/TJ
2023	Cd	1A1a	MUNICIPAL WASTE - unsorted	0.001058208	kg/TJ
2023	Cd	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000419473	kg/TJ
2023	Cd	1A1a	OTHER FOSSIL SOLID	0.000002913	kg/TJ
2023	Cd	1A1a	OTHER FUEL	0.000015740	kg/TJ
2023	Cd	1A1a	OTHER NON-FOSSIL SOLID	0.000496028	kg/TJ
2023	Cd	1A1a	OTHER NON-FOSSIL SOLID	0.000507715	kg/TJ
2023	Cd	1A1a	OTHER WASTE	0.000234902	kg/TJ
2023	Cd	1A1a	OTHER WOOD RESIDUE	0.003716213	kg/TJ
2023	Cd	1A1a	PAPER	0.000318574	kg/TJ
2023	Cd	1A1a	PEAT PELLETS AND BRIQUETTES	0.000020000	kg/TJ
2023	Cd	1A1a	PLASTIC WASTE	0.000159830	kg/TJ
2023	Cd	1A1a	RECOVERED FUEL (REF 2)	0.005000000	kg/TJ
2023	Cd	1A1a	RECOVERED WOOD	0.001396116	kg/TJ
2023	Cd	1A1a	RECYCLED AND WASTE OILS	0.000025305	kg/TJ
2023	Cd	1A1a	SAWDUST	0.000508165	kg/TJ
2023	Cd	1A1a	SOD PEAT	0.002768058	kg/TJ
2023	Cd	1A1a	SOLID RECOVERED FUEL (SRF)	0.002862412	kg/TJ
2023	Cd	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001030611	kg/TJ
2023	Cd	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000742882	kg/TJ
2023	Cd	1A1a	WOOD RESIDUE CHIPS	0.002152254	kg/TJ
2023	Cd	1A1a	WOOD STUMP CHIPS	0.001904201	kg/TJ
2023	Cd	1A1b	COKE (S=1.0%)	0.018000000	kg/TJ
2023	Cd	1A1b	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2023	Cd	1A1b	PETROLEUM COKE	0.018000000	kg/TJ
2023	Cd	1A1b	SULPHUR CONCENTRATE	0.000225000	kg/TJ
2023	Cd	1A2a	WOOD RESIDUE CHIPS	0.005000000	kg/TJ
2023	Cd	1A2b	HEAVY FUEL OIL (S<1%)	0.000053812	kg/TJ

2023	Cd	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000300000	kg/TJ
2023	Cd	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000285882	kg/TJ
2023	Cd	1A2c	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2023	Cd	1A2c	OTHER FOSSIL LIQUID	0.000300000	kg/TJ
2023	Cd	1A2c	OTHER FUEL	0.000500000	kg/TJ
2023	Cd	1A2c	OTHER NON-FOSSIL SOLID	0.001390821	kg/TJ
2023	Cd	1A2c	OTHER WASTE	0.000500000	kg/TJ
2023	Cd	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005000000	kg/TJ
2023	Cd	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000147335	kg/TJ
2023	Cd	1A2d	ANIMAL-BASED FUELS	0.000022731	kg/TJ
2023	Cd	1A2d	BARK	0.000156323	kg/TJ
2023	Cd	1A2d	BIOLOGICAL SLURRY	0.000080735	kg/TJ
2023	Cd	1A2d	BLACK LIQUOR	0.001130876	kg/TJ
2023	Cd	1A2d	CHIPS FROM ROUNDWOOD	0.000173775	kg/TJ
2023	Cd	1A2d	COAL (S=1.0%)	0.000001710	kg/TJ
2023	Cd	1A2d	CUTTER CHIPS ETC.	0.000034374	kg/TJ
2023	Cd	1A2d	DEMOLITION WOOD	0.000022731	kg/TJ
2023	Cd	1A2d	FOREST RESIDUE CHIPS	0.000127240	kg/TJ
2023	Cd	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000048246	kg/TJ
2023	Cd	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000098808	kg/TJ
2023	Cd	1A2d	HEAVY FUEL OIL (S<0,5%)	0.000300000	kg/TJ
2023	Cd	1A2d	HEAVY FUEL OIL (S<1%)	0.000072484	kg/TJ
2023	Cd	1A2d	IMPREGNATED WOOD	0.000022731	kg/TJ
2023	Cd	1A2d	INDUSTRIAL WASTE	0.000546873	kg/TJ
2023	Cd	1A2d	METHANOL	0.000005460	kg/TJ
2023	Cd	1A2d	MILLED PEAT	0.000001587	kg/TJ
2023	Cd	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000500000	kg/TJ
2023	Cd	1A2d	OTHER WOOD RESIDUE	0.001336962	kg/TJ
2023	Cd	1A2d	PAPER	0.000023051	kg/TJ
2023	Cd	1A2d	PLASTIC WASTE	0.000003923	kg/TJ
2023	Cd	1A2d	RECOVERED WOOD	0.000047825	kg/TJ
2023	Cd	1A2d	RECYCLED AND WASTE OILS	0.000009093	kg/TJ
2023	Cd	1A2d	SAWDUST	0.000308116	kg/TJ
2023	Cd	1A2d	SOLID RECOVERED FUEL (SRF)	0.000596330	kg/TJ
2023	Cd	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000214359	kg/TJ
2023	Cd	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000215003	kg/TJ
2023	Cd	1A2d	WOOD RESIDUE CHIPS	0.000586367	kg/TJ
2023	Cd	1A2d	WOOD STUMP CHIPS	0.000022731	kg/TJ
2023	Cd	1A2e	ANIMAL FATS AND OILS	0.000500000	kg/TJ
2023	Cd	1A2e	ANIMAL-BASED FUELS	0.005000000	kg/TJ
2023	Cd	1A2e	BIO-FUEL OIL	0.000147528	kg/TJ
2023	Cd	1A2e	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2023	Cd	1A2e	COAL (S=1.0%)	0.000200924	kg/TJ
2023	Cd	1A2e	COKE (S=1.0%)	0.018000000	kg/TJ
2023	Cd	1A2e	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2023	Cd	1A2e	HEAVY FUEL OIL (S<1%)	0.000299572	kg/TJ
2023	Cd	1A2e	MILLED PEAT	0.001152853	kg/TJ
2023	Cd	1A2e	OTHER NON-FOSSIL SOLID	0.000486189	kg/TJ
2023	Cd	1A2e	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Cd	1A2e	PEAT PELLETS AND BRIQUETTES	0.000010000	kg/TJ
2023	Cd	1A2e	RECOVERED WOOD	0.000500000	kg/TJ
2023	Cd	1A2e	SAWDUST	0.000500000	kg/TJ
2023	Cd	1A2e	SOD PEAT	0.002800000	kg/TJ
2023	Cd	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.004843120	kg/TJ
2023	Cd	1A2e	WOOD STUMP CHIPS	0.005000000	kg/TJ
2023	Cd	1A2f	CHIPS FROM ROUNDWOOD	0.005000000	kg/TJ

2023	Cd	1A2f	COAL (S=1.0%)	0.010444715	kg/TJ
2023	Cd	1A2f	COKE (S=1.0%)	0.018000000	kg/TJ
2023	Cd	1A2f	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2023	Cd	1A2f	HEAVY FUEL OIL (S<0,1%)	0.000300000	kg/TJ
2023	Cd	1A2f	HEAVY FUEL OIL (S<1%)	0.000274250	kg/TJ
2023	Cd	1A2f	INDUSTRIAL WASTE	0.000714803	kg/TJ
2023	Cd	1A2f	OTHER FOSSIL LIQUID	0.000002020	kg/TJ
2023	Cd	1A2f	OTHER FUEL	0.000500000	kg/TJ
2023	Cd	1A2f	OTHER NON-FOSSIL SOLID	0.000013007	kg/TJ
2023	Cd	1A2f	OTHER WASTE	0.000071480	kg/TJ
2023	Cd	1A2f	PETROLEUM COKE	0.000052003	kg/TJ
2023	Cd	1A2f	PLASTIC WASTE	0.000006795	kg/TJ
2023	Cd	1A2f	RECYCLED AND WASTE OILS	0.000146463	kg/TJ
2023	Cd	1A2f	REED CANARY GRASS	0.000071480	kg/TJ
2023	Cd	1A2f	RUBBER WASTE	0.000071206	kg/TJ
2023	Cd	1A2f	SAWDUST	0.000013007	kg/TJ
2023	Cd	1A2f	SOLID RECOVERED FUEL (SRF)	0.000261168	kg/TJ
2023	Cd	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000130069	kg/TJ
2023	Cd	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.000241663	kg/TJ
2023	Cd	1A2gvii	LIQUID GAS	0.000217391	kg/TJ
2023	Cd	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.000270283	kg/TJ
2023	Cd	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000008535	kg/TJ
2023	Cd	1A2gviii	BARK	0.001749822	kg/TJ
2023	Cd	1A2gviii	BIO PELLETS (NON-WOOD)	0.000500000	kg/TJ
2023	Cd	1A2gviii	BIOLOGICAL SLURRY	0.000500000	kg/TJ
2023	Cd	1A2gviii	CHIPS FROM ROUNDWOOD	0.000101615	kg/TJ
2023	Cd	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.005000000	kg/TJ
2023	Cd	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.005000000	kg/TJ
2023	Cd	1A2gviii	CUTTER CHIPS ETC.	0.000675661	kg/TJ
2023	Cd	1A2gviii	DEMOLITION WOOD	0.000017038	kg/TJ
2023	Cd	1A2gviii	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2023	Cd	1A2gviii	FOREST RESIDUE CHIPS	0.001260162	kg/TJ
2023	Cd	1A2gviii	HAZARDOUS WASTE	0.000042917	kg/TJ
2023	Cd	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.000300000	kg/TJ
2023	Cd	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.000300000	kg/TJ
2023	Cd	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000240678	kg/TJ
2023	Cd	1A2gviii	IMPREGNATED WOOD	0.000009898	kg/TJ
2023	Cd	1A2gviii	MILLED PEAT	0.000010307	kg/TJ
2023	Cd	1A2gviii	MUNICIPAL WASTE - unsorted	0.000088825	kg/TJ
2023	Cd	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000476889	kg/TJ
2023	Cd	1A2gviii	OTHER HEAVY DISTILLATES	0.000236747	kg/TJ
2023	Cd	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Cd	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Cd	1A2gviii	OTHER WASTE	0.000051171	kg/TJ
2023	Cd	1A2gviii	OTHER WOOD RESIDUE	0.003066464	kg/TJ
2023	Cd	1A2gviii	PLASTIC WASTE	0.000016174	kg/TJ
2023	Cd	1A2gviii	RECOVERED WOOD	0.000909877	kg/TJ
2023	Cd	1A2gviii	RECYCLED AND WASTE OILS	0.000046968	kg/TJ
2023	Cd	1A2gviii	SAWDUST	0.000196472	kg/TJ
2023	Cd	1A2gviii	SAWDUST AND CUTTER CHIPS	0.005000000	kg/TJ
2023	Cd	1A2gviii	SOD PEAT	0.000114334	kg/TJ
2023	Cd	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000521263	kg/TJ
2023	Cd	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000821420	kg/TJ
2023	Cd	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005000000	kg/TJ
2023	Cd	1A2gviii	WOOD RESIDUE CHIPS	0.003043441	kg/TJ
2023	Cd	1A2gviii	WOOD STUMP CHIPS	0.000255683	kg/TJ

2023	Cd	1A3bi	DIESEL OIL (S=001%)	0.000001435	kg/TJ
2023	Cd	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000005416	kg/TJ
2023	Cd	1A3bii	DIESEL OIL (S=001%)	0.000001435	kg/TJ
2023	Cd	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000005406	kg/TJ
2023	Cd	1A3biii	DIESEL OIL (S=001%)	0.000001435	kg/TJ
2023	Cd	1A3biv	DIESEL OIL (S=001%)	0.000001392	kg/TJ
2023	Cd	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000005406	kg/TJ
2023	Cd	1A3c	GASOIL (FOR NON-ROAD USE)	0.000241663	kg/TJ
2023	Cd	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000235135	kg/TJ
2023	Cd	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000492549	kg/TJ
2023	Cd	1A4ai	FOREST WOODFUEL	0.003000000	kg/TJ
2023	Cd	1A4ai	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2023	Cd	1A4ai	SOD PEAT	0.002800000	kg/TJ
2023	Cd	1A4aii	GASOIL (FOR NON-ROAD USE)	0.000241663	kg/TJ
2023	Cd	1A4aii	MOTOR GASOLINE (S=0.001%)	0.000270283	kg/TJ
2023	Cd	1A4bi	FOREST WOODFUEL	0.003000000	kg/TJ
2023	Cd	1A4bi	SOD PEAT	0.002800000	kg/TJ
2023	Cd	1A4bii	GASOIL (FOR NON-ROAD USE)	0.000241663	kg/TJ
2023	Cd	1A4bii	MOTOR GASOLINE (S=0.001%)	0.000270283	kg/TJ
2023	Cd	1A4ci	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2023	Cd	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.005000000	kg/TJ
2023	Cd	1A4ci	COAL (S=1.0%)	0.000200000	kg/TJ
2023	Cd	1A4ci	FOREST RESIDUE CHIPS	0.005000000	kg/TJ
2023	Cd	1A4ci	FOREST WOODFUEL	0.003000000	kg/TJ
2023	Cd	1A4ci	HEAVY FUEL OIL (S<1%)	0.000300000	kg/TJ
2023	Cd	1A4ci	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Cd	1A4ci	RECOVERED WOOD	0.000500000	kg/TJ
2023	Cd	1A4ci	SOD PEAT	0.002800000	kg/TJ
2023	Cd	1A4cii	GASOIL (FOR NON-ROAD USE)	0.000241663	kg/TJ
2023	Cd	1A4cii	MOTOR GASOLINE (S=0.001%)	0.000270283	kg/TJ
2023	Cd	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000241663	kg/TJ
2023	Cd	1A5a	FOREST WOODFUEL	0.005000000	kg/TJ
2023	Cd	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000026152	kg/TJ
2023	Cd	1A5a	OTHER PETROLEUM PRODUCTS	0.000300000	kg/TJ

Hg Implied emission factors in Finnish air pollutant inventory for 2023

2023	Hg	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000314449	kg/TJ
2023	Hg	1A1a	ANIMAL-BASED FUELS	0.000118611	kg/TJ
2023	Hg	1A1a	ANTHRACITE	0.000412947	kg/TJ
2023	Hg	1A1a	ASPHALTENE	0.000006975	kg/TJ
2023	Hg	1A1a	BARK	0.000599061	kg/TJ
2023	Hg	1A1a	BIO PELLETS (NON-WOOD)	0.000500000	kg/TJ
2023	Hg	1A1a	BIOLOGICAL SLURRY	0.000500000	kg/TJ
2023	Hg	1A1a	CHIPS FROM ROUNDWOOD	0.000464109	kg/TJ
2023	Hg	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000051969	kg/TJ
2023	Hg	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000488692	kg/TJ
2023	Hg	1A1a	COAL (S=1.0%)	0.000788183	kg/TJ
2023	Hg	1A1a	CUTTER CHIPS ETC.	0.000398315	kg/TJ
2023	Hg	1A1a	DEINKING WASTE	0.000500000	kg/TJ
2023	Hg	1A1a	DEMOLITION WOOD	0.000145846	kg/TJ
2023	Hg	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000500000	kg/TJ
2023	Hg	1A1a	FOREST RESIDUE CHIPS	0.000581021	kg/TJ
2023	Hg	1A1a	FOREST RESIDUE CHIPS	0.000691262	kg/TJ
2023	Hg	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000024808	kg/TJ
2023	Hg	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000025232	kg/TJ

2023	Hg	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000027475	kg/TJ
2023	Hg	1A1a	HEAVY FUEL OIL (S<1%)	0.000020263	kg/TJ
2023	Hg	1A1a	IMPREGNATED WOOD	0.000531858	kg/TJ
2023	Hg	1A1a	INDUSTRIAL WASTE	0.000297069	kg/TJ
2023	Hg	1A1a	LIGNIN	0.000500000	kg/TJ
2023	Hg	1A1a	MILLED PEAT	0.001573415	kg/TJ
2023	Hg	1A1a	MUNICIPAL WASTE - unsorted	0.000292652	kg/TJ
2023	Hg	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000437330	kg/TJ
2023	Hg	1A1a	OTHER FOSSIL SOLID	0.000488615	kg/TJ
2023	Hg	1A1a	OTHER FUEL	0.000266645	kg/TJ
2023	Hg	1A1a	OTHER NON-FOSSIL SOLID	0.000533780	kg/TJ
2023	Hg	1A1a	OTHER NON-FOSSIL SOLID	0.000479479	kg/TJ
2023	Hg	1A1a	OTHER WASTE	0.000215127	kg/TJ
2023	Hg	1A1a	OTHER WOOD RESIDUE	0.000422656	kg/TJ
2023	Hg	1A1a	PAPER	0.000351988	kg/TJ
2023	Hg	1A1a	PEAT PELLETS AND BRIQUETTES	0.001300000	kg/TJ
2023	Hg	1A1a	PLASTIC WASTE	0.000025386	kg/TJ
2023	Hg	1A1a	RECOVERED FUEL (REF 2)	0.000500000	kg/TJ
2023	Hg	1A1a	RECOVERED WOOD	0.000495170	kg/TJ
2023	Hg	1A1a	RECYCLED AND WASTE OILS	0.000008622	kg/TJ
2023	Hg	1A1a	SAWDUST	0.000479772	kg/TJ
2023	Hg	1A1a	SOD PEAT	0.002744080	kg/TJ
2023	Hg	1A1a	SOLID RECOVERED FUEL (SRF)	0.000423036	kg/TJ
2023	Hg	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000729463	kg/TJ
2023	Hg	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000289744	kg/TJ
2023	Hg	1A1a	WOOD RESIDUE CHIPS	0.000478061	kg/TJ
2023	Hg	1A1a	WOOD STUMP CHIPS	0.001573197	kg/TJ
2023	Hg	1A1b	COKE (S=1.0%)	0.003700000	kg/TJ
2023	Hg	1A1b	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2023	Hg	1A1b	PETROLEUM COKE	0.003700000	kg/TJ
2023	Hg	1A1b	SULPHUR CONCENTRATE	0.000339286	kg/TJ
2023	Hg	1A2a	COKE (S=1.0%)	0.000060908	kg/TJ
2023	Hg	1A2a	OTHER FOSSIL SOLID	0.001400000	kg/TJ
2023	Hg	1A2a	WOOD RESIDUE CHIPS	0.000500000	kg/TJ
2023	Hg	1A2b	HEAVY FUEL OIL (S<1%)	0.000017083	kg/TJ
2023	Hg	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000030000	kg/TJ
2023	Hg	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000030000	kg/TJ
2023	Hg	1A2c	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2023	Hg	1A2c	OTHER FOSSIL LIQUID	0.000030000	kg/TJ
2023	Hg	1A2c	OTHER FUEL	0.000500000	kg/TJ
2023	Hg	1A2c	OTHER NON-FOSSIL SOLID	0.010662958	kg/TJ
2023	Hg	1A2c	OTHER WASTE	0.000500000	kg/TJ
2023	Hg	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000500000	kg/TJ
2023	Hg	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000545281	kg/TJ
2023	Hg	1A2d	ANIMAL-BASED FUELS	0.000298322	kg/TJ
2023	Hg	1A2d	BARK	0.000602644	kg/TJ
2023	Hg	1A2d	BIOLOGICAL SLURRY	0.000257830	kg/TJ
2023	Hg	1A2d	BLACK LIQUOR	0.000413049	kg/TJ
2023	Hg	1A2d	CHIPS FROM ROUNDWOOD	0.000457821	kg/TJ
2023	Hg	1A2d	COAL (S=1.0%)	0.000716400	kg/TJ
2023	Hg	1A2d	CUTTER CHIPS ETC.	0.000145624	kg/TJ
2023	Hg	1A2d	DEMOLITION WOOD	0.000298322	kg/TJ
2023	Hg	1A2d	FOREST RESIDUE CHIPS	0.000407831	kg/TJ
2023	Hg	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000028440	kg/TJ
2023	Hg	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000016506	kg/TJ
2023	Hg	1A2d	HEAVY FUEL OIL (S<0,5%)	0.000030000	kg/TJ

2023	Hg	1A2d	HEAVY FUEL OIL (S<1%)	0.000030790	kg/TJ
2023	Hg	1A2d	IMPREGNATED WOOD	0.000298322	kg/TJ
2023	Hg	1A2d	INDUSTRIAL WASTE	0.000516914	kg/TJ
2023	Hg	1A2d	METHANOL	0.000027161	kg/TJ
2023	Hg	1A2d	MILLED PEAT	0.000590303	kg/TJ
2023	Hg	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000500000	kg/TJ
2023	Hg	1A2d	OTHER WOOD RESIDUE	0.000457896	kg/TJ
2023	Hg	1A2d	PAPER	0.000447675	kg/TJ
2023	Hg	1A2d	PLASTIC WASTE	0.000254727	kg/TJ
2023	Hg	1A2d	RECOVERED WOOD	0.000242132	kg/TJ
2023	Hg	1A2d	RECYCLED AND WASTE OILS	0.000017899	kg/TJ
2023	Hg	1A2d	SAWDUST	0.000493818	kg/TJ
2023	Hg	1A2d	SOLID RECOVERED FUEL (SRF)	0.000211060	kg/TJ
2023	Hg	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000936866	kg/TJ
2023	Hg	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000067966	kg/TJ
2023	Hg	1A2d	WOOD RESIDUE CHIPS	0.000498594	kg/TJ
2023	Hg	1A2d	WOOD STUMP CHIPS	0.000298322	kg/TJ
2023	Hg	1A2e	ANIMAL FATS AND OILS	0.000500000	kg/TJ
2023	Hg	1A2e	ANIMAL-BASED FUELS	0.000500000	kg/TJ
2023	Hg	1A2e	BIO-FUEL OIL	0.000014753	kg/TJ
2023	Hg	1A2e	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2023	Hg	1A2e	COAL (S=1.0%)	0.001406470	kg/TJ
2023	Hg	1A2e	COKE (S=1.0%)	0.003700000	kg/TJ
2023	Hg	1A2e	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2023	Hg	1A2e	HEAVY FUEL OIL (S<1%)	0.000029957	kg/TJ
2023	Hg	1A2e	MILLED PEAT	0.001449347	kg/TJ
2023	Hg	1A2e	OTHER NON-FOSSIL SOLID	0.000486189	kg/TJ
2023	Hg	1A2e	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Hg	1A2e	PEAT PELLETS AND BRIQUETTES	0.000650000	kg/TJ
2023	Hg	1A2e	RECOVERED WOOD	0.000500000	kg/TJ
2023	Hg	1A2e	SAWDUST	0.000500000	kg/TJ
2023	Hg	1A2e	SOD PEAT	0.002600000	kg/TJ
2023	Hg	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000484312	kg/TJ
2023	Hg	1A2e	WOOD STUMP CHIPS	0.000500000	kg/TJ
2023	Hg	1A2f	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2023	Hg	1A2f	COAL (S=1.0%)	0.011217817	kg/TJ
2023	Hg	1A2f	COKE (S=1.0%)	0.003700000	kg/TJ
2023	Hg	1A2f	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2023	Hg	1A2f	HEAVY FUEL OIL (S<0,1%)	0.000030000	kg/TJ
2023	Hg	1A2f	HEAVY FUEL OIL (S<1%)	0.000029377	kg/TJ
2023	Hg	1A2f	INDUSTRIAL WASTE	0.001427083	kg/TJ
2023	Hg	1A2f	OTHER FOSSIL LIQUID	0.000387093	kg/TJ
2023	Hg	1A2f	OTHER FUEL	0.000500000	kg/TJ
2023	Hg	1A2f	OTHER NON-FOSSIL SOLID	0.000277112	kg/TJ
2023	Hg	1A2f	OTHER WASTE	0.001427083	kg/TJ
2023	Hg	1A2f	PETROLEUM COKE	0.015054445	kg/TJ
2023	Hg	1A2f	PLASTIC WASTE	0.003790556	kg/TJ
2023	Hg	1A2f	RECYCLED AND WASTE OILS	0.000026325	kg/TJ
2023	Hg	1A2f	REED CANARY GRASS	0.001427083	kg/TJ
2023	Hg	1A2f	RUBBER WASTE	0.001447284	kg/TJ
2023	Hg	1A2f	SAWDUST	0.000277112	kg/TJ
2023	Hg	1A2f	SOLID RECOVERED FUEL (SRF)	0.004773371	kg/TJ
2023	Hg	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000277112	kg/TJ
2023	Hg	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000296914	kg/TJ
2023	Hg	1A2gviii	BARK	0.000452752	kg/TJ
2023	Hg	1A2gviii	BIO PELLETS (NON-WOOD)	0.000500000	kg/TJ

2023	Hg	1A2gviii	BIOLOGICAL SLURRY	0.000412392	kg/TJ
2023	Hg	1A2gviii	CHIPS FROM ROUNDWOOD	0.000325542	kg/TJ
2023	Hg	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.000412392	kg/TJ
2023	Hg	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000500000	kg/TJ
2023	Hg	1A2gviii	CUTTER CHIPS ETC.	0.000468837	kg/TJ
2023	Hg	1A2gviii	DEMOLITION WOOD	0.000330837	kg/TJ
2023	Hg	1A2gviii	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2023	Hg	1A2gviii	FOREST RESIDUE CHIPS	0.000340098	kg/TJ
2023	Hg	1A2gviii	HAZARDOUS WASTE	0.007298033	kg/TJ
2023	Hg	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.000030000	kg/TJ
2023	Hg	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.000030000	kg/TJ
2023	Hg	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000094936	kg/TJ
2023	Hg	1A2gviii	IMPREGNATED WOOD	0.002151258	kg/TJ
2023	Hg	1A2gviii	MILLED PEAT	0.001012650	kg/TJ
2023	Hg	1A2gviii	MUNICIPAL WASTE - unsorted	0.003660355	kg/TJ
2023	Hg	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000490450	kg/TJ
2023	Hg	1A2gviii	OTHER HEAVY DISTILLATES	0.000029626	kg/TJ
2023	Hg	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Hg	1A2gviii	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Hg	1A2gviii	OTHER WASTE	0.007148530	kg/TJ
2023	Hg	1A2gviii	OTHER WOOD RESIDUE	0.000462357	kg/TJ
2023	Hg	1A2gviii	PLASTIC WASTE	0.002911089	kg/TJ
2023	Hg	1A2gviii	RECOVERED WOOD	0.000378903	kg/TJ
2023	Hg	1A2gviii	RECYCLED AND WASTE OILS	0.001038614	kg/TJ
2023	Hg	1A2gviii	SAWDUST	0.000354194	kg/TJ
2023	Hg	1A2gviii	SAWDUST AND CUTTER CHIPS	0.000500000	kg/TJ
2023	Hg	1A2gviii	SOD PEAT	0.001409852	kg/TJ
2023	Hg	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000314927	kg/TJ
2023	Hg	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000471059	kg/TJ
2023	Hg	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000500000	kg/TJ
2023	Hg	1A2gviii	WOOD RESIDUE CHIPS	0.000491659	kg/TJ
2023	Hg	1A2gviii	WOOD STUMP CHIPS	0.000303952	kg/TJ
2023	Hg	1A3bi	DIESEL OIL (S=001%)	0.000152063	kg/TJ
2023	Hg	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000235580	kg/TJ
2023	Hg	1A3bii	DIESEL OIL (S=001%)	0.000152063	kg/TJ
2023	Hg	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000235147	kg/TJ
2023	Hg	1A3biii	DIESEL OIL (S=001%)	0.000152063	kg/TJ
2023	Hg	1A3biv	DIESEL OIL (S=001%)	0.000147565	kg/TJ
2023	Hg	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000235147	kg/TJ
2023	Hg	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000705405	kg/TJ
2023	Hg	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000492549	kg/TJ
2023	Hg	1A4ai	FOREST WOODFUEL	0.000500000	kg/TJ
2023	Hg	1A4ai	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2023	Hg	1A4ai	SOD PEAT	0.002600000	kg/TJ
2023	Hg	1A4bi	FOREST WOODFUEL	0.000500000	kg/TJ
2023	Hg	1A4bi	SOD PEAT	0.002600000	kg/TJ
2023	Hg	1A4ci	CHIPS FROM ROUNDWOOD	0.000500000	kg/TJ
2023	Hg	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.000500000	kg/TJ
2023	Hg	1A4ci	COAL (S=1.0%)	0.001400000	kg/TJ
2023	Hg	1A4ci	FOREST RESIDUE CHIPS	0.000500000	kg/TJ
2023	Hg	1A4ci	FOREST WOODFUEL	0.000500000	kg/TJ
2023	Hg	1A4ci	HEAVY FUEL OIL (S<1%)	0.000030000	kg/TJ
2023	Hg	1A4ci	OTHER NON-FOSSIL SOLID	0.000500000	kg/TJ
2023	Hg	1A4ci	RECOVERED WOOD	0.000500000	kg/TJ
2023	Hg	1A4ci	SOD PEAT	0.002600000	kg/TJ
2023	Hg	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000724988	kg/TJ

2023	Hg	1A5a	FOREST WOODFUEL	0.000500000	kg/TJ
2023	Hg	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000069285	kg/TJ
2023	Hg	1A5a	OTHER PETROLEUM PRODUCTS	0.000030000	kg/TJ

As Implied emission factors in Finnish air pollutant inventory for 2023

2023	As	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000078097	kg/TJ
2023	As	1A1a	ANIMAL-BASED FUELS	0.000056660	kg/TJ
2023	As	1A1a	ANTHRACITE	0.000884886	kg/TJ
2023	As	1A1a	ASPHALTENE	0.000330547	kg/TJ
2023	As	1A1a	BARK	0.000112151	kg/TJ
2023	As	1A1a	BIO PELLETS (NON-WOOD)	0.000100000	kg/TJ
2023	As	1A1a	BIOLOGICAL SLURRY	0.000100000	kg/TJ
2023	As	1A1a	CHIPS FROM ROUNDWOOD	0.000087705	kg/TJ
2023	As	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000050160	kg/TJ
2023	As	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000333289	kg/TJ
2023	As	1A1a	COAL (S=1.0%)	0.001627917	kg/TJ
2023	As	1A1a	CUTTER CHIPS ETC.	0.000085855	kg/TJ
2023	As	1A1a	DEINKING WASTE	0.000517773	kg/TJ
2023	As	1A1a	DEMOLITION WOOD	0.000034824	kg/TJ
2023	As	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000100000	kg/TJ
2023	As	1A1a	FOREST RESIDUE CHIPS	0.000656739	kg/TJ
2023	As	1A1a	FOREST RESIDUE CHIPS	0.000787818	kg/TJ
2023	As	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000022796	kg/TJ
2023	As	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000037458	kg/TJ
2023	As	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000626296	kg/TJ
2023	As	1A1a	HEAVY FUEL OIL (S<1%)	0.000544987	kg/TJ
2023	As	1A1a	IMPREGNATED WOOD	0.000086089	kg/TJ
2023	As	1A1a	INDUSTRIAL WASTE	0.000122036	kg/TJ
2023	As	1A1a	LIGNIN	0.000100000	kg/TJ
2023	As	1A1a	MILLED PEAT	0.006791189	kg/TJ
2023	As	1A1a	MUNICIPAL WASTE - unsorted	0.001768319	kg/TJ
2023	As	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000093461	kg/TJ
2023	As	1A1a	OTHER FOSSIL SOLID	0.001439405	kg/TJ
2023	As	1A1a	OTHER FUEL	0.000044079	kg/TJ
2023	As	1A1a	OTHER NON-FOSSIL SOLID	0.000098741	kg/TJ
2023	As	1A1a	OTHER NON-FOSSIL SOLID	0.000116299	kg/TJ
2023	As	1A1a	OTHER WASTE	0.000079458	kg/TJ
2023	As	1A1a	OTHER WOOD RESIDUE	0.001034911	kg/TJ
2023	As	1A1a	PAPER	0.000083180	kg/TJ
2023	As	1A1a	PEAT PELLETS AND BRIQUETTES	0.000500000	kg/TJ
2023	As	1A1a	PLASTIC WASTE	0.000009152	kg/TJ
2023	As	1A1a	RECOVERED FUEL (REF 2)	0.001000000	kg/TJ
2023	As	1A1a	RECOVERED WOOD	0.000405489	kg/TJ
2023	As	1A1a	RECYCLED AND WASTE OILS	0.000595105	kg/TJ
2023	As	1A1a	SAWDUST	0.000126603	kg/TJ
2023	As	1A1a	SOD PEAT	0.080085497	kg/TJ
2023	As	1A1a	SOLID RECOVERED FUEL (SRF)	0.000756802	kg/TJ
2023	As	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000172800	kg/TJ
2023	As	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000260339	kg/TJ
2023	As	1A1a	WOOD RESIDUE CHIPS	0.000575030	kg/TJ
2023	As	1A1a	WOOD STUMP CHIPS	0.000504434	kg/TJ
2023	As	1A1b	COKE (S=1.0%)	0.130000000	kg/TJ
2023	As	1A1b	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2023	As	1A1b	PETROLEUM COKE	0.130000000	kg/TJ
2023	As	1A1b	SULPHUR CONCENTRATE	0.000012821	kg/TJ

2023	As	1A2a	WOOD RESIDUE CHIPS	0.001000000	kg/TJ
2023	As	1A2b	HEAVY FUEL OIL (S<1%)	0.000358750	kg/TJ
2023	As	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.002000000	kg/TJ
2023	As	1A2c	HEAVY FUEL OIL (S<0,1%)	0.001858824	kg/TJ
2023	As	1A2c	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2023	As	1A2c	OTHER FOSSIL LIQUID	0.002000000	kg/TJ
2023	As	1A2c	OTHER FUEL	0.000100000	kg/TJ
2023	As	1A2c	OTHER NON-FOSSIL SOLID	0.001390821	kg/TJ
2023	As	1A2c	OTHER WASTE	0.000100000	kg/TJ
2023	As	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001000000	kg/TJ
2023	As	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000069935	kg/TJ
2023	As	1A2d	ANIMAL-BASED FUELS	0.000012897	kg/TJ
2023	As	1A2d	BARK	0.000126456	kg/TJ
2023	As	1A2d	BIOLOGICAL SLURRY	0.000077438	kg/TJ
2023	As	1A2d	BLACK LIQUOR	0.000772980	kg/TJ
2023	As	1A2d	CHIPS FROM ROUNDWOOD	0.000053684	kg/TJ
2023	As	1A2d	COAL (S=1.0%)	0.000452352	kg/TJ
2023	As	1A2d	CUTTER CHIPS ETC.	0.000033327	kg/TJ
2023	As	1A2d	DEMOLITION WOOD	0.000012897	kg/TJ
2023	As	1A2d	FOREST RESIDUE CHIPS	0.000613641	kg/TJ
2023	As	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000858966	kg/TJ
2023	As	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000427473	kg/TJ
2023	As	1A2d	HEAVY FUEL OIL (S<1%)	0.000401505	kg/TJ
2023	As	1A2d	IMPREGNATED WOOD	0.000012897	kg/TJ
2023	As	1A2d	INDUSTRIAL WASTE	0.000197791	kg/TJ
2023	As	1A2d	METHANOL	0.000005431	kg/TJ
2023	As	1A2d	MILLED PEAT	0.000403394	kg/TJ
2023	As	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000100000	kg/TJ
2023	As	1A2d	OTHER WOOD RESIDUE	0.000267392	kg/TJ
2023	As	1A2d	PAPER	0.000047324	kg/TJ
2023	As	1A2d	PLASTIC WASTE	0.000005677	kg/TJ
2023	As	1A2d	RECOVERED WOOD	0.000014064	kg/TJ
2023	As	1A2d	RECYCLED AND WASTE OILS	0.000128973	kg/TJ
2023	As	1A2d	SAWDUST	0.000201036	kg/TJ
2023	As	1A2d	SOLID RECOVERED FUEL (SRF)	0.000509016	kg/TJ
2023	As	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000047062	kg/TJ
2023	As	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001000000	kg/TJ
2023	As	1A2d	WOOD RESIDUE CHIPS	0.000320690	kg/TJ
2023	As	1A2d	WOOD STUMP CHIPS	0.000012897	kg/TJ
2023	As	1A2e	ANIMAL FATS AND OILS	0.000100000	kg/TJ
2023	As	1A2e	ANIMAL-BASED FUELS	0.001000000	kg/TJ
2023	As	1A2e	BIO-FUEL OIL	0.000983522	kg/TJ
2023	As	1A2e	CHIPS FROM ROUNDWOOD	0.000100000	kg/TJ
2023	As	1A2e	COAL (S=1.0%)	0.007795861	kg/TJ
2023	As	1A2e	COKE (S=1.0%)	0.130000000	kg/TJ
2023	As	1A2e	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2023	As	1A2e	HEAVY FUEL OIL (S<1%)	0.001357136	kg/TJ
2023	As	1A2e	MILLED PEAT	0.033399588	kg/TJ
2023	As	1A2e	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2023	As	1A2e	OTHER NON-FOSSIL SOLID	0.000097238	kg/TJ
2023	As	1A2e	PEAT PELLETS AND BRIQUETTES	0.000250000	kg/TJ
2023	As	1A2e	RECOVERED WOOD	0.000100000	kg/TJ
2023	As	1A2e	SAWDUST	0.000100000	kg/TJ
2023	As	1A2e	SOD PEAT	0.081000000	kg/TJ
2023	As	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000968624	kg/TJ
2023	As	1A2e	WOOD STUMP CHIPS	0.001000000	kg/TJ

2023	As	1A2f	CHIPS FROM ROUNDWOOD	0.001000000	kg/TJ
2023	As	1A2f	COAL (S=1.0%)	0.075512261	kg/TJ
2023	As	1A2f	COKE (S=1.0%)	0.130000000	kg/TJ
2023	As	1A2f	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2023	As	1A2f	HEAVY FUEL OIL (S<1%)	0.000623144	kg/TJ
2023	As	1A2f	INDUSTRIAL WASTE	0.000069888	kg/TJ
2023	As	1A2f	OTHER FOSSIL LIQUID	0.000012810	kg/TJ
2023	As	1A2f	OTHER FUEL	0.000100000	kg/TJ
2023	As	1A2f	OTHER NON-FOSSIL SOLID	0.000007249	kg/TJ
2023	As	1A2f	OTHER WASTE	0.000006989	kg/TJ
2023	As	1A2f	PETROLEUM COKE	0.000617806	kg/TJ
2023	As	1A2f	PLASTIC WASTE	0.000000222	kg/TJ
2023	As	1A2f	RECYCLED AND WASTE OILS	0.000745090	kg/TJ
2023	As	1A2f	REED CANARY GRASS	0.000006989	kg/TJ
2023	As	1A2f	RUBBER WASTE	0.000006963	kg/TJ
2023	As	1A2f	SAWDUST	0.000007249	kg/TJ
2023	As	1A2f	SOLID RECOVERED FUEL (SRF)	0.000027608	kg/TJ
2023	As	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000072492	kg/TJ
2023	As	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000001859	kg/TJ
2023	As	1A2gviii	BARK	0.000339681	kg/TJ
2023	As	1A2gviii	BIO PELLETS (NON-WOOD)	0.000100000	kg/TJ
2023	As	1A2gviii	BIOLOGICAL SLURRY	0.000100000	kg/TJ
2023	As	1A2gviii	CHIPS FROM ROUNDWOOD	0.000046780	kg/TJ
2023	As	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.001000000	kg/TJ
2023	As	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.001000000	kg/TJ
2023	As	1A2gviii	CUTTER CHIPS ETC.	0.000118442	kg/TJ
2023	As	1A2gviii	DEMOLITION WOOD	0.000003863	kg/TJ
2023	As	1A2gviii	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2023	As	1A2gviii	FOREST RESIDUE CHIPS	0.000449796	kg/TJ
2023	As	1A2gviii	HAZARDOUS WASTE	0.0000060353	kg/TJ
2023	As	1A2gviii	HEAVY FUEL OIL (S<1%)	0.001606654	kg/TJ
2023	As	1A2gviii	IMPREGNATED WOOD	0.000016497	kg/TJ
2023	As	1A2gviii	MILLED PEAT	0.001443570	kg/TJ
2023	As	1A2gviii	MUNICIPAL WASTE - unsorted	0.000099146	kg/TJ
2023	As	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000095385	kg/TJ
2023	As	1A2gviii	OTHER HEAVY DISTILLATES	0.001376324	kg/TJ
2023	As	1A2gviii	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2023	As	1A2gviii	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2023	As	1A2gviii	OTHER WASTE	0.000108350	kg/TJ
2023	As	1A2gviii	OTHER WOOD RESIDUE	0.000613293	kg/TJ
2023	As	1A2gviii	PLASTIC WASTE	0.000030464	kg/TJ
2023	As	1A2gviii	RECOVERED WOOD	0.000182060	kg/TJ
2023	As	1A2gviii	RECYCLED AND WASTE OILS	0.000240162	kg/TJ
2023	As	1A2gviii	SAWDUST	0.000039388	kg/TJ
2023	As	1A2gviii	SAWDUST AND CUTTER CHIPS	0.001000000	kg/TJ
2023	As	1A2gviii	SOD PEAT	0.003333055	kg/TJ
2023	As	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000105639	kg/TJ
2023	As	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000134333	kg/TJ
2023	As	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001000000	kg/TJ
2023	As	1A2gviii	WOOD RESIDUE CHIPS	0.000601753	kg/TJ
2023	As	1A2gviii	WOOD STUMP CHIPS	0.000052605	kg/TJ
2023	As	1A3bi	DIESEL OIL (S=001%)	0.000002869	kg/TJ
2023	As	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000008123	kg/TJ
2023	As	1A3bii	DIESEL OIL (S=001%)	0.000002869	kg/TJ
2023	As	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000008109	kg/TJ
2023	As	1A3biii	DIESEL OIL (S=001%)	0.000002869	kg/TJ

2023	As	1A3biv	DIESEL OIL (S=001%)	0.000002784	kg/TJ
2023	As	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000008109	kg/TJ
2023	As	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000940540	kg/TJ
2023	As	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.016746652	kg/TJ
2023	As	1A4ai	FOREST WOODFUEL	0.001000000	kg/TJ
2023	As	1A4ai	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2023	As	1A4ai	SOD PEAT	0.081000000	kg/TJ
2023	As	1A4bi	FOREST WOODFUEL	0.001000000	kg/TJ
2023	As	1A4bi	SOD PEAT	0.081000000	kg/TJ
2023	As	1A4ci	CHIPS FROM ROUNDWOOD	0.000100000	kg/TJ
2023	As	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.001000000	kg/TJ
2023	As	1A4ci	COAL (S=1.0%)	0.007800000	kg/TJ
2023	As	1A4ci	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2023	As	1A4ci	FOREST WOODFUEL	0.001000000	kg/TJ
2023	As	1A4ci	HEAVY FUEL OIL (S<1%)	0.002000000	kg/TJ
2023	As	1A4ci	OTHER NON-FOSSIL SOLID	0.000100000	kg/TJ
2023	As	1A4ci	RECOVERED WOOD	0.000100000	kg/TJ
2023	As	1A4ci	SOD PEAT	0.081000000	kg/TJ
2023	As	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000966651	kg/TJ
2023	As	1A5a	FOREST WOODFUEL	0.001000000	kg/TJ
2023	As	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000092380	kg/TJ
2023	As	1A5a	OTHER PETROLEUM PRODUCTS	0.002000000	kg/TJ

Cr Implied emission factors in Finnish air pollutant inventory for 2023

2023	Cr	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.001043510	kg/TJ
2023	Cr	1A1a	ANIMAL-BASED FUELS	0.000142103	kg/TJ
2023	Cr	1A1a	ANTHRACITE	0.001297833	kg/TJ
2023	Cr	1A1a	ASPHALTENE	0.000244748	kg/TJ
2023	Cr	1A1a	BARK	0.002327411	kg/TJ
2023	Cr	1A1a	BIO PELLETS (NON-WOOD)	0.002000000	kg/TJ
2023	Cr	1A1a	BIOLOGICAL SLURRY	0.002000000	kg/TJ
2023	Cr	1A1a	CHIPS FROM ROUNDWOOD	0.002289952	kg/TJ
2023	Cr	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000436460	kg/TJ
2023	Cr	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.009977621	kg/TJ
2023	Cr	1A1a	COAL (S=1.0%)	0.004196323	kg/TJ
2023	Cr	1A1a	CUTTER CHIPS ETC.	0.001556221	kg/TJ
2023	Cr	1A1a	DEINKING WASTE	0.017318346	kg/TJ
2023	Cr	1A1a	DEMOLITION WOOD	0.000256083	kg/TJ
2023	Cr	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.002000000	kg/TJ
2023	Cr	1A1a	FOREST RESIDUE CHIPS	0.006068059	kg/TJ
2023	Cr	1A1a	FOREST RESIDUE CHIPS	0.027286551	kg/TJ
2023	Cr	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000062611	kg/TJ
2023	Cr	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000793793	kg/TJ
2023	Cr	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000637993	kg/TJ
2023	Cr	1A1a	HEAVY FUEL OIL (S<1%)	0.000381135	kg/TJ
2023	Cr	1A1a	IMPREGNATED WOOD	0.001293259	kg/TJ
2023	Cr	1A1a	INDUSTRIAL WASTE	0.006180379	kg/TJ
2023	Cr	1A1a	LIGNIN	0.002000000	kg/TJ
2023	Cr	1A1a	MILLED PEAT	0.007893019	kg/TJ
2023	Cr	1A1a	MUNICIPAL WASTE - unsorted	0.006881714	kg/TJ
2023	Cr	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001689443	kg/TJ
2023	Cr	1A1a	OTHER FOSSIL SOLID	0.000219370	kg/TJ
2023	Cr	1A1a	OTHER FUEL	0.002000000	kg/TJ
2023	Cr	1A1a	OTHER NON-FOSSIL SOLID	0.001979779	kg/TJ
2023	Cr	1A1a	OTHER NON-FOSSIL SOLID	0.002129139	kg/TJ

2023	Cr	1A1a	OTHER WASTE	0.000056195	kg/TJ
2023	Cr	1A1a	OTHER WOOD RESIDUE	0.018834690	kg/TJ
2023	Cr	1A1a	PAPER	0.001278974	kg/TJ
2023	Cr	1A1a	PEAT PELLETS AND BRIQUETTES	0.000800000	kg/TJ
2023	Cr	1A1a	PLASTIC WASTE	0.000600000	kg/TJ
2023	Cr	1A1a	RECOVERED FUEL (REF 2)	0.035000000	kg/TJ
2023	Cr	1A1a	RECOVERED WOOD	0.000975798	kg/TJ
2023	Cr	1A1a	RECYCLED AND WASTE OILS	0.000066078	kg/TJ
2023	Cr	1A1a	SAWDUST	0.002778018	kg/TJ
2023	Cr	1A1a	SOD PEAT	0.138407652	kg/TJ
2023	Cr	1A1a	SOLID RECOVERED FUEL (SRF)	0.007241780	kg/TJ
2023	Cr	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003391373	kg/TJ
2023	Cr	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.004969868	kg/TJ
2023	Cr	1A1a	WOOD RESIDUE CHIPS	0.013814904	kg/TJ
2023	Cr	1A1a	WOOD STUMP CHIPS	0.015847168	kg/TJ
2023	Cr	1A1b	COKE (S=1.0%)	1.000000000	kg/TJ
2023	Cr	1A1b	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2023	Cr	1A1b	PETROLEUM COKE	1.000000000	kg/TJ
2023	Cr	1A1b	SULPHUR CONCENTRATE	0.000600000	kg/TJ
2023	Cr	1A2a	WOOD RESIDUE CHIPS	0.035000000	kg/TJ
2023	Cr	1A2b	COAL (S=1.0%)	1.000000000	kg/TJ
2023	Cr	1A2b	COKE (S=1.0%)	1.000000000	kg/TJ
2023	Cr	1A2b	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2023	Cr	1A2b	OTHER HEAVY DISTILLATES	0.001000000	kg/TJ
2023	Cr	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.001000000	kg/TJ
2023	Cr	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000929412	kg/TJ
2023	Cr	1A2c	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2023	Cr	1A2c	OTHER FOSSIL LIQUID	0.001000000	kg/TJ
2023	Cr	1A2c	OTHER FUEL	0.002000000	kg/TJ
2023	Cr	1A2c	OTHER NON-FOSSIL SOLID	0.227167362	kg/TJ
2023	Cr	1A2c	OTHER WASTE	0.002000000	kg/TJ
2023	Cr	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.035000000	kg/TJ
2023	Cr	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000888450	kg/TJ
2023	Cr	1A2d	ANIMAL-BASED FUELS	0.000027980	kg/TJ
2023	Cr	1A2d	BARK	0.001416817	kg/TJ
2023	Cr	1A2d	BIOLOGICAL SLURRY	0.000171025	kg/TJ
2023	Cr	1A2d	BLACK LIQUOR	0.000431909	kg/TJ
2023	Cr	1A2d	CHIPS FROM ROUNDWOOD	0.001462109	kg/TJ
2023	Cr	1A2d	COAL (S=1.0%)	0.000586804	kg/TJ
2023	Cr	1A2d	CUTTER CHIPS ETC.	0.000099542	kg/TJ
2023	Cr	1A2d	DEMOLITION WOOD	0.000027980	kg/TJ
2023	Cr	1A2d	FOREST RESIDUE CHIPS	0.000461266	kg/TJ
2023	Cr	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000504308	kg/TJ
2023	Cr	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000245827	kg/TJ
2023	Cr	1A2d	HEAVY FUEL OIL (S<0,5%)	0.001000000	kg/TJ
2023	Cr	1A2d	HEAVY FUEL OIL (S<1%)	0.000495406	kg/TJ
2023	Cr	1A2d	IMPREGNATED WOOD	0.000027980	kg/TJ
2023	Cr	1A2d	INDUSTRIAL WASTE	0.003751300	kg/TJ
2023	Cr	1A2d	METHANOL	0.000108654	kg/TJ
2023	Cr	1A2d	MILLED PEAT	0.000164349	kg/TJ
2023	Cr	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001848942	kg/TJ
2023	Cr	1A2d	OTHER WOOD RESIDUE	0.009316632	kg/TJ
2023	Cr	1A2d	PAPER	0.000517504	kg/TJ
2023	Cr	1A2d	PLASTIC WASTE	0.000238872	kg/TJ
2023	Cr	1A2d	RECOVERED WOOD	0.000355726	kg/TJ
2023	Cr	1A2d	RECYCLED AND WASTE OILS	0.000006995	kg/TJ

2023	Cr	1A2d	SAWDUST	0.003783645	kg/TJ
2023	Cr	1A2d	SOLID RECOVERED FUEL (SRF)	0.002778102	kg/TJ
2023	Cr	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.001401112	kg/TJ
2023	Cr	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.005175840	kg/TJ
2023	Cr	1A2d	WOOD RESIDUE CHIPS	0.001945069	kg/TJ
2023	Cr	1A2d	WOOD STUMP CHIPS	0.000027980	kg/TJ
2023	Cr	1A2e	ANIMAL FATS AND OILS	0.002000000	kg/TJ
2023	Cr	1A2e	ANIMAL-BASED FUELS	0.035000000	kg/TJ
2023	Cr	1A2e	BIO-FUEL OIL	0.000491761	kg/TJ
2023	Cr	1A2e	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2023	Cr	1A2e	COAL (S=1.0%)	0.004982921	kg/TJ
2023	Cr	1A2e	COKE (S=1.0%)	1.000000000	kg/TJ
2023	Cr	1A2e	FOREST RESIDUE CHIPS	0.035000000	kg/TJ
2023	Cr	1A2e	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2023	Cr	1A2e	MILLED PEAT	0.057583533	kg/TJ
2023	Cr	1A2e	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Cr	1A2e	OTHER NON-FOSSIL SOLID	0.001944756	kg/TJ
2023	Cr	1A2e	PEAT PELLETS AND BRIQUETTES	0.000400000	kg/TJ
2023	Cr	1A2e	RECOVERED WOOD	0.002000000	kg/TJ
2023	Cr	1A2e	SAWDUST	0.002000000	kg/TJ
2023	Cr	1A2e	SOD PEAT	0.140000000	kg/TJ
2023	Cr	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.033901838	kg/TJ
2023	Cr	1A2e	WOOD STUMP CHIPS	0.035000000	kg/TJ
2023	Cr	1A2f	CHIPS FROM ROUNDWOOD	0.035000000	kg/TJ
2023	Cr	1A2f	COAL (S=1.0%)	0.582976574	kg/TJ
2023	Cr	1A2f	COKE (S=1.0%)	1.000000000	kg/TJ
2023	Cr	1A2f	FOREST RESIDUE CHIPS	0.035000000	kg/TJ
2023	Cr	1A2f	HEAVY FUEL OIL (S<0,1%)	0.001000000	kg/TJ
2023	Cr	1A2f	HEAVY FUEL OIL (S<1%)	0.000893685	kg/TJ
2023	Cr	1A2f	INDUSTRIAL WASTE	0.110471910	kg/TJ
2023	Cr	1A2f	OTHER FOSSIL LIQUID	0.000001610	kg/TJ
2023	Cr	1A2f	OTHER FUEL	0.002000000	kg/TJ
2023	Cr	1A2f	OTHER NON-FOSSIL SOLID	0.000030966	kg/TJ
2023	Cr	1A2f	OTHER WASTE	0.006312681	kg/TJ
2023	Cr	1A2f	PETROLEUM COKE	0.012199102	kg/TJ
2023	Cr	1A2f	PLASTIC WASTE	0.000327012	kg/TJ
2023	Cr	1A2f	RECYCLED AND WASTE OILS	0.000364711	kg/TJ
2023	Cr	1A2f	REED CANARY GRASS	0.006312681	kg/TJ
2023	Cr	1A2f	RUBBER WASTE	0.006287313	kg/TJ
2023	Cr	1A2f	SAWDUST	0.000030966	kg/TJ
2023	Cr	1A2f	SOLID RECOVERED FUEL (SRF)	0.036935360	kg/TJ
2023	Cr	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000541908	kg/TJ
2023	Cr	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.001208313	kg/TJ
2023	Cr	1A2gvii	LIQUID GAS	0.001086957	kg/TJ
2023	Cr	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.001351417	kg/TJ
2023	Cr	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000472661	kg/TJ
2023	Cr	1A2gviii	BARK	0.011104527	kg/TJ
2023	Cr	1A2gviii	BIO PELLETS (NON-WOOD)	0.002000000	kg/TJ
2023	Cr	1A2gviii	BIOLOGICAL SLURRY	0.002000000	kg/TJ
2023	Cr	1A2gviii	CHIPS FROM ROUNDWOOD	0.000949702	kg/TJ
2023	Cr	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.035000000	kg/TJ
2023	Cr	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.035000000	kg/TJ
2023	Cr	1A2gviii	CUTTER CHIPS ETC.	0.002858550	kg/TJ
2023	Cr	1A2gviii	DEMOLITION WOOD	0.000497655	kg/TJ
2023	Cr	1A2gviii	FOREST RESIDUE CHIPS	0.035000000	kg/TJ
2023	Cr	1A2gviii	FOREST RESIDUE CHIPS	0.012174200	kg/TJ

2023	Cr	1A2gviii	HAZARDOUS WASTE	0.000417383	kg/TJ
2023	Cr	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.001000000	kg/TJ
2023	Cr	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.001000000	kg/TJ
2023	Cr	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000802987	kg/TJ
2023	Cr	1A2gviii	IMPREGNATED WOOD	0.000369541	kg/TJ
2023	Cr	1A2gviii	MILLED PEAT	0.000505932	kg/TJ
2023	Cr	1A2gviii	MUNICIPAL WASTE - unsorted	0.000449262	kg/TJ
2023	Cr	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001928178	kg/TJ
2023	Cr	1A2gviii	OTHER HEAVY DISTILLATES	0.000691494	kg/TJ
2023	Cr	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Cr	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Cr	1A2gviii	OTHER WASTE	0.000420404	kg/TJ
2023	Cr	1A2gviii	OTHER WOOD RESIDUE	0.020820736	kg/TJ
2023	Cr	1A2gviii	PLASTIC WASTE	0.000377275	kg/TJ
2023	Cr	1A2gviii	RECOVERED WOOD	0.006155301	kg/TJ
2023	Cr	1A2gviii	RECYCLED AND WASTE OILS	0.000119234	kg/TJ
2023	Cr	1A2gviii	SAWDUST	0.001056718	kg/TJ
2023	Cr	1A2gviii	SAWDUST AND CUTTER CHIPS	0.035000000	kg/TJ
2023	Cr	1A2gviii	SOD PEAT	0.005616306	kg/TJ
2023	Cr	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.010642300	kg/TJ
2023	Cr	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003490197	kg/TJ
2023	Cr	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.035000000	kg/TJ
2023	Cr	1A2gviii	WOOD RESIDUE CHIPS	0.020722924	kg/TJ
2023	Cr	1A2gviii	WOOD STUMP CHIPS	0.009197937	kg/TJ
2023	Cr	1A3bi	DIESEL OIL (S=001%)	0.000243874	kg/TJ
2023	Cr	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000170592	kg/TJ
2023	Cr	1A3bii	DIESEL OIL (S=001%)	0.000243874	kg/TJ
2023	Cr	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000170279	kg/TJ
2023	Cr	1A3biii	DIESEL OIL (S=001%)	0.000243874	kg/TJ
2023	Cr	1A3biv	DIESEL OIL (S=001%)	0.000236661	kg/TJ
2023	Cr	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000170279	kg/TJ
2023	Cr	1A3c	GASOIL (FOR NON-ROAD USE)	0.001208313	kg/TJ
2023	Cr	1A3dii	GASOIL (FOR NON-ROAD USE)	0.001175675	kg/TJ
2023	Cr	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.017731749	kg/TJ
2023	Cr	1A4ai	FOREST WOODFUEL	0.035000000	kg/TJ
2023	Cr	1A4ai	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2023	Cr	1A4ai	SOD PEAT	0.140000000	kg/TJ
2023	Cr	1A4aii	GASOIL (FOR NON-ROAD USE)	0.001208313	kg/TJ
2023	Cr	1A4aii	MOTOR GASOLINE (S=0.001%)	0.001351417	kg/TJ
2023	Cr	1A4bi	FOREST WOODFUEL	0.035000000	kg/TJ
2023	Cr	1A4bi	SOD PEAT	0.140000000	kg/TJ
2023	Cr	1A4bii	GASOIL (FOR NON-ROAD USE)	0.001208313	kg/TJ
2023	Cr	1A4bii	MOTOR GASOLINE (S=0.001%)	0.001351417	kg/TJ
2023	Cr	1A4ci	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2023	Cr	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.035000000	kg/TJ
2023	Cr	1A4ci	COAL (S=1.0%)	0.005000000	kg/TJ
2023	Cr	1A4ci	FOREST RESIDUE CHIPS	0.035000000	kg/TJ
2023	Cr	1A4ci	FOREST WOODFUEL	0.035000000	kg/TJ
2023	Cr	1A4ci	HEAVY FUEL OIL (S<1%)	0.001000000	kg/TJ
2023	Cr	1A4ci	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Cr	1A4ci	RECOVERED WOOD	0.002000000	kg/TJ
2023	Cr	1A4ci	SOD PEAT	0.140000000	kg/TJ
2023	Cr	1A4cii	GASOIL (FOR NON-ROAD USE)	0.001208313	kg/TJ
2023	Cr	1A4cii	MOTOR GASOLINE (S=0.001%)	0.001351417	kg/TJ
2023	Cr	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.001208313	kg/TJ
2023	Cr	1A5a	FOREST WOODFUEL	0.035000000	kg/TJ

2023	Cr	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000130761	kg/TJ
2023	Cr	1A5a	OTHER PETROLEUM PRODUCTS	0.001000000	kg/TJ

Cu Implied emission factors in Finnish air pollutant inventory for 2023

2023	Cu	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.002690576	kg/TJ
2023	Cu	1A1a	ANIMAL-BASED FUELS	0.000481418	kg/TJ
2023	Cu	1A1a	ANTHRACITE	0.001533802	kg/TJ
2023	Cu	1A1a	ASPHALTENE	0.000402643	kg/TJ
2023	Cu	1A1a	BARK	0.004751569	kg/TJ
2023	Cu	1A1a	BIO PELLETS (NON-WOOD)	0.005000000	kg/TJ
2023	Cu	1A1a	BIOLOGICAL SLURRY	0.005000000	kg/TJ
2023	Cu	1A1a	CHIPS FROM ROUNDWOOD	0.004147367	kg/TJ
2023	Cu	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000765324	kg/TJ
2023	Cu	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.016879309	kg/TJ
2023	Cu	1A1a	COAL (S=1.0%)	0.001815662	kg/TJ
2023	Cu	1A1a	CUTTER CHIPS ETC.	0.003227601	kg/TJ
2023	Cu	1A1a	DEINKING WASTE	0.026352846	kg/TJ
2023	Cu	1A1a	DEMOLITION WOOD	0.000797616	kg/TJ
2023	Cu	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.005000000	kg/TJ
2023	Cu	1A1a	FOREST RESIDUE CHIPS	0.039853227	kg/TJ
2023	Cu	1A1a	FOREST RESIDUE CHIPS	0.009289487	kg/TJ
2023	Cu	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000111349	kg/TJ
2023	Cu	1A1a	HEAVY FUEL OIL (S<0,1%)	0.002007986	kg/TJ
2023	Cu	1A1a	HEAVY FUEL OIL (S<0,5%)	0.002319619	kg/TJ
2023	Cu	1A1a	HEAVY FUEL OIL (S<1%)	0.000805416	kg/TJ
2023	Cu	1A1a	IMPREGNATED WOOD	0.003525029	kg/TJ
2023	Cu	1A1a	INDUSTRIAL WASTE	0.017537130	kg/TJ
2023	Cu	1A1a	LIGNIN	0.005000000	kg/TJ
2023	Cu	1A1a	MILLED PEAT	0.012843744	kg/TJ
2023	Cu	1A1a	MUNICIPAL WASTE - unsorted	0.010747736	kg/TJ
2023	Cu	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.004835380	kg/TJ
2023	Cu	1A1a	OTHER FOSSIL SOLID	0.000331192	kg/TJ
2023	Cu	1A1a	OTHER FUEL	0.005000000	kg/TJ
2023	Cu	1A1a	OTHER NON-FOSSIL SOLID	0.005044580	kg/TJ
2023	Cu	1A1a	OTHER NON-FOSSIL SOLID	0.004953122	kg/TJ
2023	Cu	1A1a	OTHER WASTE	0.000311102	kg/TJ
2023	Cu	1A1a	OTHER WOOD RESIDUE	0.027808925	kg/TJ
2023	Cu	1A1a	PAPER	0.003246397	kg/TJ
2023	Cu	1A1a	PEAT PELLETS AND BRIQUETTES	0.001300000	kg/TJ
2023	Cu	1A1a	PLASTIC WASTE	0.002250000	kg/TJ
2023	Cu	1A1a	RECOVERED FUEL (REF 2)	0.051000000	kg/TJ
2023	Cu	1A1a	RECOVERED WOOD	0.001739886	kg/TJ
2023	Cu	1A1a	RECYCLED AND WASTE OILS	0.000155728	kg/TJ
2023	Cu	1A1a	SAWDUST	0.004958665	kg/TJ
2023	Cu	1A1a	SOD PEAT	0.217515592	kg/TJ
2023	Cu	1A1a	SOLID RECOVERED FUEL (SRF)	0.011885861	kg/TJ
2023	Cu	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.008983149	kg/TJ
2023	Cu	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.014439214	kg/TJ
2023	Cu	1A1a	WOOD RESIDUE CHIPS	0.023792694	kg/TJ
2023	Cu	1A1a	WOOD STUMP CHIPS	0.021544922	kg/TJ
2023	Cu	1A1b	COKE (S=1.0%)	0.350000000	kg/TJ
2023	Cu	1A1b	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2023	Cu	1A1b	PETROLEUM COKE	0.350000000	kg/TJ
2023	Cu	1A1b	SULPHUR CONCENTRATE	0.002250000	kg/TJ
2023	Cu	1A2a	WOOD RESIDUE CHIPS	0.051000000	kg/TJ

2023	Cu	1A2b	HEAVY FUEL OIL (S<1%)	0.001423621	kg/TJ
2023	Cu	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.002500000	kg/TJ
2023	Cu	1A2c	HEAVY FUEL OIL (S<0,1%)	0.002288235	kg/TJ
2023	Cu	1A2c	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2023	Cu	1A2c	OTHER FOSSIL LIQUID	0.002500000	kg/TJ
2023	Cu	1A2c	OTHER FUEL	0.005000000	kg/TJ
2023	Cu	1A2c	OTHER NON-FOSSIL SOLID	0.103384330	kg/TJ
2023	Cu	1A2c	OTHER WASTE	0.005000000	kg/TJ
2023	Cu	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051000000	kg/TJ
2023	Cu	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.002752891	kg/TJ
2023	Cu	1A2d	ANIMAL-BASED FUELS	0.001050360	kg/TJ
2023	Cu	1A2d	BARK	0.004011657	kg/TJ
2023	Cu	1A2d	BIOLOGICAL SLURRY	0.003926886	kg/TJ
2023	Cu	1A2d	CHIPS FROM ROUNDWOOD	0.004245940	kg/TJ
2023	Cu	1A2d	COAL (S=1.0%)	0.000266540	kg/TJ
2023	Cu	1A2d	CUTTER CHIPS ETC.	0.002638268	kg/TJ
2023	Cu	1A2d	DEMOLITION WOOD	0.001050360	kg/TJ
2023	Cu	1A2d	FOREST RESIDUE CHIPS	0.002084391	kg/TJ
2023	Cu	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.007830212	kg/TJ
2023	Cu	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000520040	kg/TJ
2023	Cu	1A2d	HEAVY FUEL OIL (S<0,5%)	0.002500000	kg/TJ
2023	Cu	1A2d	HEAVY FUEL OIL (S<1%)	0.010379448	kg/TJ
2023	Cu	1A2d	IMPREGNATED WOOD	0.001050360	kg/TJ
2023	Cu	1A2d	INDUSTRIAL WASTE	0.006892849	kg/TJ
2023	Cu	1A2d	METHANOL	0.001942224	kg/TJ
2023	Cu	1A2d	MILLED PEAT	0.001177363	kg/TJ
2023	Cu	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.004517344	kg/TJ
2023	Cu	1A2d	OTHER WOOD RESIDUE	0.018790530	kg/TJ
2023	Cu	1A2d	PAPER	0.001310349	kg/TJ
2023	Cu	1A2d	PLASTIC WASTE	0.000318863	kg/TJ
2023	Cu	1A2d	RECOVERED WOOD	0.001274834	kg/TJ
2023	Cu	1A2d	RECYCLED AND WASTE OILS	0.000210072	kg/TJ
2023	Cu	1A2d	SAWDUST	0.089994406	kg/TJ
2023	Cu	1A2d	SOLID RECOVERED FUEL (SRF)	0.028079251	kg/TJ
2023	Cu	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.004117600	kg/TJ
2023	Cu	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.109907811	kg/TJ
2023	Cu	1A2d	WOOD RESIDUE CHIPS	0.003132765	kg/TJ
2023	Cu	1A2d	WOOD STUMP CHIPS	0.001050360	kg/TJ
2023	Cu	1A2e	ANIMAL FATS AND OILS	0.005000000	kg/TJ
2023	Cu	1A2e	ANIMAL-BASED FUELS	0.051000000	kg/TJ
2023	Cu	1A2e	BIO-FUEL OIL	0.001229403	kg/TJ
2023	Cu	1A2e	CHIPS FROM ROUNDWOOD	0.005000000	kg/TJ
2023	Cu	1A2e	COAL (S=1.0%)	0.004018485	kg/TJ
2023	Cu	1A2e	COKE (S=1.0%)	0.350000000	kg/TJ
2023	Cu	1A2e	FOREST RESIDUE CHIPS	0.032660040	kg/TJ
2023	Cu	1A2e	HEAVY FUEL OIL (S<1%)	0.002501035	kg/TJ
2023	Cu	1A2e	MILLED PEAT	0.090501079	kg/TJ
2023	Cu	1A2e	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2023	Cu	1A2e	OTHER NON-FOSSIL SOLID	0.004861890	kg/TJ
2023	Cu	1A2e	PEAT PELLETS AND BRIQUETTES	0.000650000	kg/TJ
2023	Cu	1A2e	RECOVERED WOOD	0.005000000	kg/TJ
2023	Cu	1A2e	SAWDUST	0.005000000	kg/TJ
2023	Cu	1A2e	SOD PEAT	0.220000000	kg/TJ
2023	Cu	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.049399821	kg/TJ
2023	Cu	1A2e	WOOD STUMP CHIPS	0.051000000	kg/TJ
2023	Cu	1A2f	CHIPS FROM ROUNDWOOD	0.051000000	kg/TJ

2023	Cu	1A2f	COAL (S=1.0%)	0.202680042	kg/TJ
2023	Cu	1A2f	COKE (S=1.0%)	0.350000000	kg/TJ
2023	Cu	1A2f	FOREST RESIDUE CHIPS	0.051000000	kg/TJ
2023	Cu	1A2f	HEAVY FUEL OIL (S<0,1%)	0.002500000	kg/TJ
2023	Cu	1A2f	HEAVY FUEL OIL (S<1%)	0.002204226	kg/TJ
2023	Cu	1A2f	INDUSTRIAL WASTE	0.001928354	kg/TJ
2023	Cu	1A2f	OTHER FOSSIL LIQUID	0.000003751	kg/TJ
2023	Cu	1A2f	OTHER FUEL	0.005000000	kg/TJ
2023	Cu	1A2f	OTHER NON-FOSSIL SOLID	0.000103855	kg/TJ
2023	Cu	1A2f	OTHER WASTE	0.000189054	kg/TJ
2023	Cu	1A2f	PETROLEUM COKE	0.000245766	kg/TJ
2023	Cu	1A2f	PLASTIC WASTE	0.000017449	kg/TJ
2023	Cu	1A2f	RECYCLED AND WASTE OILS	0.000730876	kg/TJ
2023	Cu	1A2f	REED CANARY GRASS	0.000189054	kg/TJ
2023	Cu	1A2f	RUBBER WASTE	0.000188324	kg/TJ
2023	Cu	1A2f	SAWDUST	0.000103855	kg/TJ
2023	Cu	1A2f	SOLID RECOVERED FUEL (SRF)	0.000695038	kg/TJ
2023	Cu	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.001059325	kg/TJ
2023	Cu	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.041082652	kg/TJ
2023	Cu	1A2gvii	LIQUID GAS	0.036956522	kg/TJ
2023	Cu	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.045948169	kg/TJ
2023	Cu	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000221595	kg/TJ
2023	Cu	1A2gviii	BARK	0.017033445	kg/TJ
2023	Cu	1A2gviii	BIO PELLETS (NON-WOOD)	0.005000000	kg/TJ
2023	Cu	1A2gviii	BIOLOGICAL SLURRY	0.005000000	kg/TJ
2023	Cu	1A2gviii	CHIPS FROM ROUNDWOOD	0.001024309	kg/TJ
2023	Cu	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.051000000	kg/TJ
2023	Cu	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.051000000	kg/TJ
2023	Cu	1A2gviii	CUTTER CHIPS ETC.	0.005670480	kg/TJ
2023	Cu	1A2gviii	DEMOLITION WOOD	0.000304546	kg/TJ
2023	Cu	1A2gviii	FOREST RESIDUE CHIPS	0.051000000	kg/TJ
2023	Cu	1A2gviii	FOREST RESIDUE CHIPS	0.012277066	kg/TJ
2023	Cu	1A2gviii	HAZARDOUS WASTE	0.000312925	kg/TJ
2023	Cu	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.002500000	kg/TJ
2023	Cu	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.002500000	kg/TJ
2023	Cu	1A2gviii	HEAVY FUEL OIL (S<1%)	0.002005882	kg/TJ
2023	Cu	1A2gviii	IMPREGNATED WOOD	0.000320049	kg/TJ
2023	Cu	1A2gviii	MILLED PEAT	0.000693853	kg/TJ
2023	Cu	1A2gviii	MUNICIPAL WASTE - unsorted	0.000843754	kg/TJ
2023	Cu	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.004775300	kg/TJ
2023	Cu	1A2gviii	OTHER HEAVY DISTILLATES	0.001593875	kg/TJ
2023	Cu	1A2gviii	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2023	Cu	1A2gviii	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2023	Cu	1A2gviii	OTHER WASTE	0.000228207	kg/TJ
2023	Cu	1A2gviii	OTHER WOOD RESIDUE	0.031234965	kg/TJ
2023	Cu	1A2gviii	PLASTIC WASTE	0.000306085	kg/TJ
2023	Cu	1A2gviii	RECOVERED WOOD	0.009325725	kg/TJ
2023	Cu	1A2gviii	RECYCLED AND WASTE OILS	0.000169170	kg/TJ
2023	Cu	1A2gviii	SAWDUST	0.002048865	kg/TJ
2023	Cu	1A2gviii	SAWDUST AND CUTTER CHIPS	0.051000000	kg/TJ
2023	Cu	1A2gviii	SOD PEAT	0.008947553	kg/TJ
2023	Cu	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.006583329	kg/TJ
2023	Cu	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.006420110	kg/TJ
2023	Cu	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.051000000	kg/TJ
2023	Cu	1A2gviii	WOOD RESIDUE CHIPS	0.030525838	kg/TJ
2023	Cu	1A2gviii	WOOD STUMP CHIPS	0.003949508	kg/TJ

2023	Cu	1A3bi	DIESEL OIL (S=001%)	0.000163539	kg/TJ
2023	Cu	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000121852	kg/TJ
2023	Cu	1A3bii	DIESEL OIL (S=001%)	0.000163539	kg/TJ
2023	Cu	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000121628	kg/TJ
2023	Cu	1A3biii	DIESEL OIL (S=001%)	0.000163539	kg/TJ
2023	Cu	1A3biv	DIESEL OIL (S=001%)	0.000158702	kg/TJ
2023	Cu	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000121628	kg/TJ
2023	Cu	1A3c	GASOIL (FOR NON-ROAD USE)	0.041082652	kg/TJ
2023	Cu	1A3dii	GASOIL (FOR NON-ROAD USE)	0.020691884	kg/TJ
2023	Cu	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.030784287	kg/TJ
2023	Cu	1A4ai	FOREST WOODFUEL	0.006000000	kg/TJ
2023	Cu	1A4ai	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2023	Cu	1A4ai	SOD PEAT	0.220000000	kg/TJ
2023	Cu	1A4aii	GASOIL (FOR NON-ROAD USE)	0.041082652	kg/TJ
2023	Cu	1A4aii	MOTOR GASOLINE (S=0.001%)	0.045948169	kg/TJ
2023	Cu	1A4bi	FOREST WOODFUEL	0.006000000	kg/TJ
2023	Cu	1A4bi	SOD PEAT	0.220000000	kg/TJ
2023	Cu	1A4bii	GASOIL (FOR NON-ROAD USE)	0.041082652	kg/TJ
2023	Cu	1A4bii	MOTOR GASOLINE (S=0.001%)	0.045948169	kg/TJ
2023	Cu	1A4ci	CHIPS FROM ROUNDWOOD	0.005000000	kg/TJ
2023	Cu	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.051000000	kg/TJ
2023	Cu	1A4ci	COAL (S=1.0%)	0.004000000	kg/TJ
2023	Cu	1A4ci	FOREST RESIDUE CHIPS	0.001000000	kg/TJ
2023	Cu	1A4ci	FOREST WOODFUEL	0.006000000	kg/TJ
2023	Cu	1A4ci	HEAVY FUEL OIL (S<1%)	0.002500000	kg/TJ
2023	Cu	1A4ci	OTHER NON-FOSSIL SOLID	0.005000000	kg/TJ
2023	Cu	1A4ci	RECOVERED WOOD	0.005000000	kg/TJ
2023	Cu	1A4ci	SOD PEAT	0.220000000	kg/TJ
2023	Cu	1A4cii	GASOIL (FOR NON-ROAD USE)	0.041082652	kg/TJ
2023	Cu	1A4cii	MOTOR GASOLINE (S=0.001%)	0.045948169	kg/TJ
2023	Cu	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.021266314	kg/TJ
2023	Cu	1A5a	FOREST WOODFUEL	0.051000000	kg/TJ
2023	Cu	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.002552099	kg/TJ
2023	Cu	1A5a	OTHER PETROLEUM PRODUCTS	0.002500000	kg/TJ

Ni Implied emission factors in Finnish air pollutant inventory for 2023

2023	Ni	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.001913145	kg/TJ
2023	Ni	1A1a	ANIMAL-BASED FUELS	0.002000000	kg/TJ
2023	Ni	1A1a	ANTHRACITE	0.000884886	kg/TJ
2023	Ni	1A1a	ASPHALTENE	0.047985318	kg/TJ
2023	Ni	1A1a	BARK	0.002083918	kg/TJ
2023	Ni	1A1a	BIO PELLETS (NON-WOOD)	0.002000000	kg/TJ
2023	Ni	1A1a	BIOLOGICAL SLURRY	0.002000000	kg/TJ
2023	Ni	1A1a	CHIPS FROM ROUNDWOOD	0.001462579	kg/TJ
2023	Ni	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000077125	kg/TJ
2023	Ni	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.009120500	kg/TJ
2023	Ni	1A1a	COAL (S=1.0%)	0.006336996	kg/TJ
2023	Ni	1A1a	CUTTER CHIPS ETC.	0.002208742	kg/TJ
2023	Ni	1A1a	DEINKING WASTE	0.014997384	kg/TJ
2023	Ni	1A1a	DEMOLITION WOOD	0.000893325	kg/TJ
2023	Ni	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.002000000	kg/TJ
2023	Ni	1A1a	FOREST RESIDUE CHIPS	0.023374876	kg/TJ
2023	Ni	1A1a	FOREST RESIDUE CHIPS	0.006054640	kg/TJ
2023	Ni	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.023874084	kg/TJ
2023	Ni	1A1a	HEAVY FUEL OIL (S<0,1%)	0.243300940	kg/TJ

2023	Ni	1A1a	HEAVY FUEL OIL (S<0,5%)	0.180129678	kg/TJ
2023	Ni	1A1a	HEAVY FUEL OIL (S<1%)	0.064868989	kg/TJ
2023	Ni	1A1a	IMPREGNATED WOOD	0.001421427	kg/TJ
2023	Ni	1A1a	INDUSTRIAL WASTE	0.006581870	kg/TJ
2023	Ni	1A1a	LIGNIN	0.002000000	kg/TJ
2023	Ni	1A1a	MILLED PEAT	0.006992539	kg/TJ
2023	Ni	1A1a	MUNICIPAL WASTE - unsorted	0.005557051	kg/TJ
2023	Ni	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001762879	kg/TJ
2023	Ni	1A1a	OTHER FOSSIL SOLID	0.000323150	kg/TJ
2023	Ni	1A1a	OTHER FUEL	0.002000000	kg/TJ
2023	Ni	1A1a	OTHER NON-FOSSIL SOLID	0.006940319	kg/TJ
2023	Ni	1A1a	OTHER NON-FOSSIL SOLID	0.001971112	kg/TJ
2023	Ni	1A1a	OTHER WASTE	0.000988714	kg/TJ
2023	Ni	1A1a	OTHER WOOD RESIDUE	0.022988535	kg/TJ
2023	Ni	1A1a	PAPER	0.002000000	kg/TJ
2023	Ni	1A1a	RECOVERED FUEL (REF 2)	0.030000000	kg/TJ
2023	Ni	1A1a	RECOVERED WOOD	0.009534747	kg/TJ
2023	Ni	1A1a	RECYCLED AND WASTE OILS	0.004000000	kg/TJ
2023	Ni	1A1a	SAWDUST	0.003233237	kg/TJ
2023	Ni	1A1a	SOD PEAT	0.139618656	kg/TJ
2023	Ni	1A1a	SOLID RECOVERED FUEL (SRF)	0.018894276	kg/TJ
2023	Ni	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003303468	kg/TJ
2023	Ni	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.008526856	kg/TJ
2023	Ni	1A1a	WOOD RESIDUE CHIPS	0.012098221	kg/TJ
2023	Ni	1A1a	WOOD STUMP CHIPS	0.022319764	kg/TJ
2023	Ni	1A1b	COKE (S=1.0%)	0.800000000	kg/TJ
2023	Ni	1A1b	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2023	Ni	1A1b	PETROLEUM COKE	0.000523423	kg/TJ
2023	Ni	1A2a	WOOD RESIDUE CHIPS	0.030000000	kg/TJ
2023	Ni	1A2b	COAL (S=1.0%)	0.800000000	kg/TJ
2023	Ni	1A2b	HEAVY FUEL OIL (S<1%)	0.170834545	kg/TJ
2023	Ni	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.300000000	kg/TJ
2023	Ni	1A2c	HEAVY FUEL OIL (S<0,1%)	0.278823529	kg/TJ
2023	Ni	1A2c	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2023	Ni	1A2c	OTHER FOSSIL LIQUID	0.300000000	kg/TJ
2023	Ni	1A2c	OTHER FUEL	0.002000000	kg/TJ
2023	Ni	1A2c	OTHER NON-FOSSIL SOLID	0.570236439	kg/TJ
2023	Ni	1A2c	OTHER WASTE	0.002000000	kg/TJ
2023	Ni	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.030000000	kg/TJ
2023	Ni	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.002941040	kg/TJ
2023	Ni	1A2d	BARK	0.005167323	kg/TJ
2023	Ni	1A2d	BIOLOGICAL SLURRY	0.022385352	kg/TJ
2023	Ni	1A2d	CHIPS FROM ROUNDWOOD	0.014274056	kg/TJ
2023	Ni	1A2d	COAL (S=1.0%)	0.002163904	kg/TJ
2023	Ni	1A2d	CUTTER CHIPS ETC.	0.001088168	kg/TJ
2023	Ni	1A2d	FOREST RESIDUE CHIPS	0.010075282	kg/TJ
2023	Ni	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000277021	kg/TJ
2023	Ni	1A2d	HEAVY FUEL OIL (S<0,1%)	0.087730945	kg/TJ
2023	Ni	1A2d	HEAVY FUEL OIL (S<0,5%)	0.300000000	kg/TJ
2023	Ni	1A2d	HEAVY FUEL OIL (S<1%)	0.026836559	kg/TJ
2023	Ni	1A2d	INDUSTRIAL WASTE	0.002857590	kg/TJ
2023	Ni	1A2d	METHANOL	0.000003734	kg/TJ
2023	Ni	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001810049	kg/TJ
2023	Ni	1A2d	OTHER WOOD RESIDUE	0.007263903	kg/TJ
2023	Ni	1A2d	PAPER	0.012070695	kg/TJ
2023	Ni	1A2d	RECOVERED WOOD	0.003845563	kg/TJ

2023	Ni	1A2d	RECYCLED AND WASTE OILS	0.001000000	kg/TJ
2023	Ni	1A2d	SAWDUST	0.004410800	kg/TJ
2023	Ni	1A2d	SOLID RECOVERED FUEL (SRF)	0.010358058	kg/TJ
2023	Ni	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.002620893	kg/TJ
2023	Ni	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	1.195269962	kg/TJ
2023	Ni	1A2d	WOOD RESIDUE CHIPS	0.009512430	kg/TJ
2023	Ni	1A2e	ANIMAL FATS AND OILS	0.002000000	kg/TJ
2023	Ni	1A2e	ANIMAL-BASED FUELS	0.030000000	kg/TJ
2023	Ni	1A2e	BIO-FUEL OIL	0.147528321	kg/TJ
2023	Ni	1A2e	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2023	Ni	1A2e	COAL (S=1.0%)	0.004018485	kg/TJ
2023	Ni	1A2e	COKE (S=1.0%)	0.800000000	kg/TJ
2023	Ni	1A2e	FOREST RESIDUE CHIPS	0.030000000	kg/TJ
2023	Ni	1A2e	HEAVY FUEL OIL (S<1%)	0.300055207	kg/TJ
2023	Ni	1A2e	MILLED PEAT	0.057582813	kg/TJ
2023	Ni	1A2e	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Ni	1A2e	OTHER NON-FOSSIL SOLID	0.001944756	kg/TJ
2023	Ni	1A2e	PEAT PELLETS AND BRIQUETTES	0.000400000	kg/TJ
2023	Ni	1A2e	RECOVERED WOOD	0.002000000	kg/TJ
2023	Ni	1A2e	SAWDUST	0.002000000	kg/TJ
2023	Ni	1A2e	SOD PEAT	0.140000000	kg/TJ
2023	Ni	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.029058718	kg/TJ
2023	Ni	1A2e	WOOD STUMP CHIPS	0.030000000	kg/TJ
2023	Ni	1A2f	CHIPS FROM ROUNDWOOD	0.030000000	kg/TJ
2023	Ni	1A2f	COAL (S=1.0%)	0.463213271	kg/TJ
2023	Ni	1A2f	COKE (S=1.0%)	0.800000000	kg/TJ
2023	Ni	1A2f	FOREST RESIDUE CHIPS	0.030000000	kg/TJ
2023	Ni	1A2f	HEAVY FUEL OIL (S<0,1%)	0.300000000	kg/TJ
2023	Ni	1A2f	HEAVY FUEL OIL (S<1%)	0.250448561	kg/TJ
2023	Ni	1A2f	INDUSTRIAL WASTE	0.004178614	kg/TJ
2023	Ni	1A2f	OTHER FOSSIL LIQUID	0.000208849	kg/TJ
2023	Ni	1A2f	OTHER FUEL	0.002000000	kg/TJ
2023	Ni	1A2f	OTHER NON-FOSSIL SOLID	0.000016319	kg/TJ
2023	Ni	1A2f	OTHER WASTE	0.000278574	kg/TJ
2023	Ni	1A2f	PETROLEUM COKE	0.000557094	kg/TJ
2023	Ni	1A2f	RECYCLED AND WASTE OILS	0.002909639	kg/TJ
2023	Ni	1A2f	REED CANARY GRASS	0.000278574	kg/TJ
2023	Ni	1A2f	RUBBER WASTE	0.000277460	kg/TJ
2023	Ni	1A2f	SAWDUST	0.000016319	kg/TJ
2023	Ni	1A2f	SOLID RECOVERED FUEL (SRF)	0.001409575	kg/TJ
2023	Ni	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000244785	kg/TJ
2023	Ni	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.001691639	kg/TJ
2023	Ni	1A2gvii	LIQUID GAS	0.001521739	kg/TJ
2023	Ni	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.001891983	kg/TJ
2023	Ni	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000508695	kg/TJ
2023	Ni	1A2gviii	BARK	0.009693921	kg/TJ
2023	Ni	1A2gviii	BIO PELLETS (NON-WOOD)	0.002000000	kg/TJ
2023	Ni	1A2gviii	BIOLOGICAL SLURRY	0.002000000	kg/TJ
2023	Ni	1A2gviii	CHIPS FROM ROUNDWOOD	0.000869328	kg/TJ
2023	Ni	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.030000000	kg/TJ
2023	Ni	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.030000000	kg/TJ
2023	Ni	1A2gviii	CUTTER CHIPS ETC.	0.002679170	kg/TJ
2023	Ni	1A2gviii	DEMOLITION WOOD	0.000531394	kg/TJ
2023	Ni	1A2gviii	FOREST RESIDUE CHIPS	0.030000000	kg/TJ
2023	Ni	1A2gviii	FOREST RESIDUE CHIPS	0.010858433	kg/TJ
2023	Ni	1A2gviii	HAZARDOUS WASTE	0.000228603	kg/TJ

2023	Ni	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.300000000	kg/TJ
2023	Ni	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.300000000	kg/TJ
2023	Ni	1A2gviii	HEAVY FUEL OIL (S<1%)	0.240508994	kg/TJ
2023	Ni	1A2gviii	IMPREGNATED WOOD	0.000263958	kg/TJ
2023	Ni	1A2gviii	MILLED PEAT	0.000019222	kg/TJ
2023	Ni	1A2gviii	MUNICIPAL WASTE - unsorted	0.000156869	kg/TJ
2023	Ni	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.001929873	kg/TJ
2023	Ni	1A2gviii	OTHER HEAVY DISTILLATES	0.125284562	kg/TJ
2023	Ni	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Ni	1A2gviii	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Ni	1A2gviii	OTHER WASTE	0.000349714	kg/TJ
2023	Ni	1A2gviii	OTHER WOOD RESIDUE	0.017969109	kg/TJ
2023	Ni	1A2gviii	PLASTIC WASTE	0.000276997	kg/TJ
2023	Ni	1A2gviii	RECOVERED WOOD	0.005417560	kg/TJ
2023	Ni	1A2gviii	RECYCLED AND WASTE OILS	0.000119710	kg/TJ
2023	Ni	1A2gviii	SAWDUST	0.001078972	kg/TJ
2023	Ni	1A2gviii	SAWDUST AND CUTTER CHIPS	0.030000000	kg/TJ
2023	Ni	1A2gviii	SOD PEAT	0.005049295	kg/TJ
2023	Ni	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.009614529	kg/TJ
2023	Ni	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003146268	kg/TJ
2023	Ni	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.030000000	kg/TJ
2023	Ni	1A2gviii	WOOD RESIDUE CHIPS	0.017901995	kg/TJ
2023	Ni	1A2gviii	WOOD STUMP CHIPS	0.008405710	kg/TJ
2023	Ni	1A3bi	DIESEL OIL (S=001%)	0.000005738	kg/TJ
2023	Ni	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000062280	kg/TJ
2023	Ni	1A3bii	DIESEL OIL (S=001%)	0.000005738	kg/TJ
2023	Ni	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000062165	kg/TJ
2023	Ni	1A3biii	DIESEL OIL (S=001%)	0.000005738	kg/TJ
2023	Ni	1A3biv	DIESEL OIL (S=001%)	0.000005568	kg/TJ
2023	Ni	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000062165	kg/TJ
2023	Ni	1A3c	GASOIL (FOR NON-ROAD USE)	0.001691639	kg/TJ
2023	Ni	1A3dii	GASOIL (FOR NON-ROAD USE)	0.023513505	kg/TJ
2023	Ni	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.788077741	kg/TJ
2023	Ni	1A4ai	FOREST WOODFUEL	0.030000000	kg/TJ
2023	Ni	1A4ai	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2023	Ni	1A4ai	SOD PEAT	0.140000000	kg/TJ
2023	Ni	1A4aii	GASOIL (FOR NON-ROAD USE)	0.001691639	kg/TJ
2023	Ni	1A4aii	MOTOR GASOLINE (S=0.001%)	0.001891983	kg/TJ
2023	Ni	1A4bi	FOREST WOODFUEL	0.030000000	kg/TJ
2023	Ni	1A4bi	SOD PEAT	0.140000000	kg/TJ
2023	Ni	1A4bii	GASOIL (FOR NON-ROAD USE)	0.001691639	kg/TJ
2023	Ni	1A4bii	MOTOR GASOLINE (S=0.001%)	0.001891983	kg/TJ
2023	Ni	1A4ci	CHIPS FROM ROUNDWOOD	0.002000000	kg/TJ
2023	Ni	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.030000000	kg/TJ
2023	Ni	1A4ci	COAL (S=1.0%)	0.004000000	kg/TJ
2023	Ni	1A4ci	FOREST RESIDUE CHIPS	0.030000000	kg/TJ
2023	Ni	1A4ci	FOREST WOODFUEL	0.030000000	kg/TJ
2023	Ni	1A4ci	HEAVY FUEL OIL (S<1%)	0.300000000	kg/TJ
2023	Ni	1A4ci	OTHER NON-FOSSIL SOLID	0.002000000	kg/TJ
2023	Ni	1A4ci	RECOVERED WOOD	0.002000000	kg/TJ
2023	Ni	1A4ci	SOD PEAT	0.140000000	kg/TJ
2023	Ni	1A4cii	GASOIL (FOR NON-ROAD USE)	0.001691639	kg/TJ
2023	Ni	1A4cii	MOTOR GASOLINE (S=0.001%)	0.001891983	kg/TJ
2023	Ni	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.024166266	kg/TJ
2023	Ni	1A5a	FOREST WOODFUEL	0.030000000	kg/TJ
2023	Ni	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.002330897	kg/TJ

2023	Ni	1A5a	OTHER PETROLEUM PRODUCTS	0.300000000	kg/TJ
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Zn Implied emission factors in Finnish air pollutant inventory for 2023

2023	Zn	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.050992942	kg/TJ
2023	Zn	1A1a	ANIMAL-BASED FUELS	0.054000000	kg/TJ
2023	Zn	1A1a	ANTHRACITE	0.010264678	kg/TJ
2023	Zn	1A1a	ASPHALTENE	0.001918067	kg/TJ
2023	Zn	1A1a	BARK	0.050259732	kg/TJ
2023	Zn	1A1a	BIO PELLETS (NON-WOOD)	0.054000000	kg/TJ
2023	Zn	1A1a	BIOLOGICAL SLURRY	0.054000000	kg/TJ
2023	Zn	1A1a	CHIPS FROM ROUNDWOOD	0.035582682	kg/TJ
2023	Zn	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.010969136	kg/TJ
2023	Zn	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.428522808	kg/TJ
2023	Zn	1A1a	COAL (S=1.0%)	0.019330017	kg/TJ
2023	Zn	1A1a	CUTTER CHIPS ETC.	0.041106932	kg/TJ
2023	Zn	1A1a	DEINKING WASTE	0.353868226	kg/TJ
2023	Zn	1A1a	DEMOLITION WOOD	0.054000000	kg/TJ
2023	Zn	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.054000000	kg/TJ
2023	Zn	1A1a	FOREST RESIDUE CHIPS	0.082111775	kg/TJ
2023	Zn	1A1a	FOREST RESIDUE CHIPS	0.545553132	kg/TJ
2023	Zn	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000503928	kg/TJ
2023	Zn	1A1a	HEAVY FUEL OIL (S<0,1%)	0.009945900	kg/TJ
2023	Zn	1A1a	HEAVY FUEL OIL (S<0,5%)	0.011200646	kg/TJ
2023	Zn	1A1a	HEAVY FUEL OIL (S<1%)	0.003734943	kg/TJ
2023	Zn	1A1a	IMPREGNATED WOOD	0.045236808	kg/TJ
2023	Zn	1A1a	INDUSTRIAL WASTE	0.097061310	kg/TJ
2023	Zn	1A1a	LIGNIN	0.054000000	kg/TJ
2023	Zn	1A1a	MILLED PEAT	0.021642122	kg/TJ
2023	Zn	1A1a	MUNICIPAL WASTE - unsorted	0.135167512	kg/TJ
2023	Zn	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.045554705	kg/TJ
2023	Zn	1A1a	OTHER FOSSIL SOLID	0.084000000	kg/TJ
2023	Zn	1A1a	OTHER FUEL	0.054000000	kg/TJ
2023	Zn	1A1a	OTHER NON-FOSSIL SOLID	0.057142490	kg/TJ
2023	Zn	1A1a	OTHER NON-FOSSIL SOLID	0.053294346	kg/TJ
2023	Zn	1A1a	OTHER WASTE	0.051928787	kg/TJ
2023	Zn	1A1a	OTHER WOOD RESIDUE	0.520612085	kg/TJ
2023	Zn	1A1a	PAPER	0.054000000	kg/TJ
2023	Zn	1A1a	PEAT PELLETS AND BRIQUETTES	0.008000000	kg/TJ
2023	Zn	1A1a	PLASTIC WASTE	0.007714290	kg/TJ
2023	Zn	1A1a	RECOVERED FUEL (REF 2)	0.700000000	kg/TJ
2023	Zn	1A1a	RECOVERED WOOD	0.208369776	kg/TJ
2023	Zn	1A1a	RECYCLED AND WASTE OILS	0.006000000	kg/TJ
2023	Zn	1A1a	SAWDUST	0.063290180	kg/TJ
2023	Zn	1A1a	SOD PEAT	0.325936075	kg/TJ
2023	Zn	1A1a	SOLID RECOVERED FUEL (SRF)	0.541240107	kg/TJ
2023	Zn	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.122882259	kg/TJ
2023	Zn	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.126083763	kg/TJ
2023	Zn	1A1a	WOOD RESIDUE CHIPS	0.396847390	kg/TJ
2023	Zn	1A1a	WOOD STUMP CHIPS	0.238663090	kg/TJ
2023	Zn	1A1b	COKE (S=1.0%)	1.500000000	kg/TJ
2023	Zn	1A1b	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2023	Zn	1A1b	PETROLEUM COKE	1.500000000	kg/TJ
2023	Zn	1A1b	SULPHUR CONCENTRATE	0.007714290	kg/TJ
2023	Zn	1A2a	WOOD RESIDUE CHIPS	0.700000000	kg/TJ
2023	Zn	1A2b	HEAVY FUEL OIL (S<1%)	0.002152498	kg/TJ

2023	Zn	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.012000000	kg/TJ
2023	Zn	1A2c	HEAVY FUEL OIL (S<0,1%)	0.011152941	kg/TJ
2023	Zn	1A2c	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2023	Zn	1A2c	OTHER FOSSIL LIQUID	0.012000000	kg/TJ
2023	Zn	1A2c	OTHER FUEL	0.054000000	kg/TJ
2023	Zn	1A2c	OTHER NON-FOSSIL SOLID	0.185442745	kg/TJ
2023	Zn	1A2c	OTHER WASTE	0.054000000	kg/TJ
2023	Zn	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.700000000	kg/TJ
2023	Zn	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.044622094	kg/TJ
2023	Zn	1A2d	ANIMAL-BASED FUELS	0.007714290	kg/TJ
2023	Zn	1A2d	BARK	0.030989804	kg/TJ
2023	Zn	1A2d	BIOLOGICAL SLURRY	0.025025644	kg/TJ
2023	Zn	1A2d	CHIPS FROM ROUNDWOOD	0.039745529	kg/TJ
2023	Zn	1A2d	COAL (S=1.0%)	0.012000000	kg/TJ
2023	Zn	1A2d	CUTTER CHIPS ETC.	0.003877052	kg/TJ
2023	Zn	1A2d	DEMOLITION WOOD	0.007714290	kg/TJ
2023	Zn	1A2d	FOREST RESIDUE CHIPS	0.025253175	kg/TJ
2023	Zn	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.007130038	kg/TJ
2023	Zn	1A2d	HEAVY FUEL OIL (S<0,1%)	0.003576743	kg/TJ
2023	Zn	1A2d	HEAVY FUEL OIL (S<0,5%)	0.012000000	kg/TJ
2023	Zn	1A2d	HEAVY FUEL OIL (S<1%)	0.028806635	kg/TJ
2023	Zn	1A2d	IMPREGNATED WOOD	0.007714290	kg/TJ
2023	Zn	1A2d	INDUSTRIAL WASTE	0.105221773	kg/TJ
2023	Zn	1A2d	METHANOL	0.000053686	kg/TJ
2023	Zn	1A2d	MILLED PEAT	0.002876428	kg/TJ
2023	Zn	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.048334608	kg/TJ
2023	Zn	1A2d	OTHER WOOD RESIDUE	0.257909234	kg/TJ
2023	Zn	1A2d	PAPER	0.054000000	kg/TJ
2023	Zn	1A2d	PLASTIC WASTE	0.007708315	kg/TJ
2023	Zn	1A2d	RECOVERED WOOD	0.016583020	kg/TJ
2023	Zn	1A2d	RECYCLED AND WASTE OILS	0.000857143	kg/TJ
2023	Zn	1A2d	SAWDUST	0.053229697	kg/TJ
2023	Zn	1A2d	SOLID RECOVERED FUEL (SRF)	0.189929476	kg/TJ
2023	Zn	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.010312162	kg/TJ
2023	Zn	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.175129943	kg/TJ
2023	Zn	1A2d	WOOD RESIDUE CHIPS	0.223092267	kg/TJ
2023	Zn	1A2d	WOOD STUMP CHIPS	0.007714290	kg/TJ
2023	Zn	1A2e	ANIMAL FATS AND OILS	0.054000000	kg/TJ
2023	Zn	1A2e	ANIMAL-BASED FUELS	0.700000000	kg/TJ
2023	Zn	1A2e	BIO-FUEL OIL	0.005901133	kg/TJ
2023	Zn	1A2e	CHIPS FROM ROUNDWOOD	0.054000000	kg/TJ
2023	Zn	1A2e	COAL (S=1.0%)	0.083986337	kg/TJ
2023	Zn	1A2e	COKE (S=1.0%)	1.500000000	kg/TJ
2023	Zn	1A2e	FOREST RESIDUE CHIPS	0.403429423	kg/TJ
2023	Zn	1A2e	HEAVY FUEL OIL (S<1%)	0.011996688	kg/TJ
2023	Zn	1A2e	MILLED PEAT	0.137540235	kg/TJ
2023	Zn	1A2e	OTHER NON-FOSSIL SOLID	0.054000000	kg/TJ
2023	Zn	1A2e	OTHER NON-FOSSIL SOLID	0.052508407	kg/TJ
2023	Zn	1A2e	PEAT PELLETS AND BRIQUETTES	0.004000000	kg/TJ
2023	Zn	1A2e	RECOVERED WOOD	0.054000000	kg/TJ
2023	Zn	1A2e	SAWDUST	0.054000000	kg/TJ
2023	Zn	1A2e	SOD PEAT	0.330000000	kg/TJ
2023	Zn	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.678036755	kg/TJ
2023	Zn	1A2e	WOOD STUMP CHIPS	0.700000000	kg/TJ
2023	Zn	1A2f	CHIPS FROM ROUNDWOOD	0.700000000	kg/TJ
2023	Zn	1A2f	COAL (S=1.0%)	1.142781638	kg/TJ

2023	Zn	1A2f	COKE (S=1.0%)	1.500000000	kg/TJ
2023	Zn	1A2f	FOREST RESIDUE CHIPS	0.700000000	kg/TJ
2023	Zn	1A2f	HEAVY FUEL OIL (S<0,1%)	0.012000000	kg/TJ
2023	Zn	1A2f	HEAVY FUEL OIL (S<1%)	0.010999324	kg/TJ
2023	Zn	1A2f	INDUSTRIAL WASTE	0.700000000	kg/TJ
2023	Zn	1A2f	OTHER FOSSIL LIQUID	0.012000000	kg/TJ
2023	Zn	1A2f	OTHER FUEL	0.054000000	kg/TJ
2023	Zn	1A2f	OTHER NON-FOSSIL SOLID	0.054000000	kg/TJ
2023	Zn	1A2f	OTHER WASTE	0.054000000	kg/TJ
2023	Zn	1A2f	PETROLEUM COKE	0.441955307	kg/TJ
2023	Zn	1A2f	PLASTIC WASTE	0.007714290	kg/TJ
2023	Zn	1A2f	RECYCLED AND WASTE OILS	0.006000000	kg/TJ
2023	Zn	1A2f	REED CANARY GRASS	0.054000000	kg/TJ
2023	Zn	1A2f	RUBBER WASTE	0.054000000	kg/TJ
2023	Zn	1A2f	SAWDUST	0.054000000	kg/TJ
2023	Zn	1A2f	SOLID RECOVERED FUEL (SRF)	0.700000000	kg/TJ
2023	Zn	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.700000000	kg/TJ
2023	Zn	1A2gvii	GASOIL (FOR NON-ROAD USE)	0.024166266	kg/TJ
2023	Zn	1A2gvii	LIQUID GAS	0.021739130	kg/TJ
2023	Zn	1A2gvii	MOTOR GASOLINE (S=0.001%)	0.027028335	kg/TJ
2023	Zn	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.054000000	kg/TJ
2023	Zn	1A2gviii	BARK	0.234487855	kg/TJ
2023	Zn	1A2gviii	BIO PELLETS (NON-WOOD)	0.054000000	kg/TJ
2023	Zn	1A2gviii	BIOLOGICAL SLURRY	0.054000000	kg/TJ
2023	Zn	1A2gviii	CHIPS FROM ROUNDWOOD	0.056012261	kg/TJ
2023	Zn	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.700000000	kg/TJ
2023	Zn	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.700000000	kg/TJ
2023	Zn	1A2gviii	CUTTER CHIPS ETC.	0.068423626	kg/TJ
2023	Zn	1A2gviii	DEMOLITION WOOD	0.054000000	kg/TJ
2023	Zn	1A2gviii	FOREST RESIDUE CHIPS	0.700000000	kg/TJ
2023	Zn	1A2gviii	FOREST RESIDUE CHIPS	0.539023982	kg/TJ
2023	Zn	1A2gviii	HAZARDOUS WASTE	0.371322746	kg/TJ
2023	Zn	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.012000000	kg/TJ
2023	Zn	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.012000000	kg/TJ
2023	Zn	1A2gviii	HEAVY FUEL OIL (S<1%)	0.011469729	kg/TJ
2023	Zn	1A2gviii	IMPREGNATED WOOD	0.054000000	kg/TJ
2023	Zn	1A2gviii	MILLED PEAT	0.008040432	kg/TJ
2023	Zn	1A2gviii	MUNICIPAL WASTE - unsorted	0.029363894	kg/TJ
2023	Zn	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.054000000	kg/TJ
2023	Zn	1A2gviii	OTHER HEAVY DISTILLATES	0.008261356	kg/TJ
2023	Zn	1A2gviii	OTHER NON-FOSSIL SOLID	0.054000000	kg/TJ
2023	Zn	1A2gviii	OTHER NON-FOSSIL SOLID	0.054000000	kg/TJ
2023	Zn	1A2gviii	OTHER WASTE	0.054000000	kg/TJ
2023	Zn	1A2gviii	OTHER WOOD RESIDUE	0.422430164	kg/TJ
2023	Zn	1A2gviii	PLASTIC WASTE	0.054000000	kg/TJ
2023	Zn	1A2gviii	RECOVERED WOOD	0.151893021	kg/TJ
2023	Zn	1A2gviii	RECYCLED AND WASTE OILS	0.006000000	kg/TJ
2023	Zn	1A2gviii	SAWDUST	0.054000000	kg/TJ
2023	Zn	1A2gviii	SAWDUST AND CUTTER CHIPS	0.700000000	kg/TJ
2023	Zn	1A2gviii	SOD PEAT	0.018670666	kg/TJ
2023	Zn	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.700000000	kg/TJ
2023	Zn	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.076511994	kg/TJ
2023	Zn	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.700000000	kg/TJ
2023	Zn	1A2gviii	WOOD RESIDUE CHIPS	0.439099578	kg/TJ
2023	Zn	1A2gviii	WOOD STUMP CHIPS	0.700000000	kg/TJ
2023	Zn	1A3bi	DIESEL OIL (S=001%)	0.000516440	kg/TJ

2023	Zn	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000893579	kg/TJ
2023	Zn	1A3bii	DIESEL OIL (S=001%)	0.000516440	kg/TJ
2023	Zn	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000891935	kg/TJ
2023	Zn	1A3biii	DIESEL OIL (S=001%)	0.000516440	kg/TJ
2023	Zn	1A3biv	DIESEL OIL (S=001%)	0.000501164	kg/TJ
2023	Zn	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000891935	kg/TJ
2023	Zn	1A3c	GASOIL (FOR NON-ROAD USE)	0.024166266	kg/TJ
2023	Zn	1A3dii	GASOIL (FOR NON-ROAD USE)	0.028216206	kg/TJ
2023	Zn	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.029552915	kg/TJ
2023	Zn	1A4ai	FOREST WOODFUEL	0.700000000	kg/TJ
2023	Zn	1A4ai	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2023	Zn	1A4ai	SOD PEAT	0.330000000	kg/TJ
2023	Zn	1A4aii	GASOIL (FOR NON-ROAD USE)	0.024166266	kg/TJ
2023	Zn	1A4aii	MOTOR GASOLINE (S=0.001%)	0.027028335	kg/TJ
2023	Zn	1A4bi	FOREST WOODFUEL	0.700000000	kg/TJ
2023	Zn	1A4bi	SOD PEAT	0.330000000	kg/TJ
2023	Zn	1A4bii	GASOIL (FOR NON-ROAD USE)	0.024166266	kg/TJ
2023	Zn	1A4bii	MOTOR GASOLINE (S=0.001%)	0.027028335	kg/TJ
2023	Zn	1A4ci	CHIPS FROM ROUNDWOOD	0.054000000	kg/TJ
2023	Zn	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.700000000	kg/TJ
2023	Zn	1A4ci	COAL (S=1.0%)	0.084000000	kg/TJ
2023	Zn	1A4ci	FOREST RESIDUE CHIPS	0.700000000	kg/TJ
2023	Zn	1A4ci	FOREST WOODFUEL	0.700000000	kg/TJ
2023	Zn	1A4ci	HEAVY FUEL OIL (S<1%)	0.012000000	kg/TJ
2023	Zn	1A4ci	OTHER NON-FOSSIL SOLID	0.054000000	kg/TJ
2023	Zn	1A4ci	RECOVERED WOOD	0.054000000	kg/TJ
2023	Zn	1A4ci	SOD PEAT	0.330000000	kg/TJ
2023	Zn	1A4cii	GASOIL (FOR NON-ROAD USE)	0.024166266	kg/TJ
2023	Zn	1A4cii	MOTOR GASOLINE (S=0.001%)	0.027028335	kg/TJ
2023	Zn	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.028999519	kg/TJ
2023	Zn	1A5a	FOREST WOODFUEL	0.700000000	kg/TJ
2023	Zn	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.003077126	kg/TJ
2023	Zn	1A5a	OTHER PETROLEUM PRODUCTS	0.012000000	kg/TJ

PCDD/F Implied emission factors in Finnish air pollutant inventory for 2023

2023	PCDD/F	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000011417	g/TJ
2023	PCDD/F	1A1a	ANIMAL-BASED FUELS	0.000000790	g/TJ
2023	PCDD/F	1A1a	ASPHALTENE	0.000000068	g/TJ
2023	PCDD/F	1A1a	BARK	0.000015757	g/TJ
2023	PCDD/F	1A1a	BIO PELLETS (NON-WOOD)	0.000041250	g/TJ
2023	PCDD/F	1A1a	BIO PYROLYSIS OIL	0.000000500	g/TJ
2023	PCDD/F	1A1a	BIO-FUEL OIL	0.000000500	g/TJ
2023	PCDD/F	1A1a	BIOLOGICAL SLURRY	0.000041250	g/TJ
2023	PCDD/F	1A1a	BLAST FURNACE GAS	0.000000500	g/TJ
2023	PCDD/F	1A1a	CHIPS FROM ROUNDWOOD	0.000014693	g/TJ
2023	PCDD/F	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000020740	g/TJ
2023	PCDD/F	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000013369	g/TJ
2023	PCDD/F	1A1a	COAL (S=1.0%)	0.000003855	g/TJ
2023	PCDD/F	1A1a	COKE OVEN GAS	0.000000500	g/TJ
2023	PCDD/F	1A1a	CUTTER CHIPS ETC.	0.000015453	g/TJ
2023	PCDD/F	1A1a	DEINKING WASTE	0.000041250	g/TJ
2023	PCDD/F	1A1a	DEMOLITION WOOD	0.000010053	g/TJ
2023	PCDD/F	1A1a	DIESEL OIL (S=001%)	0.000000500	g/TJ
2023	PCDD/F	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000021000	g/TJ
2023	PCDD/F	1A1a	FOREST RESIDUE CHIPS	0.000014739	g/TJ

2023	PCDD/F	1A1a	FOREST RESIDUE CHIPS	0.000016363	g/TJ
2023	PCDD/F	1A1a	GASOIL (FOR NON-ROAD USE)	0.000000484	g/TJ
2023	PCDD/F	1A1a	HEAVY FUEL OIL (normal, S>1%)	0.000000368	g/TJ
2023	PCDD/F	1A1a	HEAVY FUEL OIL (S<0,1%)	0.000000348	g/TJ
2023	PCDD/F	1A1a	HEAVY FUEL OIL (S<0,5%)	0.000000389	g/TJ
2023	PCDD/F	1A1a	HEAVY FUEL OIL (S<1%)	0.000000324	g/TJ
2023	PCDD/F	1A1a	HYDROGEN	0.000000500	g/TJ
2023	PCDD/F	1A1a	IMPREGNATED WOOD	0.000025677	g/TJ
2023	PCDD/F	1A1a	INDUSTRIAL WASTE	0.000007938	g/TJ
2023	PCDD/F	1A1a	LANDFILL GAS	0.000000500	g/TJ
2023	PCDD/F	1A1a	LIGHT FUEL OIL (S=0.0915%)	0.000150794	g/TJ
2023	PCDD/F	1A1a	LIGNIN	0.000021000	g/TJ
2023	PCDD/F	1A1a	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2023	PCDD/F	1A1a	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A1a	MILLED PEAT	0.000014060	g/TJ
2023	PCDD/F	1A1a	MOTOR GASOLINE (S=0.001%)	0.000000500	g/TJ
2023	PCDD/F	1A1a	MUNICIPAL WASTE - unsorted	0.000075632	g/TJ
2023	PCDD/F	1A1a	NAPHTHA	0.000000500	g/TJ
2023	PCDD/F	1A1a	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A1a	NATURAL GAS	0.000000485	g/TJ
2023	PCDD/F	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000017231	g/TJ
2023	PCDD/F	1A1a	OTHER FOSSIL GAS	0.000000012	g/TJ
2023	PCDD/F	1A1a	OTHER FOSSIL SOLID	0.000000004	g/TJ
2023	PCDD/F	1A1a	OTHER FUEL	0.000021000	g/TJ
2023	PCDD/F	1A1a	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A1a	OTHER NON-FOSSIL SOLID	0.000020988	g/TJ
2023	PCDD/F	1A1a	OTHER NON-FOSSIL SOLID	0.000020812	g/TJ
2023	PCDD/F	1A1a	OTHER WASTE	0.000018499	g/TJ
2023	PCDD/F	1A1a	OTHER WOOD RESIDUE	0.000020093	g/TJ
2023	PCDD/F	1A1a	PAPER	0.000013157	g/TJ
2023	PCDD/F	1A1a	PEAT PELLETS AND BRIQUETTES	0.000017500	g/TJ
2023	PCDD/F	1A1a	PLASTIC WASTE	0.000120712	g/TJ
2023	PCDD/F	1A1a	RECOVERED FUEL (REF 2)	0.000041250	g/TJ
2023	PCDD/F	1A1a	RECOVERED WOOD	0.000013780	g/TJ
2023	PCDD/F	1A1a	RECYCLED AND WASTE OILS	0.000000040	g/TJ
2023	PCDD/F	1A1a	RENEWABLE DIESEL	0.000000500	g/TJ
2023	PCDD/F	1A1a	SAWDUST	0.000018233	g/TJ
2023	PCDD/F	1A1a	SOD PEAT	0.000017418	g/TJ
2023	PCDD/F	1A1a	SOLID RECOVERED FUEL (SRF)	0.000018438	g/TJ
2023	PCDD/F	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000016410	g/TJ
2023	PCDD/F	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000026120	g/TJ
2023	PCDD/F	1A1a	WOOD RESIDUE CHIPS	0.000019156	g/TJ
2023	PCDD/F	1A1a	WOOD STUMP CHIPS	0.000012090	g/TJ
2023	PCDD/F	1A1b	COKE (S=1.0%)	0.000004000	g/TJ
2023	PCDD/F	1A1b	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2023	PCDD/F	1A1b	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2023	PCDD/F	1A1b	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A1b	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A1b	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A1b	OTHER FOSSIL LIQUID	0.000000400	g/TJ
2023	PCDD/F	1A1b	OTHER MEDIUM DISTILLATES	0.000000500	g/TJ
2023	PCDD/F	1A1b	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A1b	PETROLEUM COKE	0.000004000	g/TJ
2023	PCDD/F	1A1b	REFINERY GAS	0.000000500	g/TJ
2023	PCDD/F	1A1b	SULPHUR CONCENTRATE	0.000021000	g/TJ
2023	PCDD/F	1A2a	BLAST FURNACE GAS	0.000000182	g/TJ

2023	PCDD/F	1A2a	COKE OVEN GAS	0.000000241	g/TJ
2023	PCDD/F	1A2a	DIESEL OIL (S=001%)	0.000000500	g/TJ
2023	PCDD/F	1A2a	GASOIL (FOR NON-ROAD USE)	0.000000479	g/TJ
2023	PCDD/F	1A2a	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2023	PCDD/F	1A2a	LIQUID GAS	0.000000086	g/TJ
2023	PCDD/F	1A2a	NATURAL GAS	0.000000458	g/TJ
2023	PCDD/F	1A2a	WOOD RESIDUE CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A2b	COKE (S=1.0%)	0.000004000	g/TJ
2023	PCDD/F	1A2b	DIESEL OIL (S=001%)	0.000000500	g/TJ
2023	PCDD/F	1A2b	GASOIL (FOR NON-ROAD USE)	0.000000500	g/TJ
2023	PCDD/F	1A2b	HEAVY FUEL OIL (S<1%)	0.000000244	g/TJ
2023	PCDD/F	1A2b	LIGHT FUEL OIL (S=0.0915%)	0.000000448	g/TJ
2023	PCDD/F	1A2b	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2023	PCDD/F	1A2b	LIQUID GAS	0.000000460	g/TJ
2023	PCDD/F	1A2b	MOTOR GASOLINE (S=0.001%)	0.000000500	g/TJ
2023	PCDD/F	1A2b	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2b	OTHER HEAVY DISTILLATES	0.000000400	g/TJ
2023	PCDD/F	1A2c	AROMATIC GAS	0.000000500	g/TJ
2023	PCDD/F	1A2c	DIESEL OIL (S=001%)	0.000000500	g/TJ
2023	PCDD/F	1A2c	GASIFIED WASTE	0.000000500	g/TJ
2023	PCDD/F	1A2c	GASOIL (FOR NON-ROAD USE)	0.000000500	g/TJ
2023	PCDD/F	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.000000400	g/TJ
2023	PCDD/F	1A2c	HEAVY FUEL OIL (S<0,1%)	0.000000400	g/TJ
2023	PCDD/F	1A2c	HEAVY FUEL OIL (S<1%)	0.000000230	g/TJ
2023	PCDD/F	1A2c	HYDROGEN	0.000000500	g/TJ
2023	PCDD/F	1A2c	LIGHT FUEL OIL (S=0.0915%)	0.000000492	g/TJ
2023	PCDD/F	1A2c	LIQUEFIED NATURAL GAS (LNG)	0.000000350	g/TJ
2023	PCDD/F	1A2c	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A2c	METHANOL	0.000000500	g/TJ
2023	PCDD/F	1A2c	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2c	OTHER FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2c	OTHER FOSSIL LIQUID	0.000000400	g/TJ
2023	PCDD/F	1A2c	OTHER FUEL	0.000021000	g/TJ
2023	PCDD/F	1A2c	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2023	PCDD/F	1A2c	OTHER WASTE	0.000041250	g/TJ
2023	PCDD/F	1A2c	REFINERY GASES	0.000000500	g/TJ
2023	PCDD/F	1A2c	RENEWABLE DIESEL	0.000000500	g/TJ
2023	PCDD/F	1A2c	TALL PITCH AND OIL	0.000000400	g/TJ
2023	PCDD/F	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2023	PCDD/F	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000056992	g/TJ
2023	PCDD/F	1A2d	ANIMAL-BASED FUELS	0.000029045	g/TJ
2023	PCDD/F	1A2d	AROMATIC GAS	0.000001994	g/TJ
2023	PCDD/F	1A2d	BARK	0.000035553	g/TJ
2023	PCDD/F	1A2d	BIO-FUEL OIL	0.000000500	g/TJ
2023	PCDD/F	1A2d	BIOGAS FROM WASTEWATER TREATMENT	0.000000500	g/TJ
2023	PCDD/F	1A2d	BIOLOGICAL SLURRY	0.000032455	g/TJ
2023	PCDD/F	1A2d	CHIPS FROM ROUNDWOOD	0.000077476	g/TJ
2023	PCDD/F	1A2d	COAL (S=1.0%)	0.000004030	g/TJ
2023	PCDD/F	1A2d	CUTTER CHIPS ETC.	0.000007605	g/TJ
2023	PCDD/F	1A2d	DEMOLITION WOOD	0.000057053	g/TJ
2023	PCDD/F	1A2d	FOREST RESIDUE CHIPS	0.000035121	g/TJ
2023	PCDD/F	1A2d	GASOIL (FOR NON-ROAD USE)	0.000000500	g/TJ
2023	PCDD/F	1A2d	HEAVY FUEL OIL (normal, S>1%)	0.000006129	g/TJ
2023	PCDD/F	1A2d	HEAVY FUEL OIL (S<0,1%)	0.000000246	g/TJ
2023	PCDD/F	1A2d	HEAVY FUEL OIL (S<0,5%)	0.000000400	g/TJ
2023	PCDD/F	1A2d	HEAVY FUEL OIL (S<1%)	0.000000606	g/TJ

2023	PCDD/F	1A2d	HYDROGEN	0.000000500	g/TJ
2023	PCDD/F	1A2d	IMPREGNATED WOOD	0.000057053	g/TJ
2023	PCDD/F	1A2d	INDUSTRIAL WASTE	0.000041250	g/TJ
2023	PCDD/F	1A2d	LIGHT FUEL OIL (S=0.0915%)	0.000000495	g/TJ
2023	PCDD/F	1A2d	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2023	PCDD/F	1A2d	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A2d	METHANOL	0.000009956	g/TJ
2023	PCDD/F	1A2d	MILLED PEAT	0.000020882	g/TJ
2023	PCDD/F	1A2d	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2d	NATURAL GAS	0.000001479	g/TJ
2023	PCDD/F	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000021000	g/TJ
2023	PCDD/F	1A2d	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2d	OTHER WOOD RESIDUE	0.000021000	g/TJ
2023	PCDD/F	1A2d	PAPER	0.000011493	g/TJ
2023	PCDD/F	1A2d	PLASTIC WASTE	0.000041250	g/TJ
2023	PCDD/F	1A2d	RECOVERED WOOD	0.000013965	g/TJ
2023	PCDD/F	1A2d	RECYCLED AND WASTE OILS	0.000000553	g/TJ
2023	PCDD/F	1A2d	SAWDUST	0.000026520	g/TJ
2023	PCDD/F	1A2d	SOLID RECOVERED FUEL (SRF)	0.000025314	g/TJ
2023	PCDD/F	1A2d	TALL PITCH AND OIL	0.000004723	g/TJ
2023	PCDD/F	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000005401	g/TJ
2023	PCDD/F	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2023	PCDD/F	1A2d	WOOD RESIDUE CHIPS	0.000093695	g/TJ
2023	PCDD/F	1A2d	WOOD STUMP CHIPS	0.000029045	g/TJ
2023	PCDD/F	1A2e	ANIMAL FATS AND OILS	0.000021000	g/TJ
2023	PCDD/F	1A2e	ANIMAL-BASED FUELS	0.000021000	g/TJ
2023	PCDD/F	1A2e	BIO-FUEL OIL	0.000000201	g/TJ
2023	PCDD/F	1A2e	BIOGAS FROM WASTEWATER TREATMENT	0.000000500	g/TJ
2023	PCDD/F	1A2e	CHIPS FROM ROUNDWOOD	0.000021000	g/TJ
2023	PCDD/F	1A2e	COAL (S=1.0%)	0.000004000	g/TJ
2023	PCDD/F	1A2e	COKE (S=1.0%)	0.000004000	g/TJ
2023	PCDD/F	1A2e	FOREST RESIDUE CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A2e	GASOIL (FOR NON-ROAD USE)	0.000000490	g/TJ
2023	PCDD/F	1A2e	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2023	PCDD/F	1A2e	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2023	PCDD/F	1A2e	LIQUEFIED NATURAL GAS (LNG)	0.000000500	g/TJ
2023	PCDD/F	1A2e	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A2e	MILLED PEAT	0.000012342	g/TJ
2023	PCDD/F	1A2e	MOTOR GASOLINE (S=0.001%)	0.000000500	g/TJ
2023	PCDD/F	1A2e	NAPHTHA	0.000000500	g/TJ
2023	PCDD/F	1A2e	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2e	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2e	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2e	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2023	PCDD/F	1A2e	OTHER NON-FOSSIL SOLID	0.000020420	g/TJ
2023	PCDD/F	1A2e	PEAT PELLETS AND BRIQUETTES	0.000008750	g/TJ
2023	PCDD/F	1A2e	RECOVERED WOOD	0.000021000	g/TJ
2023	PCDD/F	1A2e	SAWDUST	0.000021000	g/TJ
2023	PCDD/F	1A2e	SOD PEAT	0.000017500	g/TJ
2023	PCDD/F	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000020341	g/TJ
2023	PCDD/F	1A2e	WOOD STUMP CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A2f	CHIPS FROM ROUNDWOOD	0.000021000	g/TJ
2023	PCDD/F	1A2f	COAL (S=1.0%)	0.000002450	g/TJ
2023	PCDD/F	1A2f	COKE (S=1.0%)	0.000004000	g/TJ
2023	PCDD/F	1A2f	COKE OVEN GAS	0.000000500	g/TJ
2023	PCDD/F	1A2f	DIESEL OIL (S=001%)	0.000000500	g/TJ

2023	PCDD/F	1A2f	FOREST RESIDUE CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A2f	GASOIL (FOR NON-ROAD USE)	0.000000492	g/TJ
2023	PCDD/F	1A2f	HEAVY FUEL OIL (S<0,1%)	0.000000400	g/TJ
2023	PCDD/F	1A2f	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2023	PCDD/F	1A2f	INDUSTRIAL WASTE	0.000005539	g/TJ
2023	PCDD/F	1A2f	LIGHT FUEL OIL (S=0.0915%)	0.000000455	g/TJ
2023	PCDD/F	1A2f	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A2f	MOTOR GASOLINE (S=0.001%)	0.000000500	g/TJ
2023	PCDD/F	1A2f	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2f	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2f	OTHER FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2f	OTHER FUEL	0.000021000	g/TJ
2023	PCDD/F	1A2f	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2f	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2023	PCDD/F	1A2f	OTHER WASTE	0.000005539	g/TJ
2023	PCDD/F	1A2f	PETROLEUM COKE	0.000000401	g/TJ
2023	PCDD/F	1A2f	PLASTIC WASTE	0.000000954	g/TJ
2023	PCDD/F	1A2f	RECYCLED AND WASTE OILS	0.000000400	g/TJ
2023	PCDD/F	1A2f	REED CANARY GRASS	0.000002820	g/TJ
2023	PCDD/F	1A2f	RUBBER WASTE	0.000005516	g/TJ
2023	PCDD/F	1A2f	SAWDUST	0.000021000	g/TJ
2023	PCDD/F	1A2f	SOLID RECOVERED FUEL (SRF)	0.000001850	g/TJ
2023	PCDD/F	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2023	PCDD/F	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000003079	g/TJ
2023	PCDD/F	1A2gviii	BARK	0.000017077	g/TJ
2023	PCDD/F	1A2gviii	BIO PELLETS (NON-WOOD)	0.000041250	g/TJ
2023	PCDD/F	1A2gviii	BIOGAS FROM WASTEWATER TREATMENT	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	BIOLOGICAL SLURRY	0.000000480	g/TJ
2023	PCDD/F	1A2gviii	CHIPS FROM ROUNDWOOD	0.000005504	g/TJ
2023	PCDD/F	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.000000244	g/TJ
2023	PCDD/F	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000021000	g/TJ
2023	PCDD/F	1A2gviii	CUTTER CHIPS ETC.	0.000019596	g/TJ
2023	PCDD/F	1A2gviii	DEMOLITION WOOD	0.000006580	g/TJ
2023	PCDD/F	1A2gviii	DIESEL OIL (S=001%)	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	FOREST RESIDUE CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A2gviii	FOREST RESIDUE CHIPS	0.000009814	g/TJ
2023	PCDD/F	1A2gviii	GASOIL (FOR NON-ROAD USE)	0.000000465	g/TJ
2023	PCDD/F	1A2gviii	HAZARDOUS WASTE	0.000000142	g/TJ
2023	PCDD/F	1A2gviii	HEAVY FUEL OIL (S<0,1%)	0.000000400	g/TJ
2023	PCDD/F	1A2gviii	HEAVY FUEL OIL (S<0,5%)	0.000000400	g/TJ
2023	PCDD/F	1A2gviii	HEAVY FUEL OIL (S<1%)	0.000000321	g/TJ
2023	PCDD/F	1A2gviii	IMPREGNATED WOOD	0.000000244	g/TJ
2023	PCDD/F	1A2gviii	LANDFILL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	0.000000476	g/TJ
2023	PCDD/F	1A2gviii	LIQUEFIED NATURAL GAS (LNG)	0.000000488	g/TJ
2023	PCDD/F	1A2gviii	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	MILLED PEAT	0.000008512	g/TJ
2023	PCDD/F	1A2gviii	MUNICIPAL WASTE - unsorted	0.000007221	g/TJ
2023	PCDD/F	1A2gviii	NAPHTHA	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	NATURAL GAS	0.000000494	g/TJ
2023	PCDD/F	1A2gviii	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	0.000020157	g/TJ
2023	PCDD/F	1A2gviii	OTHER HEAVY DISTILLATES	0.000000400	g/TJ
2023	PCDD/F	1A2gviii	OTHER NON-FOSSIL GAS	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2023	PCDD/F	1A2gviii	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ

2023	PCDD/F	1A2gviii	OTHER WASTE	0.000000176	g/TJ
2023	PCDD/F	1A2gviii	OTHER WOOD RESIDUE	0.000012082	g/TJ
2023	PCDD/F	1A2gviii	PLASTIC WASTE	0.000000234	g/TJ
2023	PCDD/F	1A2gviii	RECOVERED WOOD	0.000009023	g/TJ
2023	PCDD/F	1A2gviii	RECYCLED AND WASTE OILS	0.000000093	g/TJ
2023	PCDD/F	1A2gviii	RENEWABLE DIESEL	0.000000500	g/TJ
2023	PCDD/F	1A2gviii	SAWDUST	0.000005103	g/TJ
2023	PCDD/F	1A2gviii	SAWDUST AND CUTTER CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A2gviii	SOD PEAT	0.000017500	g/TJ
2023	PCDD/F	1A2gviii	SOLID RECOVERED FUEL (SRF)	0.000009170	g/TJ
2023	PCDD/F	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000020634	g/TJ
2023	PCDD/F	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000021000	g/TJ
2023	PCDD/F	1A2gviii	WOOD RESIDUE CHIPS	0.000020161	g/TJ
2023	PCDD/F	1A2gviii	WOOD STUMP CHIPS	0.000003700	g/TJ
2023	PCDD/F	1A3bi	DIESEL OIL (S=001%)	0.000009493	g/TJ
2023	PCDD/F	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000004169	g/TJ
2023	PCDD/F	1A3bii	DIESEL OIL (S=001%)	0.000013660	g/TJ
2023	PCDD/F	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000004684	g/TJ
2023	PCDD/F	1A3biii	DIESEL OIL (S=001%)	0.000000837	g/TJ
2023	PCDD/F	1A3biv	DIESEL OIL (S=001%)	0.000047277	g/TJ
2023	PCDD/F	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000008756	g/TJ
2023	PCDD/F	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000003057	g/TJ
2023	PCDD/F	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000011575	g/TJ
2023	PCDD/F	1A3ei	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A4ai	BIO-FUEL OIL	0.000000500	g/TJ
2023	PCDD/F	1A4ai	FOREST WOODFUEL	0.000021000	g/TJ
2023	PCDD/F	1A4ai	GASOIL (FOR NON-ROAD USE)	0.000000500	g/TJ
2023	PCDD/F	1A4ai	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2023	PCDD/F	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2023	PCDD/F	1A4ai	NAPHTHA	0.000000500	g/TJ
2023	PCDD/F	1A4ai	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A4ai	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A4ai	SOD PEAT	0.000017500	g/TJ
2023	PCDD/F	1A4bi	FOREST WOODFUEL	0.000021000	g/TJ
2023	PCDD/F	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2023	PCDD/F	1A4bi	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A4bi	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A4bi	PARAFFIN	0.000000500	g/TJ
2023	PCDD/F	1A4bi	SOD PEAT	0.000017500	g/TJ
2023	PCDD/F	1A4ci	CHIPS FROM ROUNDWOOD	0.000021000	g/TJ
2023	PCDD/F	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	0.000021000	g/TJ
2023	PCDD/F	1A4ci	COAL (S=1.0%)	0.000004000	g/TJ
2023	PCDD/F	1A4ci	FOREST RESIDUE CHIPS	0.000021000	g/TJ
2023	PCDD/F	1A4ci	FOREST WOODFUEL	0.000021000	g/TJ
2023	PCDD/F	1A4ci	HEAVY FUEL OIL (S<1%)	0.000000400	g/TJ
2023	PCDD/F	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000000500	g/TJ
2023	PCDD/F	1A4ci	LIQUID GAS	0.000000500	g/TJ
2023	PCDD/F	1A4ci	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A4ci	OTHER NON-FOSSIL SOLID	0.000021000	g/TJ
2023	PCDD/F	1A4ci	RECOVERED WOOD	0.000021000	g/TJ
2023	PCDD/F	1A4ci	SOD PEAT	0.000017500	g/TJ
2023	PCDD/F	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000003142	g/TJ
2023	PCDD/F	1A5a	FOREST WOODFUEL	0.000021000	g/TJ
2023	PCDD/F	1A5a	LANDFILL GAS	0.000000500	g/TJ
2023	PCDD/F	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000000800	g/TJ
2023	PCDD/F	1A5a	LIQUID GAS	0.000000500	g/TJ

2023	PCDD/F	1A5a	NATURAL GAS	0.000000500	g/TJ
2023	PCDD/F	1A5a	OTHER PETROLEUM PRODUCTS	0.000000400	g/TJ

PAH-4 Implied emission factors in Finnish air pollutant inventory for 2023

2023	PAH-4	1A1a	0-FIBRE/BIOLOGICAL SLURRY	2.675064159	g/TJ
2023	PAH-4	1A1a	ANIMAL-BASED FUELS	2.700000000	g/TJ
2023	PAH-4	1A1a	ASPHALTENE	2.800000000	g/TJ
2023	PAH-4	1A1a	BARK	2.605482466	g/TJ
2023	PAH-4	1A1a	BIO PELLETS (NON-WOOD)	2.500000000	g/TJ
2023	PAH-4	1A1a	BIO PYROLYSIS OIL	2.800000000	g/TJ
2023	PAH-4	1A1a	BIO-FUEL OIL	2.800000000	g/TJ
2023	PAH-4	1A1a	BIOLOGICAL SLURRY	2.500000000	g/TJ
2023	PAH-4	1A1a	CHIPS FROM ROUNDWOOD	2.417014600	g/TJ
2023	PAH-4	1A1a	CHIPS FROM ROUNDWOOD, LARGE	2.746249413	g/TJ
2023	PAH-4	1A1a	CHIPS FROM ROUNDWOOD, SMALL	2.708427386	g/TJ
2023	PAH-4	1A1a	COAL (S=1.0%)	0.011187944	g/TJ
2023	PAH-4	1A1a	CUTTER CHIPS ETC.	2.125395986	g/TJ
2023	PAH-4	1A1a	DEINKING WASTE	2.500000000	g/TJ
2023	PAH-4	1A1a	DEMOLITION WOOD	2.533967430	g/TJ
2023	PAH-4	1A1a	DIESEL OIL (S=001%)	2.800000000	g/TJ
2023	PAH-4	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	2.700000000	g/TJ
2023	PAH-4	1A1a	FOREST RESIDUE CHIPS	2.495391959	g/TJ
2023	PAH-4	1A1a	FOREST RESIDUE CHIPS	2.474480982	g/TJ
2023	PAH-4	1A1a	GASOIL (FOR NON-ROAD USE)	2.314753596	g/TJ
2023	PAH-4	1A1a	HEAVY FUEL OIL (normal, S>1%)	2.800000000	g/TJ
2023	PAH-4	1A1a	HEAVY FUEL OIL (S<0,1%)	2.611396068	g/TJ
2023	PAH-4	1A1a	HEAVY FUEL OIL (S<0,5%)	2.762579309	g/TJ
2023	PAH-4	1A1a	HEAVY FUEL OIL (S<1%)	2.539252250	g/TJ
2023	PAH-4	1A1a	IMPREGNATED WOOD	1.761726387	g/TJ
2023	PAH-4	1A1a	INDUSTRIAL WASTE	0.653497227	g/TJ
2023	PAH-4	1A1a	LIGHT FUEL OIL (S=0.0915%)	2.857442185	g/TJ
2023	PAH-4	1A1a	LIGNIN	2.700000000	g/TJ
2023	PAH-4	1A1a	MILLED PEAT	0.931529128	g/TJ
2023	PAH-4	1A1a	MOTOR GASOLINE (S=0.001%)	2.800000000	g/TJ
2023	PAH-4	1A1a	MUNICIPAL WASTE - unsorted	19.771722798	g/TJ
2023	PAH-4	1A1a	NAPHTHA	2.800000000	g/TJ
2023	PAH-4	1A1a	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.520447225	g/TJ
2023	PAH-4	1A1a	OTHER FOSSIL SOLID	0.012270850	g/TJ
2023	PAH-4	1A1a	OTHER FUEL	2.700000000	g/TJ
2023	PAH-4	1A1a	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A1a	OTHER NON-FOSSIL SOLID	2.702090676	g/TJ
2023	PAH-4	1A1a	OTHER WASTE	2.352348717	g/TJ
2023	PAH-4	1A1a	OTHER WOOD RESIDUE	2.597853952	g/TJ
2023	PAH-4	1A1a	PAPER	2.700000000	g/TJ
2023	PAH-4	1A1a	PEAT PELLETS AND BRIQUETTES	1.000000000	g/TJ
2023	PAH-4	1A1a	PLASTIC WASTE	2.500000000	g/TJ
2023	PAH-4	1A1a	RECOVERED FUEL (REF 2)	2.500000000	g/TJ
2023	PAH-4	1A1a	RECOVERED WOOD	2.650765080	g/TJ
2023	PAH-4	1A1a	RECYCLED AND WASTE OILS	2.800000000	g/TJ
2023	PAH-4	1A1a	RENEWABLE DIESEL	2.800000000	g/TJ
2023	PAH-4	1A1a	SAWDUST	2.565016857	g/TJ
2023	PAH-4	1A1a	SOD PEAT	1.000000000	g/TJ
2023	PAH-4	1A1a	SOLID RECOVERED FUEL (SRF)	2.344206369	g/TJ
2023	PAH-4	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	2.571522260	g/TJ
2023	PAH-4	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	3.493179772	g/TJ

2023	PAH-4	1A1a	WOOD RESIDUE CHIPS	2.608572761	g/TJ
2023	PAH-4	1A1a	WOOD STUMP CHIPS	2.614434414	g/TJ
2023	PAH-4	1A1b	COKE (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A1b	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2023	PAH-4	1A1b	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A1b	OTHER FOSSIL LIQUID	2.800000000	g/TJ
2023	PAH-4	1A1b	OTHER MEDIUM DISTILLATES	2.800000000	g/TJ
2023	PAH-4	1A1b	PETROLEUM COKE	0.012000000	g/TJ
2023	PAH-4	1A2a	COKE (S=1.0%)	0.000522069	g/TJ
2023	PAH-4	1A2a	DIESEL OIL (S=001%)	2.800000000	g/TJ
2023	PAH-4	1A2a	GASOIL (FOR NON-ROAD USE)	2.681230344	g/TJ
2023	PAH-4	1A2a	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A2a	OTHER FOSSIL SOLID	0.012000000	g/TJ
2023	PAH-4	1A2a	WOOD RESIDUE CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2b	COAL (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2b	COKE (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2b	DIESEL OIL (S=001%)	2.800000000	g/TJ
2023	PAH-4	1A2b	GASOIL (FOR NON-ROAD USE)	2.800000000	g/TJ
2023	PAH-4	1A2b	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2023	PAH-4	1A2b	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A2b	MOTOR GASOLINE (S=0.001%)	2.800000000	g/TJ
2023	PAH-4	1A2b	OTHER HEAVY DISTILLATES	2.800000000	g/TJ
2023	PAH-4	1A2c	DIESEL OIL (S=001%)	2.800000000	g/TJ
2023	PAH-4	1A2c	GASOIL (FOR NON-ROAD USE)	2.800000000	g/TJ
2023	PAH-4	1A2c	HEAVY FUEL OIL (normal, S>1%)	0.398883127	g/TJ
2023	PAH-4	1A2c	HEAVY FUEL OIL (S<0,1%)	2.800000000	g/TJ
2023	PAH-4	1A2c	HEAVY FUEL OIL (S<1%)	2.737809702	g/TJ
2023	PAH-4	1A2c	LIGHT FUEL OIL (S=0.0915%)	2.282523975	g/TJ
2023	PAH-4	1A2c	METHANOL	2.800000000	g/TJ
2023	PAH-4	1A2c	OTHER FOSSIL LIQUID	2.800000000	g/TJ
2023	PAH-4	1A2c	OTHER FUEL	2.700000000	g/TJ
2023	PAH-4	1A2c	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A2c	OTHER WASTE	2.500000000	g/TJ
2023	PAH-4	1A2c	RENEWABLE DIESEL	2.800000000	g/TJ
2023	PAH-4	1A2c	TALL PITCH AND OIL	2.706079681	g/TJ
2023	PAH-4	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700000000	g/TJ
2023	PAH-4	1A2d	0-FIBRE/BIOLOGICAL SLURRY	2.672492976	g/TJ
2023	PAH-4	1A2d	ANIMAL-BASED FUELS	2.700000000	g/TJ
2023	PAH-4	1A2d	BARK	2.466749445	g/TJ
2023	PAH-4	1A2d	BIO-FUEL OIL	2.800000000	g/TJ
2023	PAH-4	1A2d	BIOLOGICAL SLURRY	2.500000000	g/TJ
2023	PAH-4	1A2d	CHIPS FROM ROUNDWOOD	2.700000000	g/TJ
2023	PAH-4	1A2d	COAL (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2d	CUTTER CHIPS ETC.	2.700000000	g/TJ
2023	PAH-4	1A2d	DEMOLITION WOOD	2.500000000	g/TJ
2023	PAH-4	1A2d	FOREST RESIDUE CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2d	GASOIL (FOR NON-ROAD USE)	2.800000000	g/TJ
2023	PAH-4	1A2d	HEAVY FUEL OIL (normal, S>1%)	6.053815065	g/TJ
2023	PAH-4	1A2d	HEAVY FUEL OIL (S<0,1%)	1.632907348	g/TJ
2023	PAH-4	1A2d	HEAVY FUEL OIL (S<0,5%)	2.800000000	g/TJ
2023	PAH-4	1A2d	HEAVY FUEL OIL (S<1%)	3.005466691	g/TJ
2023	PAH-4	1A2d	IMPREGNATED WOOD	2.500000000	g/TJ
2023	PAH-4	1A2d	INDUSTRIAL WASTE	2.500000000	g/TJ
2023	PAH-4	1A2d	LIGHT FUEL OIL (S=0.0915%)	2.991441113	g/TJ
2023	PAH-4	1A2d	METHANOL	12.658531089	g/TJ
2023	PAH-4	1A2d	MILLED PEAT	0.969627372	g/TJ

2023	PAH-4	1A2d	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.700000000	g/TJ
2023	PAH-4	1A2d	OTHER WOOD RESIDUE	2.700000000	g/TJ
2023	PAH-4	1A2d	PAPER	2.700000000	g/TJ
2023	PAH-4	1A2d	PLASTIC WASTE	2.500000000	g/TJ
2023	PAH-4	1A2d	RECOVERED WOOD	2.700000000	g/TJ
2023	PAH-4	1A2d	RECYCLED AND WASTE OILS	2.800000000	g/TJ
2023	PAH-4	1A2d	SAWDUST	2.700000000	g/TJ
2023	PAH-4	1A2d	SOLID RECOVERED FUEL (SRF)	2.500000000	g/TJ
2023	PAH-4	1A2d	TALL PITCH AND OIL	2.585068538	g/TJ
2023	PAH-4	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	14.535746252	g/TJ
2023	PAH-4	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700000000	g/TJ
2023	PAH-4	1A2d	WOOD RESIDUE CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2d	WOOD STUMP CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2e	ANIMAL FATS AND OILS	2.700000000	g/TJ
2023	PAH-4	1A2e	ANIMAL-BASED FUELS	2.700000000	g/TJ
2023	PAH-4	1A2e	BIO-FUEL OIL	1.400000000	g/TJ
2023	PAH-4	1A2e	CHIPS FROM ROUNDWOOD	2.700000000	g/TJ
2023	PAH-4	1A2e	COAL (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2e	COKE (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2e	FOREST RESIDUE CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2e	GASOIL (FOR NON-ROAD USE)	2.743653177	g/TJ
2023	PAH-4	1A2e	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2023	PAH-4	1A2e	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A2e	MILLED PEAT	0.705260606	g/TJ
2023	PAH-4	1A2e	MOTOR GASOLINE (S=0.001%)	2.800000000	g/TJ
2023	PAH-4	1A2e	NAPHTHA	2.800000000	g/TJ
2023	PAH-4	1A2e	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A2e	OTHER NON-FOSSIL SOLID	2.625420336	g/TJ
2023	PAH-4	1A2e	PEAT PELLETS AND BRIQUETTES	0.500000000	g/TJ
2023	PAH-4	1A2e	RECOVERED WOOD	2.700000000	g/TJ
2023	PAH-4	1A2e	SAWDUST	2.700000000	g/TJ
2023	PAH-4	1A2e	SOD PEAT	1.000000000	g/TJ
2023	PAH-4	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.615284626	g/TJ
2023	PAH-4	1A2e	WOOD STUMP CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2f	CHIPS FROM ROUNDWOOD	2.700000000	g/TJ
2023	PAH-4	1A2f	COAL (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2f	COKE (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A2f	DIESEL OIL (S=001%)	2.800000000	g/TJ
2023	PAH-4	1A2f	FOREST RESIDUE CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2f	GASOIL (FOR NON-ROAD USE)	2.800000000	g/TJ
2023	PAH-4	1A2f	HEAVY FUEL OIL (S<0,1%)	2.800000000	g/TJ
2023	PAH-4	1A2f	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2023	PAH-4	1A2f	INDUSTRIAL WASTE	2.500000000	g/TJ
2023	PAH-4	1A2f	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A2f	MOTOR GASOLINE (S=0.001%)	2.800000000	g/TJ
2023	PAH-4	1A2f	OTHER FOSSIL LIQUID	2.800000000	g/TJ
2023	PAH-4	1A2f	OTHER FUEL	2.700000000	g/TJ
2023	PAH-4	1A2f	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A2f	OTHER WASTE	2.500000000	g/TJ
2023	PAH-4	1A2f	PETROLEUM COKE	0.012000000	g/TJ
2023	PAH-4	1A2f	PLASTIC WASTE	2.500000000	g/TJ
2023	PAH-4	1A2f	RECYCLED AND WASTE OILS	2.800000000	g/TJ
2023	PAH-4	1A2f	REED CANARY GRASS	2.700000000	g/TJ
2023	PAH-4	1A2f	RUBBER WASTE	2.500000000	g/TJ
2023	PAH-4	1A2f	SAWDUST	2.700000000	g/TJ
2023	PAH-4	1A2f	SOLID RECOVERED FUEL (SRF)	2.500000000	g/TJ

2023	PAH-4	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700000000	g/TJ
2023	PAH-4	1A2gvii	GASOIL (FOR NON-ROAD USE)	1.933301248	g/TJ
2023	PAH-4	1A2gvii	LIQUID GAS	1.739130435	g/TJ
2023	PAH-4	1A2gvii	MOTOR GASOLINE (S=0.001%)	2.162266776	g/TJ
2023	PAH-4	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	2.908881553	g/TJ
2023	PAH-4	1A2gviii	BARK	2.650657481	g/TJ
2023	PAH-4	1A2gviii	BIO PELLETS (NON-WOOD)	2.500000000	g/TJ
2023	PAH-4	1A2gviii	BIOLOGICAL SLURRY	2.500000000	g/TJ
2023	PAH-4	1A2gviii	CHIPS FROM ROUNDWOOD	2.879857283	g/TJ
2023	PAH-4	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	2.700000000	g/TJ
2023	PAH-4	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	2.700000000	g/TJ
2023	PAH-4	1A2gviii	CUTTER CHIPS ETC.	2.636400492	g/TJ
2023	PAH-4	1A2gviii	DEMOLITION WOOD	2.687730279	g/TJ
2023	PAH-4	1A2gviii	DIESEL OIL (S=001%)	2.800000000	g/TJ
2023	PAH-4	1A2gviii	FOREST RESIDUE CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2gviii	FOREST RESIDUE CHIPS	1.335885627	g/TJ
2023	PAH-4	1A2gviii	GASOIL (FOR NON-ROAD USE)	2.686772888	g/TJ
2023	PAH-4	1A2gviii	HAZARDOUS WASTE	2.500000000	g/TJ
2023	PAH-4	1A2gviii	HEAVY FUEL OIL (S<0,1%)	2.800000000	g/TJ
2023	PAH-4	1A2gviii	HEAVY FUEL OIL (S<0,5%)	2.800000000	g/TJ
2023	PAH-4	1A2gviii	HEAVY FUEL OIL (S<1%)	2.676270007	g/TJ
2023	PAH-4	1A2gviii	IMPREGNATED WOOD	2.500000000	g/TJ
2023	PAH-4	1A2gviii	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A2gviii	MILLED PEAT	1.039554741	g/TJ
2023	PAH-4	1A2gviii	MUNICIPAL WASTE - unsorted	34.000000000	g/TJ
2023	PAH-4	1A2gviii	NAPHTHA	2.800000000	g/TJ
2023	PAH-4	1A2gviii	OTHER BY-PRODUCTS FROM WOOD PROCESSING INDUSTRY	2.709822459	g/TJ
2023	PAH-4	1A2gviii	OTHER HEAVY DISTILLATES	2.800000000	g/TJ
2023	PAH-4	1A2gviii	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A2gviii	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A2gviii	OTHER WASTE	2.500000000	g/TJ
2023	PAH-4	1A2gviii	OTHER WOOD RESIDUE	2.700000000	g/TJ
2023	PAH-4	1A2gviii	PLASTIC WASTE	2.500000000	g/TJ
2023	PAH-4	1A2gviii	RECOVERED WOOD	2.815622008	g/TJ
2023	PAH-4	1A2gviii	RECYCLED AND WASTE OILS	2.800000000	g/TJ
2023	PAH-4	1A2gviii	RENEWABLE DIESEL	2.800000000	g/TJ
2023	PAH-4	1A2gviii	SAWDUST	2.829004892	g/TJ
2023	PAH-4	1A2gviii	SAWDUST AND CUTTER CHIPS	2.700000000	g/TJ
2023	PAH-4	1A2gviii	SOD PEAT	1.000000000	g/TJ
2023	PAH-4	1A2gviii	SOLID RECOVERED FUEL (SRF)	2.676254094	g/TJ
2023	PAH-4	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	2.702463123	g/TJ
2023	PAH-4	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	2.700000000	g/TJ
2023	PAH-4	1A2gviii	WOOD RESIDUE CHIPS	2.707866553	g/TJ
2023	PAH-4	1A2gviii	WOOD STUMP CHIPS	2.901642066	g/TJ
2023	PAH-4	1A3bi	DIESEL OIL (S=001%)	3.612211283	g/TJ
2023	PAH-4	1A3bi	MOTOR GASOLINE (S=0.001%)	0.687784885	g/TJ
2023	PAH-4	1A3bii	DIESEL OIL (S=001%)	2.719917630	g/TJ
2023	PAH-4	1A3bii	MOTOR GASOLINE (S=0.001%)	0.608137531	g/TJ
2023	PAH-4	1A3biii	DIESEL OIL (S=001%)	1.545016502	g/TJ
2023	PAH-4	1A3biv	DIESEL OIL (S=001%)	3.505365928	g/TJ
2023	PAH-4	1A3biv	MOTOR GASOLINE (S=0.001%)	1.009508301	g/TJ
2023	PAH-4	1A3c	GASOIL (FOR NON-ROAD USE)	1.933301248	g/TJ
2023	PAH-4	1A3dii	DIESEL OIL (S=001%)	0.659895628	g/TJ
2023	PAH-4	1A3dii	GASOIL (FOR NON-ROAD USE)	0.540810617	g/TJ
2023	PAH-4	1A3dii	HEAVY FUEL OIL (normal, S>1%)	1.576155482	g/TJ
2023	PAH-4	1A4ai	BIO-FUEL OIL	2.800000000	g/TJ

2023	PAH-4	1A4ai	FOREST WOODFUEL	0.500000000	g/TJ
2023	PAH-4	1A4ai	GASOIL (FOR NON-ROAD USE)	2.800000000	g/TJ
2023	PAH-4	1A4ai	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2023	PAH-4	1A4ai	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A4ai	NAPHTHA	2.800000000	g/TJ
2023	PAH-4	1A4ai	SOD PEAT	1.000000000	g/TJ
2023	PAH-4	1A4aii	GASOIL (FOR NON-ROAD USE)	1.933301248	g/TJ
2023	PAH-4	1A4aii	MOTOR GASOLINE (S=0.001%)	2.162266776	g/TJ
2023	PAH-4	1A4bi	FOREST WOODFUEL	380.899841597	g/TJ
2023	PAH-4	1A4bi	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A4bi	PARAFFIN	2.800000000	g/TJ
2023	PAH-4	1A4bi	SOD PEAT	1.000000000	g/TJ
2023	PAH-4	1A4bii	GASOIL (FOR NON-ROAD USE)	1.933301248	g/TJ
2023	PAH-4	1A4bii	MOTOR GASOLINE (S=0.001%)	2.162266776	g/TJ
2023	PAH-4	1A4ci	CHIPS FROM ROUNDWOOD	2.700000000	g/TJ
2023	PAH-4	1A4ci	CHIPS FROM ROUNDWOOD, SMALL	2.700000000	g/TJ
2023	PAH-4	1A4ci	COAL (S=1.0%)	0.012000000	g/TJ
2023	PAH-4	1A4ci	FOREST RESIDUE CHIPS	0.490909091	g/TJ
2023	PAH-4	1A4ci	FOREST WOODFUEL	0.500000000	g/TJ
2023	PAH-4	1A4ci	HEAVY FUEL OIL (S<1%)	2.800000000	g/TJ
2023	PAH-4	1A4ci	LIGHT FUEL OIL (S=0.0915%)	2.800000000	g/TJ
2023	PAH-4	1A4ci	OTHER NON-FOSSIL SOLID	2.700000000	g/TJ
2023	PAH-4	1A4ci	RECOVERED WOOD	2.700000000	g/TJ
2023	PAH-4	1A4ci	SOD PEAT	1.000000000	g/TJ
2023	PAH-4	1A4cii	GASOIL (FOR NON-ROAD USE)	1.933301248	g/TJ
2023	PAH-4	1A4cii	MOTOR GASOLINE (S=0.001%)	2.162266776	g/TJ
2023	PAH-4	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.555824109	g/TJ
2023	PAH-4	1A5a	FOREST WOODFUEL	2.700000000	g/TJ
2023	PAH-4	1A5a	LIGHT FUEL OIL (S=0.0915%)	2.877576873	g/TJ
2023	PAH-4	1A5a	OTHER PETROLEUM PRODUCTS	2.800000000	g/TJ

HCB Implied emission factors in Finnish air pollutant inventory for 2023

2023	HCB	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.000004954	kg/TJ
2023	HCB	1A1a	ANTHRACITE	0.000000007	kg/TJ
2023	HCB	1A1a	BARK	0.000004847	kg/TJ
2023	HCB	1A1a	BIOLOGICAL SLURRY	0.000005000	kg/TJ
2023	HCB	1A1a	CHIPS FROM ROUNDWOOD	0.000004690	kg/TJ
2023	HCB	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.000005000	kg/TJ
2023	HCB	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.000005000	kg/TJ
2023	HCB	1A1a	COAL (S=1.0%)	0.000000007	kg/TJ
2023	HCB	1A1a	CUTTER CHIPS ETC.	0.000003979	kg/TJ
2023	HCB	1A1a	DEMOLITION WOOD	0.000005000	kg/TJ
2023	HCB	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.000005000	kg/TJ
2023	HCB	1A1a	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A1a	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A1a	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A1a	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A1a	OTHER WOOD RESIDUE	0.000004818	kg/TJ
2023	HCB	1A1a	PAPER	0.000005000	kg/TJ
2023	HCB	1A1a	RECOVERED WOOD	0.000005000	kg/TJ
2023	HCB	1A1a	SAWDUST	0.000004857	kg/TJ
2023	HCB	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000004756	kg/TJ
2023	HCB	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2023	HCB	1A1a	WOOD RESIDUE CHIPS	0.000004908	kg/TJ
2023	HCB	1A1a	WOOD STUMP CHIPS	0.000004965	kg/TJ

2023	HCB	1A2a	COKE (S=1.0%)	0.000000323	kg/TJ
2023	HCB	1A2a	OTHER FOSSIL SOLID	0.000000620	kg/TJ
2023	HCB	1A2a	WOOD RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2b	COAL (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2b	COKE (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2c	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2023	HCB	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000005000	kg/TJ
2023	HCB	1A2d	BARK	0.000005000	kg/TJ
2023	HCB	1A2d	BIOLOGICAL SLURRY	0.000005000	kg/TJ
2023	HCB	1A2d	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2023	HCB	1A2d	COAL (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2d	CUTTER CHIPS ETC.	0.000005000	kg/TJ
2023	HCB	1A2d	DEMOLITION WOOD	0.000005000	kg/TJ
2023	HCB	1A2d	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2d	OTHER WOOD RESIDUE	0.000005000	kg/TJ
2023	HCB	1A2d	PAPER	0.000005000	kg/TJ
2023	HCB	1A2d	RECOVERED WOOD	0.000005000	kg/TJ
2023	HCB	1A2d	SAWDUST	0.000005000	kg/TJ
2023	HCB	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000005000	kg/TJ
2023	HCB	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2023	HCB	1A2d	WOOD RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2d	WOOD STUMP CHIPS	0.000005000	kg/TJ
2023	HCB	1A2e	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2023	HCB	1A2e	COAL (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2e	COKE (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2e	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2e	OTHER NON-FOSSIL SOLID	0.000004862	kg/TJ
2023	HCB	1A2e	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A2e	RECOVERED WOOD	0.000005000	kg/TJ
2023	HCB	1A2e	SAWDUST	0.000005000	kg/TJ
2023	HCB	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000004843	kg/TJ
2023	HCB	1A2e	WOOD STUMP CHIPS	0.000005000	kg/TJ
2023	HCB	1A2f	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2023	HCB	1A2f	COAL (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2f	COKE (S=1.0%)	0.000000620	kg/TJ
2023	HCB	1A2f	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2f	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A2f	REED CANARY GRASS	0.000005000	kg/TJ
2023	HCB	1A2f	SAWDUST	0.000005000	kg/TJ
2023	HCB	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2023	HCB	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000005000	kg/TJ
2023	HCB	1A2gviii	BARK	0.000004100	kg/TJ
2023	HCB	1A2gviii	BIOLOGICAL SLURRY	0.000005000	kg/TJ
2023	HCB	1A2gviii	CHIPS FROM ROUNDWOOD	0.000005000	kg/TJ
2023	HCB	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.000005000	kg/TJ
2023	HCB	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000005000	kg/TJ
2023	HCB	1A2gviii	CUTTER CHIPS ETC.	0.000004864	kg/TJ
2023	HCB	1A2gviii	DEMOLITION WOOD	0.000005000	kg/TJ
2023	HCB	1A2gviii	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2gviii	FOREST RESIDUE CHIPS	0.000005000	kg/TJ
2023	HCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000005000	kg/TJ
2023	HCB	1A2gviii	OTHER WOOD RESIDUE	0.000005000	kg/TJ
2023	HCB	1A2gviii	RECOVERED WOOD	0.000005000	kg/TJ
2023	HCB	1A2gviii	SAWDUST	0.000005000	kg/TJ

2023	HCB	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000005000	kg/TJ
2023	HCB	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000005000	kg/TJ
2023	HCB	1A2gviii	WOOD RESIDUE CHIPS	0.000005393	kg/TJ
2023	HCB	1A2gviii	WOOD STUMP CHIPS	0.000005000	kg/TJ
2023	HCB	1A3bi	DIESEL OIL (S=001%)	0.000001721	kg/TJ
2023	HCB	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000001625	kg/TJ
2023	HCB	1A3bi	NATURAL GAS	0.000002414	kg/TJ
2023	HCB	1A3bii	DIESEL OIL (S=001%)	0.000001721	kg/TJ
2023	HCB	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000001622	kg/TJ
2023	HCB	1A3bii	NATURAL GAS	0.000002414	kg/TJ
2023	HCB	1A3biii	DIESEL OIL (S=001%)	0.000001721	kg/TJ
2023	HCB	1A3biii	NATURAL GAS	0.000002414	kg/TJ
2023	HCB	1A3biv	DIESEL OIL (S=001%)	0.000001671	kg/TJ
2023	HCB	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000001622	kg/TJ
2023	HCB	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000001881	kg/TJ
2023	HCB	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.000003448	kg/TJ
2023	HCB	1A4ai	FOREST WOODFUEL	0.000005000	kg/TJ
2023	HCB	1A4bi	FOREST WOODFUEL	0.000005000	kg/TJ
2023	HCB	1A4ci	COAL (S=1.0%)	0.000019608	kg/TJ
2023	HCB	1A4ci	FOREST WOODFUEL	0.000005000	kg/TJ
2023	HCB	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000001933	kg/TJ
2023	HCB	1A5a	FOREST WOODFUEL	0.000001000	kg/TJ
2023	HCB	1A5a	LIGHT FUEL OIL (S=0.0915%)	0.000000185	kg/TJ

PCB Implied emission factors in Finnish air pollutant inventory for 2023

2023	PCB	1A1a	0-FIBRE/BIOLOGICAL SLURRY	0.003467675	g/TJ
2023	PCB	1A1a	ANTHRACITE	0.000003300	g/TJ
2023	PCB	1A1a	BARK	0.003393160	g/TJ
2023	PCB	1A1a	BIOLOGICAL SLURRY	0.003500000	g/TJ
2023	PCB	1A1a	CHIPS FROM ROUNDWOOD	0.003282817	g/TJ
2023	PCB	1A1a	CHIPS FROM ROUNDWOOD, LARGE	0.003500000	g/TJ
2023	PCB	1A1a	CHIPS FROM ROUNDWOOD, SMALL	0.003500000	g/TJ
2023	PCB	1A1a	COAL (S=1.0%)	0.000003300	g/TJ
2023	PCB	1A1a	CUTTER CHIPS ETC.	0.002784967	g/TJ
2023	PCB	1A1a	DEMOLITION WOOD	0.003500000	g/TJ
2023	PCB	1A1a	FIREWOOD (STEMS AND SPLIT FIREWOOD)	0.003500000	g/TJ
2023	PCB	1A1a	FOREST RESIDUE CHIPS	0.003500000	g/TJ
2023	PCB	1A1a	FOREST RESIDUE CHIPS	0.003500000	g/TJ
2023	PCB	1A1a	OTHER NON-FOSSIL SOLID	0.003500000	g/TJ
2023	PCB	1A1a	OTHER NON-FOSSIL SOLID	0.003500000	g/TJ
2023	PCB	1A1a	OTHER WOOD RESIDUE	0.003372678	g/TJ
2023	PCB	1A1a	PAPER	0.003500000	g/TJ
2023	PCB	1A1a	RECOVERED WOOD	0.003500000	g/TJ
2023	PCB	1A1a	SAWDUST	0.003399568	g/TJ
2023	PCB	1A1a	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.003328871	g/TJ
2023	PCB	1A1a	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.003500000	g/TJ
2023	PCB	1A1a	WOOD RESIDUE CHIPS	0.003435532	g/TJ
2023	PCB	1A1a	WOOD STUMP CHIPS	0.003475579	g/TJ
2023	PCB	1A2a	COKE (S=1.0%)	0.088697987	g/TJ
2023	PCB	1A2a	OTHER FOSSIL SOLID	0.170000000	g/TJ
2023	PCB	1A2a	WOOD RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2b	COAL (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2b	COKE (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2c	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2023	PCB	1A2c	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ

2023	PCB	1A2d	0-FIBRE/BIOLOGICAL SLURRY	0.000060000	g/TJ
2023	PCB	1A2d	BARK	0.000060000	g/TJ
2023	PCB	1A2d	BIOLOGICAL SLURRY	0.000060000	g/TJ
2023	PCB	1A2d	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2023	PCB	1A2d	COAL (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2d	CUTTER CHIPS ETC.	0.000060000	g/TJ
2023	PCB	1A2d	DEMOLITION WOOD	0.000060000	g/TJ
2023	PCB	1A2d	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2d	OTHER WOOD RESIDUE	0.000060000	g/TJ
2023	PCB	1A2d	PAPER	0.000060000	g/TJ
2023	PCB	1A2d	RECOVERED WOOD	0.000060000	g/TJ
2023	PCB	1A2d	SAWDUST	0.000060000	g/TJ
2023	PCB	1A2d	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000060000	g/TJ
2023	PCB	1A2d	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2023	PCB	1A2d	WOOD RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2d	WOOD STUMP CHIPS	0.000060000	g/TJ
2023	PCB	1A2e	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2023	PCB	1A2e	COAL (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2e	COKE (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2e	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2e	OTHER NON-FOSSIL SOLID	0.000058343	g/TJ
2023	PCB	1A2e	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2023	PCB	1A2e	RECOVERED WOOD	0.000060000	g/TJ
2023	PCB	1A2e	SAWDUST	0.000060000	g/TJ
2023	PCB	1A2e	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000058117	g/TJ
2023	PCB	1A2e	WOOD STUMP CHIPS	0.000060000	g/TJ
2023	PCB	1A2f	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2023	PCB	1A2f	COAL (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2f	COKE (S=1.0%)	0.170000000	g/TJ
2023	PCB	1A2f	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2f	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2023	PCB	1A2f	REED CANARY GRASS	0.000060000	g/TJ
2023	PCB	1A2f	SAWDUST	0.000060000	g/TJ
2023	PCB	1A2f	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2023	PCB	1A2gviii	0-FIBRE/BIOLOGICAL SLURRY	0.000060000	g/TJ
2023	PCB	1A2gviii	BARK	0.000049196	g/TJ
2023	PCB	1A2gviii	BIOLOGICAL SLURRY	0.000060000	g/TJ
2023	PCB	1A2gviii	CHIPS FROM ROUNDWOOD	0.000060000	g/TJ
2023	PCB	1A2gviii	CHIPS FROM ROUNDWOOD, LARGE	0.000060000	g/TJ
2023	PCB	1A2gviii	CHIPS FROM ROUNDWOOD, SMALL	0.000060000	g/TJ
2023	PCB	1A2gviii	CUTTER CHIPS ETC.	0.000058371	g/TJ
2023	PCB	1A2gviii	DEMOLITION WOOD	0.000060000	g/TJ
2023	PCB	1A2gviii	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2gviii	FOREST RESIDUE CHIPS	0.000060000	g/TJ
2023	PCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2023	PCB	1A2gviii	OTHER NON-FOSSIL SOLID	0.000060000	g/TJ
2023	PCB	1A2gviii	OTHER WOOD RESIDUE	0.000060000	g/TJ
2023	PCB	1A2gviii	RECOVERED WOOD	0.000060000	g/TJ
2023	PCB	1A2gviii	SAWDUST	0.000060000	g/TJ
2023	PCB	1A2gviii	UNSPECIFIED INDUSTRIAL WOOD RESIDUE	0.000060000	g/TJ
2023	PCB	1A2gviii	WOOD PELLETS AND BRIQUETTES (REFINED WOOD FUELS)	0.000060000	g/TJ
2023	PCB	1A2gviii	WOOD RESIDUE CHIPS	0.000064714	g/TJ
2023	PCB	1A2gviii	WOOD STUMP CHIPS	0.000060000	g/TJ
2023	PCB	1A3bi	DIESEL OIL (S=001%)	0.000001900	g/TJ
2023	PCB	1A3bi	MOTOR GASOLINE (S=0.001%)	0.000000834	g/TJ
2023	PCB	1A3bii	DIESEL OIL (S=001%)	0.000002735	g/TJ

2023	PCB	1A3bii	MOTOR GASOLINE (S=0.001%)	0.000001930	g/TJ
2023	PCB	1A3biii	DIESEL OIL (S=001%)	0.000000167	g/TJ
2023	PCB	1A3biv	DIESEL OIL (S=001%)	0.000009456	g/TJ
2023	PCB	1A3biv	MOTOR GASOLINE (S=0.001%)	0.000001917	g/TJ
2023	PCB	1A3dii	GASOIL (FOR NON-ROAD USE)	0.000893513	g/TJ
2023	PCB	1A3dii	HEAVY FUEL OIL (normal, S>1%)	0.014037635	g/TJ
2023	PCB	1A4ai	FOREST WOODFUEL	0.000060000	g/TJ
2023	PCB	1A4ai	HEAVY FUEL OIL (S<1%)	0.000087591	g/TJ
2023	PCB	1A4ai	LIGHT FUEL OIL (S=0.0915%)	0.000084001	g/TJ
2023	PCB	1A4ai	SOD PEAT	0.000055954	g/TJ
2023	PCB	1A4bi	FOREST WOODFUEL	0.000060000	g/TJ
2023	PCB	1A4bi	LIGHT FUEL OIL (S=0.0915%)	0.000084309	g/TJ
2023	PCB	1A4bi	SOD PEAT	0.000073171	g/TJ
2023	PCB	1A4ci	COAL (S=1.0%)	0.000176471	g/TJ
2023	PCB	1A4ci	FOREST WOODFUEL	0.000060000	g/TJ
2023	PCB	1A4ci	HEAVY FUEL OIL (S<1%)	0.000087591	g/TJ
2023	PCB	1A4ci	LIGHT FUEL OIL (S=0.0915%)	0.000017904	g/TJ
2023	PCB	1A4ci	SOD PEAT	0.000071460	g/TJ
2023	PCB	1A4ciii	GASOIL (FOR NON-ROAD USE)	0.000918318	g/TJ

Annex 2

Emission factor tables for point sources

Nitrogen oxides, NO_x

Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004) (www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekisterit > Päästötiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

NO _x -emission factors	15-50 MW		
	Fuel	Combustion technology	Emission factor mg/MJ
Coal >50%	All	170	1
Peat >50%	Grate	200	1
	BFB	160	1
	CFB	120	1
	Gasification	220	1
Wood >50%	Grate	140	1
	BFB	120	1
	CFB	100	1
	Gasification	170	1
Mixed burning. no fuel more than 50 %	Grate	200	1
	BFB	160	1
	CFB	120	1
	Gasification	220	1
Natural gas	Burner	70	1
Heavy fuel oil	Burner	180	1
Light fuel oil	Burner	100	1
Gas turbines. natural gas		150	1
Gas motor (SG)/ double fuel (DF)		160	1
Gas diesel motor (GD), Gas		1500	1
Oil diesel motor (CI)		2000	1

Source:

1. Jalovaara, J.; Aho J.; Hietamäki E.; Hyytiä V.; Paras käytettävissä oleva tekniikka (BAT) 5-50 MW:n polttolaitoksissa Suomessa, Suomen Ympäristö 649, Suomen ympäristökeskus, Helsinki 2003 (In Finnish)

- Tables pp. 16-19. Tyypilliset ominaispäästökertoimet pienissä polttolaitoksissa

NMVOC, non-methane volatile organic compounds

Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät – Energiantuotanto (10.6.2004)
(www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästökisterit)
> Päästötiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

Fuel	Emission factor mg/MJ	Source
Coal	1	1
Natural gas	1	1
Heavy fuel oil	1	1
Light fuel oil	1	1
Peat	2	1
Wood	2	1
Peat fluidized bed	3	1
Wood. fluidized bed	3	1

Source:

1. Expert estimation based on national measurement data

Carbon monoxide, CO

Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004)

(www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekkisterit > Päästötiedon tuottaminen

> Aineistoa päästöjen määrittäminen > Energiantuotanto). in Finnish

Fuel	Combustion technology	Capacity			
		15-50 MW	50-150 MW	150-300 MW	>300 MW
		Emission factor			
		mg/MJ	mg/MJ	mg/MJ	mg/MJ
Coal >80%	Burning			5	5
	Grate	30	30	5	5
	Fluidized bed	30	30	5	5
Coal mixed burning 50-80%	All	30	30	10	10
Peat >80%	Grate	100	30	10	10
	Fluidized bed	100	30	10	10
	Other	30	10	10	10
Peat mixed burning 50-80%	Grate	100	30	10	10
	Fluidized bed	100	30	10	10
	Other	70	30	10	10
Wood >80%	Grate	250	250	150	150
	Fluidized bed	150	150	150	150
	Other	250	250	150	150
Wood mixed burning 50-80%	Grate	250	250	70	70
	Fluidized bed	150	150	70	70
	Other	150	150	70	70
Mixed burning no fuel more than 50 %	Grate	100	50	30	30
	Fluidized bed	100	50	30	30
	Other	100	50	30	30
Natural gas	Burning	20	20	20	20
Oil	Burning	20	20	20	20
Gas turbines. natural gas		20	20	20	20

Polychlorinated dioxins and furans, PCDD/F

Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004) (www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekisterit > Päästötiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

Fuel	PCDD/F-emission factors	
	mg I-TEQ/TJ	Source
Coal	0.004	1*
Heavy fuel oil	0.0004	1*
Light fuel oil	0.0005	1*
Wood	0.021	2*
Peat	0.0175	3
Natural gas	0.0005	4

Sources:

1. Expert estimate based on UNEP (1999). Dioxin and furan inventories. National and regional emissions of PCDD/PCDF. May 1999 (Germany: Investigation of emissions)

2. Expert estimate based on USEPA (1997) Locating and Estimating Air Emissions from Sources of Dioxins and Furans. USEPA. May 1997. Office of Air Quality Planning And Standards

3. Ruuskanen (2000). Mittaukset; Dioksiineja vähentävät ympäristönsuojelukeinot 1990-luvulla ja uudet mahdollisuudet. Juhani Ruuskanen. Ympäristö- ja terveystieteitä 3:2000. In Finnish

4. UNEP (2003). UNEP/POPS/INC.7/INF/14: Standardized Toolkit for Identification and quantification of Dioxin and Furan Releases. 1st edition. May 2003.

www.pops.int;

(based on measurements in Belgium, Germany and Switzerland)

**Polyaromatic hydrocarbons , PAH-4
expressed as the sum of benzo(a)pyrene. benzo(b)fluoranthene,
benzo(k).fluoranthene and indeno(1.2.3.-cd)pyrene**

Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästötietojen tuottamismenetelmät - Energiantuotanto (10.6.2004)
(www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekitterit > Päästötiedon
tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

PAH-4 expressed as the sum of benzo(a)pyrene. benzo(b)fluoranthene. benzo(k)fluoranthene and indeno(1.2.3.-cd)pyrene	Emission factor		
	g/t	g/TJ	Source
Fuel			
Coal	0.0003	0.012	1
Heavy fuel oil	0.12	2.8	2
Light fuel oi	0.12	2.8	2
Wood	0.03	2.7	3
Peat		1	4

Sources:

1. Expert estimate based on EEA(2003) Emission Inventory Guidebook
2. Expert estimate based on UBA (1998). Investigation of emissions and abatement measures for persistent organic pollutants in the FRG. Research Report 295 44 365. UBA-*FB 98-115/e. 75/98
3. Expert estimate based on TNO (1995). Technical paper to the OSPARCOM-HELCOM-UNECE emission Inventory of Heavy Metals and POP. TNO-Report TNO-MEP - 95/247:
4. Expert estimate based on KTM (1988). Energiatuotannon kokonaispäästöt Suomessa, KTM. Energiaosasto. D:162.1988. In Finnish

Heavy metals

Arsenic (As), Mercury (Hg), Cadmium (Cd), Chrome (Cr), Copper (Cu), Nickel (Ni), Lead (Pb) and Zinc (Zn)

Point source emission factors for > 50 MW facilities

Updated September 2006

Source: Päästö tietojen tuottamismenetelmät - Energiantuotanto (10.6.2004) (www.ymparisto.fi > Yritykset ja yhteisöt > Päästöt > Päästörekisterit > Päästö tiedon tuottaminen > Aineistoa päästöjen määrittämiseen > Energiantuotanto). in Finnish

Fuel	Emission factors [$\mu\text{g}/\text{MJ}$]				
	no abatement	cyclone	washer	electric filter	electric filter + desulphuration
Arsenic (As)					
Heavy fuel oil	2	1	-	-	
Peat	81	33	11	0.5	
Coal	130	26	17	7.8	1.0
Wood	1	0.3	0.13	0.1	
Mercury (Hg)					
Heavy fuel oil	0.03	0.03	-	-	
Peat	2.6	2.6	2.3	1.3	
Coal	3.7	3.7	3.3	1.4	0.95
Wood	0.5	0.5	0.45	0.5	
Cadmium (Cd)					
Heavy fuel oil	0.3	0.2	-	-	
Peat	2.8	1.1	0.4	0.02	
Coal	18	3.6	2.3	0.2	0.09
Wood	5	2	0.65	0.5	
Chrome (Cr)					
Heavy fuel oil	1	0.5	-	-	
Peat	140	56	18	0.8	
Coal	1000	200	130	5	1.5
Wood	35	9	4.5	2	
Copper (Cu)					
Heavy fuel oil	2.5	1	-	-	
Peat	220	89	29	1.3	
Coal	350	70	45	4	1.8
Wood	51	12.75	12.75	5	

Fuel	Emission factors [$\mu\text{g}/\text{MJ}$]				
	no abatement	cyclone	washer	electric filter	electric filter + desulphuration

Nickel (Ni)

Fuel	Emission factors [$\mu\text{g}/\text{MJ}$]				
	Heavy fuel oil	300	150	-	-
Peat	140	58	19	0.8	
Coal	800	160	100	4	1
Wood	30	8.5	3.9	2	

Lead (Pb)

Fuel	Emission factors [$\mu\text{g}/\text{MJ}$]				
	Heavy fuel oil	25	10	-	-
Peat	170	68	22	1	
Coal	790	160	100	3.9	1.2
Wood	45	12	6	3.4	

Zinc (Zn)

Fuel	Emission factors [$\mu\text{g}/\text{MJ}$]				
	Heavy fuel oil	12	6	-	-
Peat	330	130	43	8	
Coal ⁽¹⁾	1500	300	195	84	12
Wood	700	175	175	54	

(1large variation between facilities although factors are based on measurements)

Vanadium (V)

Fuel	Emission factors [$\mu\text{g}/\text{MJ}$]				
	Heavy fuel oil	1000	450	-	-
Peat	180	74	24	1.1	
Coal	1400	270	180	6.9	3.1
Wood	100	25	13	9	

Sources:

- "NOT ABATED" emission factors are based on expert estimation on the measured heavy metal concentrations in fuels and on a coarse division between the bottom and fly ash .

- Hupa M. et al. (1988). Total emissions from energy production in Finland Hki 1988. Ins.tsto Prosesikemia Ky. Ministry of Trade and Industry. Energy Department. Research Reports D:162. In Finnish.

- Melanen et al. (1999). Raskasmetallien päästöt ilmaan Suomessa 1990-luvulla Suomen ympäristö 329. Suomen ympäristökeskus 1999. p. 86 //Kivihiili: Taulukko 3. Liite 5. (s. 69).Turve: Taulukko 4. Liite 6. (s. 72) . In Finnish
- Kouvo Petri (2003). Formation and control of trace metal emissions in co-firing of biomass, peat and wastes in fluidized bed combustors. Lappeenrannan teknillinen yliopisto. Academic Dissertation. 148. 2003.
- Harju. t. and Munthe. J. (2000). Optimal utilisation of coal in modern power plants with respect to mass flows and emissions of VOC/PAHs and mercury. OMPAC. VTT 31.12.2000. p. 238. Workpackage PIV.1 Field measurement campaign in Helsinki Energy (T. Harju/VTT. J. Munthe/IVL)
- Helsingin Energia/Fortum (2003). Kivihiilen kertoimet sähkösuotimen ja rikinpoiston jälkeen perustuvat suomalaisilta laitoksilta saatuihin mittaus-/ominaispäästötietoihin. In Finnish

Annex 3

Basis of Estimation of Emissions from Transport

Basis for estimating emissions from mobile sources.

NFR19	Description	Fuel sold	Fuel used
1A3ai(i)	International aviation (LTO)	x	
1A3ai(ii)	International aviation (Cruise)	x	
1A3aii(i)	1A3aii Civil aviation (Domestic, LTO)	x	
1A3aii(ii)	1A3aii Civil Aviation (Domestic, Cruise)	x	
1A3b	Road transport	x	
1A3c	Railways	x	
1A3di(i)	International maritime navigation	x	
1A3dii	National navigation	x	
1A4aii	Commercial/institutional	x	
1A4bii	Residential: Household and gardening	x	
1A4cii	Agriculture/Forestry/Fishing: Off-road vehicles and other machinery	x	
1A4ciii	National fishing	x	
1A5b	Other mobile (Including military)	x	

Annex 4

Net caloric values and sulphur contents of fuels

Net caloric values by fuel

Fuels	NCV	Unit	Source of emission factor
Liquid fuels			
Town gas	16.9	GJ/1000 m3	Neste 1993
Refinery gas (+ other gases)	49 (45-55)	GJ/t	Plant-specific
LPG (liquefied petroleum gas)	46.2	GJ/t	Neste/ET2004
Naphta	44.3	GJ/t	EE
Motor gasoline	43	GJ/t	VTT/Liisa Model/Neste
Aviation gasoline	43.7	GJ/t	EE/Neste
Jet fuel	43.3	GJ/t	EE /Fortum 2002
Other kerosenes (vaporising oil, lamp kerosene)	43.1	GJ/t	EE/IPCC1996
Diesel oil	42.8	GJ/t	VTT/Liisa Model/Neste
Gasoil (light fuel oil, heating fuel oil)	42.7	GJ/t	Neste/EE
Gasoil (for non-road use)	42.8	GJ/t	EE (same as diesel oil)
Residual fuel oil (heavy fuel oil), low sulphur	41.1	GJ/t	Neste/EE
Residual fuel oil (heavy fuel oil), normal	40.5	GJ/t	Neste/EE
Other residual fuel oil (heavy bottom oil)	40.2	GJ/t	Neste/EE
Petroleum coke	33.5 (20-36)	GJ/t	Plant-specific
Recycled waste oil	41	GJ/t	EE (=RFO)
Other petroleum products	35 (30-47)	GJ/t	EE (=RFO)
Solid fuels			
Anthracite	33.5	GJ/t	IPCC1996
Hard coal (bituminous)	25.5 (21-32)	GJ/t	StatFi 2005
Coal briquettes	30	GJ/t	EE
Coal tar	36.5	GJ/t	Plant-specific
Coke	29.3 (25-35)	GJ/t	IPCC1996
Coke oven gas	16.7	GJ/1000 m3	Plant-specific
Blast furnace gas	11.2-11.5 3.6	GJ/1000 m3	Plant-specific
Gaseous fuels			
Natural gas	36	GJ/1000 m3	Gasum 2005
Gasified solid waste*	13.3 (7-30)	GJ/1000 m3	EE
Biomass fuels			
Wood fuels (solid, includes e.g. firewood, bark, chips, sawdust and other industrial wood residues, recycled wood, pellets and briquettes)	7.8–16	GJ/t	IPCC1996
Black and sulphite liquors	7.3–15	GJ/t	IPCC1996
Other by-products from wood processing industry (includes e.g. pine oil and tar, methanol, fibrous sludge, waste paper, stink gas, etc.)	3–37 20	GJ/t GJ/1000 m3	IPCC1996, VTT2045, EE
Plant and animal residues	10-35	GJ/t	EE (=wood)
Biogas (landfill gas, biogas from wastewater treatment, industrial biogas and other biogas)	15–20.5	GJ/1000 m3	EE
Hydrogen	10.8	GJ/1000 m3	
Other fuels, peat			
Peat (milled)	10.1	GJ/t	VTT 2003
Peat (sod peat)	12.3	GJ/t	VTT 2003
Peat (pellets and briquettes)	20.9	GJ/t	VTT 2003
Other fuels, wastes etc.			
Mixed fuels* (REF, RDF, PDF, MSW)	10–21	GJ/t	StatFi 2004

Demolition wood*	8-15	GJ/t	StatFi 2004
Impregnated wood*	12	GJ/t	StatFi 2004
De-inking sludge*	4	GJ/t	EE
Other residues and by-products	30	GJ/t	EE
Plastics waste	33 (25-40)	GJ/t	EE
Rubber waste	33	GJ/t	StatFi 2004
Hazardous waste	15 (10-15)	GJ/t	Ekokem 2004
Other non-specified waste (industrial waste, etc.)	15-30	GJ/t	EE

* Mixed fuels: contains fossil and non-fossil carbon; the CO₂ emission factor refers only to the fossil fraction of total energy content.

Sources:

EE: expert estimation Kari Grönfors, Statistics Finland

Neste 1993: Composition and properties of natural gas and liquefied petroleum gas (in Finnish)

Neste: product data sheets, personal communications

VTT/Liisa Model: Calculation system of road traffic emissions

StatFi 2004: Mixed fuels in Finland's greenhouse gas inventory and on compilation of the energy statistics (Masters Thesis of Minna Jokinen)

StatFi 2005: Research of Teemu Oinonen (not published, see Annex 3)

Ekokem 2004: Environmental report 2004

Gasum 2005: personal communication

VTT2045: Properties of fuels used in Finland, VTT 2000

Fortum 2002: Composition of kerosenes

VTT 2003: Vesterinen 2003

The default NCVs are practically constant over time. There are some exceptions concerning plant specific fuels like refinery gases, BFG and certain waste-derived fuels. The operators should report to VAHTI system both fuel quantities as well as energy contents of the fuels used. Thus in bottom-up data there are some variations in the NCVs. The annual average values of reported data are compared to the default NCVs. Also plant level NCVs are compared to default NCVs.

Peat is one of the main fuels in Finland. It is the fourth largest fuel (after wood, hard coal and natural gas), representing over 6% of Total primary energy supply (TPES) and over 8% of combustible fuels. Its share is higher than for example the share of any liquid fuel. The share of peat is generally around half of the share of hard coal, but varies considerable, like the share of hard coal, too.

Fuel specific sulphur contents

Fuel	Fuel	Default S%
11000	Petroleum products	0.21
11108	town gas	0.00001
11109	Other fossile gas	0.004
11110	Refinery gas	0.01
11120	Light distillates	0.00002
11210	Naphtha	0.005
11220	Motor gasoline (S=0.001%)	0.001
11230	Aviation gasoline	0.002
11310	Kerosene (jet fuel)	0.04
11320	Other kerosenes	0.07
11321	motor kerosene	0.07
11322	paraffin oil	0.02
11330	Diesel oil (S=0.001%)	0.001
11340	LFO (S=0.0915%)	0.0915
11350	Gasoil (for non-road use)	0.001
11390	Other medium distillates	0.12
11410	HFO (S<1%)	0.9
11420	HFO (normal, S>1%)	1.4
11430	Other heavy distillates	2.7
11500	Petroleum coke	1
11600	Recycled and waste oils	0.9
11601	Refined recycled and waste oils	0.9
11900	Other petroleum products	1
12110	Anthracite	1.5
12120	Hard coal, bituminous	0.8
12210	Semi-bituminous coal, brown coal, lignite	0.8
12220	Coal briquettes	2
12280	Coal tar	0.25
12290	Other non-specified coal	1
12300	Coke (S=1.0%)	1
12400	Coke oven gas	0.05
12500	Blast furnace gas	0.000001
12600	Converter gas	0.000001
13100	Natural gas	0.0001
21100	Milled peat	0.1
21200	Sod peat	0.11
21300	Peat pellets and briquettes	0.16
31100	Forest fuelwood	0.01
31110	Firewood (stems and split firewood)	0.015
31120	Chips from roundwood	0.01
31130	Forest residue chips	0.01
31210	Bark	0.0165
31220	Sawdust, cutter shavings etc.	0.0075
31230	Wood residue chips	0.008

31231	Plywood residues	0.018
31280	Unspecified industrial wood residue	0.012
31290	Other industrial wood residue	0.012
31301	Black liquor and other concentrated liquors	5
31302	sulphite waste liquor	5
31400	Other by-products from wood processing industry	0.018
31401	tall-oil pitch	0.5
31402	Metanol	1
31403	0-fibre/bio sludge	0.6
31404	Paper	0.038
31406	Odorous gases	15
31409	Other non-fossile liquid	2.5
31500	Recovered wood	0.15
31600	Wood pellets and briquettes	0.009
31700	Vegetable-based fuels	0.075
31800	Animal-based fuels	0.075
32110	Landfill gas	0.01
32120	Biogas from wastewater treatment	0.01
32130	Industrial biogas	0.01
32190	Other biogas (other non-fossile gas)	0.01
32200	Liquid biofuels	0.002
32311	Recovered fuels REF 1-waste sorted according to origin	0.14
32312	Recovered fuels REF 2-waste sorted according to origin	0.12
32313	Recovered fuels REF 3-waste sorted according to origin	0.1
32314	PDF-packaging waste	0.14
32315	RDF-municipal waste, mechanically sorted	0.22
32316	Municipal waste - unsorted	0.25
32320	Demolition wood	0.1
32331	Salt impregnated wood	0.02
32332	Creosote impregnated wood	0.07
32390	Other mixed fuels (other waste)	0.25
32391	Deinking waste	0.08
32400	Gasified waste	0.003
49110	Plastic waste	0.2
49120	Rubber waste	1.5
49130	Hazardous waste	0.1
49190	Other by-products and waste products (industrial waste)	1
49195	Suphur concentrate	10
49200	Exothermic heat from industry (other liquid)	0
49300	Secondary heat from industry	0
49800	Hydrogen	0.000001

Annex 5

QA/QC Tools

Updated March 2022 (JM)

QA/QC Tools for the Finnish Air Pollutant Emissions Inventory

This Annex of the IIR describes the components of the QA/QC toolset specifically designed for the inventory process.

The developed toolset consists of a tool for analysing and compiling NFR tables and several more specified investigation tools for investigating data content of air emission database IPTJ. The tools were mostly developed with Microsoft Excel and SQL Server Management Studio. Methods described in this chapter do not replace or remove any previously existing QA/QC routines, which include procedures described in the EMEP/EEA Guidebooks.

1.1 NFR Compilation tool

The NFR compilation tool provides means to compile, analyse and correct NFR table files. It is designed to be used in sync with the latest reporting sheets but is also suitable for performing the same procedures on previously submitted files or submission files of other nations. It also provides means for notation key management.

2.1.1 Time series from reporting sheets

The user is able to retrieve time series for all pollutants and NFR categories as well as their contributing rows from IPTJ. The emission intensity is visualized with conditional formatting and the following automatic check-ups are made:

- Strongly deviating values
- Gaps in series
- Inconsistency in notation keys
- Sudden drops or increases in emissions.
- Linear estimates for missing values (feature not used in inventory)

The following diagram explains the compilation of time series from the NFR reporting sheet. User selects a cell and with a quick key the time series for the corresponding pollutant and category is collected. The following examples are for demonstration purposes only and cover only the years 1980-1996. Some artificial errors are also included in order to present examples of the check-ups.

1A1a	NOx	Notes
1980	129.228	The value deviates over 100 % from the series median.
1981	109.120	
1982	104.120	
1983	93.436	
1984	88.553	Gap in series. Linear estimation: 96,5075
1985		
1986	104.462	
1987	112.601	A drop of 49,1 % in emission levels. Check continuity.
1988	113.043	
1989	116.964	
1990	59.539	
1991	58.921	Possibly erroneous value in set.
1992	47.001	
1993	51.560	
1994	51.819	
1995	39.101	
1996	46.389	
...	...	

The expert can also loop the procedure over all pollutants and create a compilation table of all pollutants for the selected category (NFR category or national totals).. Relative standard deviation is calculated and an index value is calculated to estimate the reliability of the series. Any changes in values or notation keys can be immediately exported back to the reporting sheet.

Table 1 – Example of a time series compilation table after looping through all pollutants. Pollutants expand horizontally and years vertically.

NATIONAL TOTAL	NOx (as NO2)	NMVOC	SOx (as SO2)	NH3	PM2.5	PM10	TSP	BC	CO	...
1980	303.825	NE	583.828	34.272	NE	NE	NE	NE	NE	...
1981	283.975	NE	533.830	34.759	NE	NE	NE	NE	NE	...
1982	279.406	NE	483.828	35.334	NE	NE	NE	NE	NE	...
1983	270.513	NE	371.831	35.522	NE	NE	NE	NE	NE	...
1984	266.352	NE	367.830	35.619	NE	NE	IE	NE	NE	...
1985	284.028	NE	381.832	35.636	NE	NE	NE	NE	NE	...
1986	285.889	NE	330.831	35.348	NE	NE	NE	NE	NE	...
1987	297.204	229.852	327.834	34.630	NE	NE	NE	NE	NE	...
1988	302.181	264.123	301.838	33.998	NE	NE	NE	NE	NE	...
1989	310.009	258.209	243.844	12.022	NE	NE	NE	NE	NE	...
1990	305.629	233.472	248.544	33.630	48.366	72.694	98.952	10.212	720.735	...
1991	NA	219.563	205.275	31.641	43.445	65.150	85.630	9.708	688.077	...
1992	275.374	214.625	155.967	30.767	39.899	59.213	77.930	9.441	667.862	...
1993	277.728	207.533	137.396	31.167	37.033	55.526	72.983	9.225	654.655	...
1994	277.596	205.741	122.529	32.106	36.375	54.637	72.888	9.105	636.460	...
1995	258.139	200.357	104.442	32.417	34.726	51.327	68.062	8.859	629.857	...
1996	262.178	193.999	108.994	33.432	33.842	49.945	65.863	8.577	620.323	...
:	:	:	:	:	:	:	:	:	:	...
RSD (%)	22.2 %	31.4 %	86.4 %	4.8 %	24.3 %	21.5 %	19.3 %	23.4 %	24.2 %	...

* RSD, Relative Standard Deviation

2.1.2 Notation key management

The compilation table is especially suitable for notation key management, as all data can be imported and exported to and from the NFR submission file. The tool allows notation key management in many different ways:

- Directly in the NFR sheet
 - The notation key of the selected cell can be multiplied for all years or a prompted range of years with dedicated quick keys.
- In the compilation table
 - The compilation table makes it easy to spot and correct inconsistencies in notation keys over the time series. It also enables mass editing of NK's for example when changes in categorization occurs.
- In the time series analyzer

VBA-assisted lookup functions deliver the modified data in their corresponding places in the NFR sheet.

2.1.3 Compiling sheets for new inventory year

The tool also allows instant delivery of emission values from IPTJ to the reporting sheet. The expert selects the current inventory year, and emission values are retrieved from the database using an SQL-assisted PowerPivot query. Notation keys are retrieved from the corresponding year of the previously selected NFR reference file.

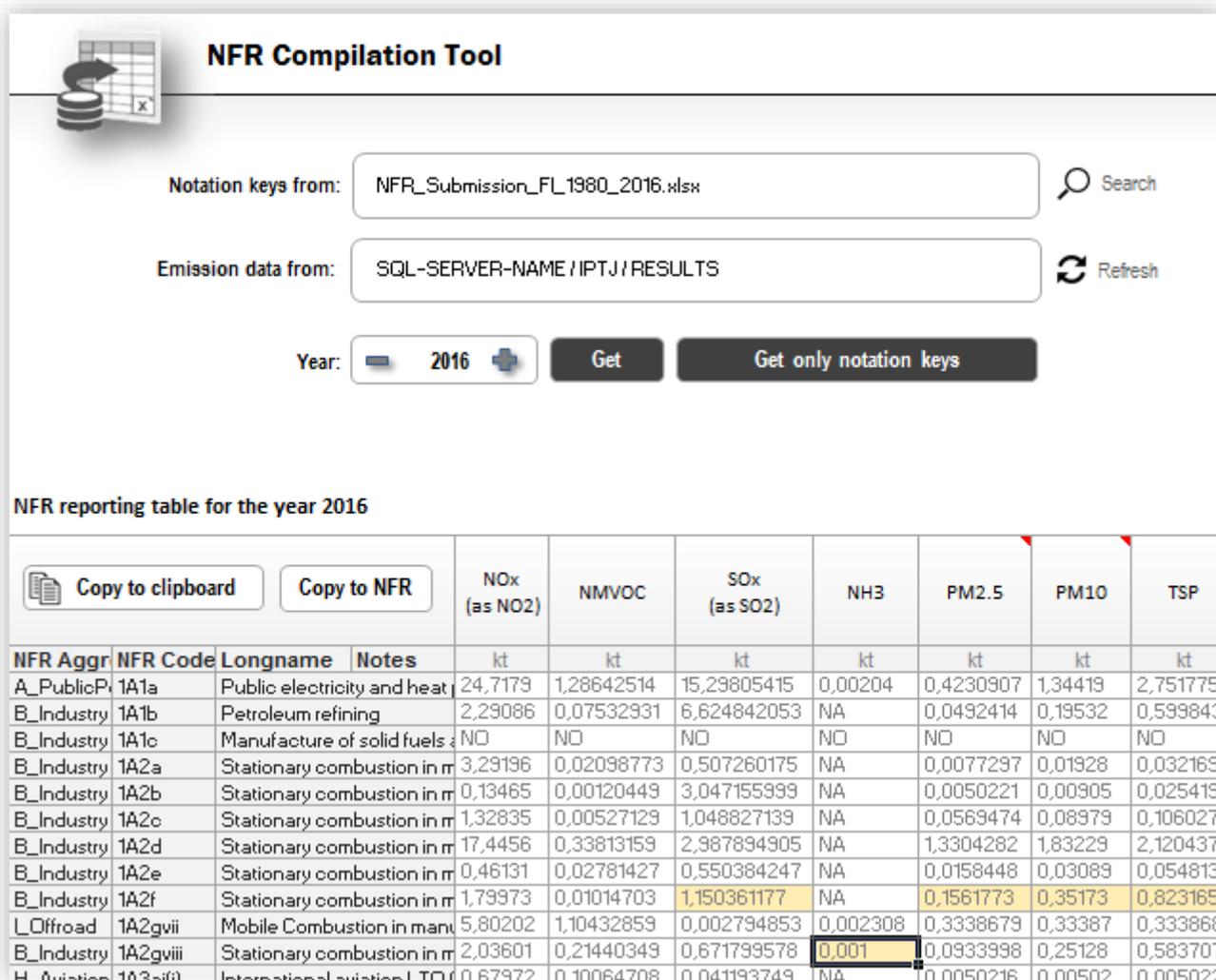


Figure 1 - A screenshot of the NFR compilation tool

The compilation tool performs checks and compares data and labels the cell with individual colors when:

- Emission value is **x** % higher than in previous year*
- Emission value is **x** % less than in previous year*
- If BC > PM2.5 > PM10 > TSP
- Sum of PAH's doesn't equal to Total 1-4,
- Emission value is 10 times higher, or a value is missing where previously reported
- Zero values
- Values where IPTJ content is newer than in the reporting sheet

* **x** is user adjustable.

The data collected by the compilation tool can be exported to the reporting sheet with a one click solution. It is also possible to roll through all years in order to keep IPTJ content always in unison with reporting sheets.

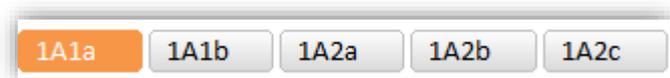
1.2 Tools for data analysis, compilation and management

To expand the scope of investigation limited by the main tool, several more specified tools were constructed by using the same technologies and disciplines to reveal issues of more specific types and levels of detail. These tools include:

- Time series analysis at six different levels of detail:
 - Point level (a facility can have multiple points)
 - Facility level (a SNAP category typically consists of multiple facilities)

- SNAP categorization (SNAP category is usually a subset of an NFR category)
- NFR categorization
- By fuel types
- Total emissions
- Tool to sort all point sources with highest contribution to overall emissions
- Tool to investigate key sources per pollutant
- A query to calculate implied emission factors
- A query to investigate the consistency of categories between different sources
- NULL-finder to reveal rows with missing essential information, such as emission values or categorizations.
- A query to find duplicate rows
- A query to manually back-up the main results table before major changes
- A routine to reveal point level gaps in time series and to estimate the combined effect of them.

The tools above connect to IPTJ and are able to utilize the latest inventory data. They connect to IPTJ via an ODBC connection and they utilize a combination techniques native to Microsoft Excel, PowerPivot and SQL. In some cases the tools are enhanced with VBA. By using PowerPivot for data retrieval, the upper limit of rows rarely becomes an issue in data management. A typical control element is a PivotTable slicer.



2.1.4 Time series analysis for individual boilers or processes

The tool compiles a table by dimensions of *year x pollutant* after selecting a source. The tool alerts on years that are completely missing and when the maximum emission value deviates over ten times from the series median for any pollutant. The results are enhanced with conditional formatting to highlight the relative differences in emission values. Gaps in emission values are also displayed per pollutant.

Table 2 – Example of time series by point result sheet. Pollutants expand horizontally and years vertically.

RSD (%)	14.3 %	14.4 %	26.3 %	NA	...
----------------	--------	--------	--------	-----------	-----

Year	NOx as NO2	NMVOC	SOx as SO2	NH3	...
1990	58.828	4.54E-01	76.066		...
1991	58.760	4.29E-01	68.817		...
1992	46.651	4.12E-01	49.151		...
1993	51.175		49.486		...
1994	51.530	5.25E-01	46.905		...
1995	38.855	5.38E-01	36.616		...
1996	46.157	6.13E-01	45.303		...
⋮	⋮	⋮	⋮	⋮	...

2.1.5 Time series analysis at facility level

The expert selects a pollutant to investigate. This forms a table with the dimensions of *facility x year*. The tool groups all point sources (e.g. individual boilers) into their corresponding facilities. The processes are described in the greatest detail possible. The expert can now browse through time series of all facilities and quickly investigate which events (e.g. changes in processes) actually contribute to the varying emission values. It also reveals if a point ID has changed during the

time series, thus patching the shortcomings of TS investigation by point ID only. The expert can filter the dataset by NFR category or certain range of years.

2.1.6 Time series by NFR and SNAP

In comparison to NFR categorization SNAP categorization is a more detailed and in IPTJ content in all cases a subset of an NFR category. The tools are identical to each other except by the controls for categorization. The tools flags missing years and if a pollutant maximum value is ten times greater than the series median.

2.1.7 Time series by fuel

The tool compiles time series by either a specific fuel or fuel groups (e.g. liquid fuels) by selecting the desired set from control slicers. These selections can be made independently of each other. Similarly to the previous tool, relative standard deviation for each pollutant is calculated and flagged if the maximum value is ten times greater than the series median.

2.1.8 Key source analysis

Categories that contribute to 80 % of emissions per pollutant are considered as key categories. The Approach 1 key categories according to the level of emissions can be quickly retrieved for all pollutants and years by using control slicers. The table calculates the sector sum, percentage of total emissions and cumulative percentage of emissions in an inclining order. Dataset can be filtered by NFR categories, for example to exclude NFR sheet memo items from key category analysis.

Year

1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
2008	2009	2010	2011	2012	2013	2014	2015	2016	9999				

Pollutant

	As	BC	Cd	CO	Cr	Cu	HCB
Hg	NH3	Ni	NMVOG	NOx (as N...	PAHs	Pb	PCBs
PCDD/PC...	PCP	PM1	PM10	PM2.5	Se	SOx (as S...	TSP
Zn	benzo(a)...	benzo(b)fl...	benzo(k)fl...	HCH	Indeno(1,...	PCDD	PCDF

NFR	Sector sum	Percentage of total	Cumulative percentage	Key category?
1A1a	15 298.05	38.04 %	38.04 %	Yes
1A1b	6 624.84	16.47 %	54.51 %	Yes
1A2b	3 047.16	7.58 %	62.08 %	Yes
1A2d	2 987.89	7.43 %	69.51 %	Yes
2B10a	1 737.09	4.32 %	73.83 %	Yes
1A5a	1 256.96	3.13 %	76.96 %	Yes
1A2f	1 150.36	2.86 %	79.82 %	Yes
1A4ai	1 088.00	2.71 %	82.52 %	Yes
1A2c	1 048.83	2.61 %	85.13 %	
1A4bi	1 007.76	2.51 %	87.64 %	
2H1	960.19	2.39 %	90.02 %	
2C1	743.57	1.85 %	91.87 %	
1A4ci	705.79	1.75 %	93.63 %	
1A2gviii	671.80	1.67 %	95.30 %	

1A2e	550.38	1.37 %	96.66 %
1A2a	507.26	1.26 %	97.93 %
1A3ai(ii)	480.28	1.19 %	99.12 %
⋮	⋮	⋮	⋮

Checking gaps and discontinuity in emissions of energy sector point sources

This chapter explains the search of gaps and discontinuities in the energy sector emission data that was carried out during the time series update of 2017 and 2018. Many of the observations described here have since been corrected and are not present in the latest inventories.

1.3 Search of discontinuities

The routine checks for gaps in time-series where the following conditions are met:

- a point has more than one entry in time series per pollutant
- missing value exist in a range between two existing values (i.e. if a missing value exists in the beginning or the end of the series, it will not be revealed)
- Series connects the same point and pollutant

The routine also marks the last known values before and ahead of the found gap. A gap can therefore consist of more than one year, and the duration of the gap is recorded.

The check-up formula translates as follows:

If $y_i \neq y_{i-1} + 1$, then print for the row i : "the values for the years $y_{i-1} + 1 - y_i - 1$ missing"

where,

i = row index

y = year

y_{i-1} = year of the previous row

$y_i - 1$ = actual previous year

If the previous condition is met, the start point of the gap is filled to the cell y_{i-1} . The print out of found gap simultaneously marks the end point of the gap. These remarks can be used when referencing data in further investigations.

Table 3 – An example of the printouts for a point with missing values

Point ID	Emission	Year	Pollutant (ID)	Printout
12121	0.3402	2003	24	First in series (not checked)
12121	0.335016	2004	24	
12121	0.3402	2005	24	
12121	0.335016	2006	24	Start point of a gap
12121	0.276	2009	24	The values for the years 2007-2008 missing
12121	0.21744	2010	24	
12121	0.1052062	2011	24	
12121	0.03562	2012	24	Last in series (not checked)

2.1.9 Results

The method was able to programmatically reveal 518 gaps in series which would contribute to 0.06 % in relation to the count of rows examined. The method does not disclose the reason for the missing value. Many or most of these might be valid gaps due to e.g. stoppage of the plant. The table below presents for selected pollutants the expectable maximum of possible emissions if the gaps would be filled with the value of the closest year. The overall sums are negligible.

Table 4 – Count of found gaps and estimation of the potential maximum of missing emissions in relation the overall emissions

Pollutant	Pollutant ID	Estimate of sum of miss-	Percent in relation to	Count of miss-
As (kg)	8	0.270	0.001 %	17

Cd (kg)	20	0.660	0.004 %	17
CO (t)	24	63.690	0.006 %	28
Cr (kg)	31	4.541	0.001 %	17
Cu (kg)	35	6.689	0.004 %	18
Hg (kg)	47	0.066	0.001 %	17
Ni (kg)	63	25.114	0.009 %	17
Pb (kg)	79	7.496	0.002 %	17
SOx (as SO2) (t)	97	24.012	0.002 %	22
Zn (kg)	112	90.257	0.009 %	18
NOx (as NO2) (t)	314	31.279	0.002 %	28
PCDD/ PCDF (t)	1043	0.003	0.004 %	27
TSP (t)	1047	29.808	0.010 %	30
NMVOG (t)	1064	2.572	0.008 %	28
PAHs (g)	1065	574.868	0.008 %	32
PM10 (t)	1091	10.455	0.006 %	30
PM2.5 (t)	2591	3.817	0.004 %	30

1.4 Interpretation of results

Out of the combined set of nearly two million rows of emission data, 518 meaningful events of discontinuity were observed. In relation to the whole dataset, the time series for the boilers under investigation is 99,97 % complete, and a notable share of the remaining 0,03 % might be explained by valid reasons.

Annex 6

Uncertainty Analysis

Updated March 2025 (TF)

Uncertainty analysis to the 2025 submission, 2022 data

1 Methodology

Changes in chapter	
March 2025	TF

The uncertainty analysis for emission data is carried out following the Approach 1 methodology presented in the EMEP/EEA emission inventory guidebook 2023. The Approach 1 comprise estimation of uncertainties using the error propagation equations, and simple combination of uncertainties by source category to estimate overall uncertainty for one year and the uncertainty in the trend. The uncertainties of the input parameters (activity data and emission factors) are estimated by experts compiling the inventories and those of the measured emissions by the competent authorities that supervise emission monitoring carried out at the individual plants. In the case of emissions reported by the plants, the total uncertainty of the reported emission is determined instead of separate uncertainties for AD and EF. The fuel use uncertainties are the same that Statistics Finland uses in the UC analysis for the Finnish greenhouse gas inventory. The emissions of some pollutants from certain sources are poorly understood, for instance some POP compounds from fuel combustion and industrial processes, and therefore estimation of their uncertainty is found to be very challenging at the moment.

The uncertainty analysis covers all emission sources included in the inventory and represents thus the uncertainty of the reported emission data. The possible lack of completeness of emission sources is, however, not reflected in the uncertainty analysis. Information of the completeness of the inventory is presented in Chapter 1.8.

The uncertainty analysis is carried out at the country-level, i.e. uncertainties in emissions by region are not assessed.

1.1 Uncertainties by pollutants

Changes in chapter	
March 2025	TF

The results of the Approach 1 uncertainty analysis are presented in this section. The results are presented by pollutant and at the bottom of each table information on total emissions and total uncertainty in the inventory are given, both for the level and for the trend.

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NOx	1A1a	Biomass	1.017	7.772	9.8	50.0	50.9	19.228	664.434	1.8
NOx	1A1a	Gaseous	8.859	0.448	9.7	50.0	50.9	0.064	-94.939	0.1
NOx	1A1a	Liquid	3.798	0.791	9.7	50.0	50.9	0.199	-79.174	0.2
NOx	1A1a	Other	0.006	1.512	10.0	50.0	51.0	0.729	25274.645	0.4
NOx	1A1a	Peat	9.791	2.280	6.8	50.0	50.5	1.623	-76.716	0.5
NOx	1A1a	Solid	36.204	1.530	10.0		10.0	0.029	-95.774	0.1
NOx	1A1b	Biomass		0.032	10.0		10.0	0.000	NA	0.0
NOx	1A1b	Gaseous	1.269	0.275	10.0		10.0	0.001	-78.351	0.0
NOx	1A1b	Liquid	2.045	1.274	10.0		10.0	0.020	-37.698	0.1
NOx	1A1b	Solid	0.005	0.001	10.0		10.0	0.000	-71.823	0.0
NOx	1A2a	Biomass		0.003	10.0		10.0	0.000	NA	0.0
NOx	1A2a	Gaseous	0.203	0.871	10.0		10.0	0.009	328.952	0.0
NOx	1A2a	Liquid	0.466	0.062	9.7	50.0	50.9	0.001	-86.773	0.0
NOx	1A2a	Solid	2.398	1.932	10.0		10.0	0.046	-19.417	0.1
NOx	1A2b	Gaseous		0.002	9.4	50.0	50.9	0.000	NA	0.0
NOx	1A2b	Liquid	0.240	0.083	8.0	50.0	50.6	0.002	-65.560	0.0
NOx	1A2b	Solid	0.422	0.018	9.1	50.0	50.8	0.000	-95.764	0.0
NOx	1A2c	Biomass	0.089	0.026	9.9	50.0	51.0	0.000	-70.755	0.0
NOx	1A2c	Gaseous	0.181	0.094	10.0	50.0	51.0	0.003	-47.969	0.0
NOx	1A2c	Liquid	1.137	0.949	9.9	50.0	51.0	0.287	-16.518	0.2
NOx	1A2c	Other	0.152	0.006	10.0		10.0	0.000	-96.329	0.0
NOx	1A2d	Biomass	8.656	10.587	9.7	50.0	50.9	35.657	22.306	2.5
NOx	1A2d	Gaseous	3.395	0.481	9.3	50.0	50.9	0.073	-85.829	0.1
NOx	1A2d	Liquid	2.136	0.740	9.8	50.0	50.9	0.175	-65.338	0.2
NOx	1A2d	Other	0.044	0.335	10.0	50.0	51.0	0.036	660.202	0.1
NOx	1A2d	Peat	1.476	0.262	10.0		10.0	0.001	-82.267	0.0
NOx	1A2d	Solid	2.455	0.010	10.0		10.0	0.000	-99.576	0.0
NOx	1A2e	Biomass	0.033	0.094	9.0	50.0	50.8	0.003	187.070	0.0
NOx	1A2e	Gaseous	0.088	0.031	6.8	50.0	50.5	0.000	-64.764	0.0
NOx	1A2e	Liquid	0.662	0.045	6.7	50.0	50.4	0.001	-93.280	0.0
NOx	1A2e	Peat	0.165	0.146	10.0	50.0	51.0	0.007	-11.617	0.0
NOx	1A2e	Solid	0.247	0.033	10.0		10.0	0.000	-86.818	0.0
NOx	1A2f	Biomass	0.000	0.011	7.2	50.0	50.5	0.000	4719.496	0.0
NOx	1A2f	Gaseous	0.261	0.086	9.8	50.0	51.0	0.002	-67.096	0.0
NOx	1A2f	Liquid	0.665	0.844	9.5	50.0	50.9	0.226	26.980	0.2
NOx	1A2f	Other	0.580	0.356	10.0		10.0	0.002	-38.610	0.0
NOx	1A2f	Solid	3.724	0.263	10.0		10.0	0.001	-92.942	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NOx	1A2gvii	Liquid	12.650	4.166	4.9	50.0	50.2	5.372	-67.071	1.0
NOx	1A2gviii	Biomass	0.862	1.108	7.8	50.0	50.6	0.386	28.484	0.3
NOx	1A2gviii	Gaseous	0.075	0.150	4.8	50.0	50.2	0.007	98.935	0.0
NOx	1A2gviii	Liquid	1.266	0.314	6.5	50.0	50.4	0.031	-75.232	0.1
NOx	1A2gviii	Other	0.148	0.620	10.0		10.0	0.005	319.636	0.0
NOx	1A2gviii	Peat	0.046	0.056	10.0	50.0	51.0	0.001	21.642	0.0
NOx	1A3ai(i)	Liquid	0.251	0.659	5.0	50.0	50.2	0.134	162.545	0.2
NOx	1A3aii(i)	Liquid	0.311	0.121	5.0	50.0	50.2	0.005	-61.070	0.0
NOx	1A3bi	Diesel oil	6.783	6.068	1.0	50.0	50.0	11.295	-10.541	1.4
NOx	1A3bi	Gaseous		0.004	3.0	50.0	50.1	0.000	NA	0.0
NOx	1A3bi	Gasoline	62.636	1.399	2.0	50.0	50.0	0.601	-97.767	0.3
NOx	1A3bii	Diesel oil	4.439	4.873	1.0	50.0	50.0	7.283	9.776	1.1
NOx	1A3bii	Gaseous		0.001	3.0	50.0	50.1	0.000	NA	0.0
NOx	1A3bii	Gasoline	1.532	0.039	2.0	50.0	50.0	0.000	-97.422	0.0
NOx	1A3biii	Diesel oil	58.866	4.997	1.0	50.0	50.0	7.659	-91.511	1.2
NOx	1A3biii	Gaseous		0.041	3.0	50.0	50.1	0.001	NA	0.0
NOx	1A3biv	Diesel oil		0.022	1.0	50.0	50.0	0.000	NA	0.0
NOx	1A3biv	Gasoline	0.065	0.113	2.0	50.0	50.0	0.004	72.482	0.0
NOx	1A3c	Liquid	4.212	1.237	2.0	50.0	50.0	0.470	-70.624	0.3
NOx	1A3dii	Liquid	9.130	4.423	9.4	50.0	50.9	6.210	-51.560	1.0
NOx	1A3ei	Gaseous	0.009	0.000	9.5	50.0	50.9	0.000	-99.768	0.0
NOx	1A4ai	Biomass	0.156	0.261	20.0	50.0	53.8	0.024	67.394	0.1
NOx	1A4ai	Gaseous	0.043	0.029	9.9	50.0	51.0	0.000	-31.954	0.0
NOx	1A4ai	Liquid	2.314	0.844	12.8	50.0	51.6	0.233	-63.527	0.2
NOx	1A4ai	Peat	0.015	0.013	15.0	50.0	52.2	0.000	-15.585	0.0
NOx	1A4aii	Liquid	5.216	0.908	12.8	50.0	51.6	0.269	-82.596	0.2
NOx	1A4bi	Biomass	3.303	3.775	20.0	50.0	53.9	5.067	14.272	0.9
NOx	1A4bi	Gaseous	0.030	0.018	10.0	50.0	51.0	0.000	-40.694	0.0
NOx	1A4bi	Liquid	3.114	0.249	14.2	50.0	52.0	0.021	-91.999	0.1
NOx	1A4bi	Other	0.003	0.000	10.0	50.0	51.0	0.000	-97.674	0.0
NOx	1A4bi	Peat	0.065	0.004	15.0	50.0	52.2	0.000	-94.000	0.0
NOx	1A4bii	Liquid	0.396	0.900	11.3	50.0	51.3	0.261	127.349	0.2
NOx	1A4ci	Biomass	0.520	0.512	19.9	50.0	53.8	0.093	-1.626	0.1
NOx	1A4ci	Gaseous	0.056	0.003	10.0	50.0	51.0	0.000	-94.311	0.0
NOx	1A4ci	Liquid	0.744	0.277	14.1	50.0	51.9	0.025	-62.723	0.1
NOx	1A4ci	Peat	0.040	0.114	9.9	50.0	51.0	0.004	185.986	0.0
NOx	1A4ci	Solid	0.024	0.011	20.0	50.0	53.9	0.000	-53.172	0.0

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NOx	1A4cii	Liquid	12.825	1.744	14.6	50.0	52.1	1.011	-86.405	0.4
NOx	1A4ciii	Liquid	3.580	1.652	15.0	50.0	52.2	0.912	-53.844	0.4
NOx	1A5a	Biomass	0.032	2.742	10.0	50.0	51.0	2.397	8453.563	0.6
NOx	1A5a	Gaseous	0.116	0.366	15.7	50.0	52.4	0.045	216.015	0.1
NOx	1A5a	Liquid	2.178	1.636	12.9	50.0	51.6	0.875	-24.875	0.4
NOx	2B10a		0.061	0.108	28.9		28.9	0.001	76.270	0.0
NOx	2B2		0.744	0.181	20.0		20.0	0.002	-75.620	0.0
NOx	2G		0.016	0.008	35.0	100.0	105.9	0.000	-51.777	0.0
NOx	3B1a		0.166	0.036	3.0	200.0	200.0	0.006	-78.454	0.0
NOx	3B1b		0.157	0.193	3.0	200.0	200.0	0.183	22.524	0.2
NOx	3B2		0.006	0.008	5.0	200.0	200.1	0.000	27.776	0.0
NOx	3B3		0.074	0.006	5.0	200.0	200.1	0.000	-91.674	0.0
NOx	3B4d		0.000	0.000	5.0	200.0	200.1	0.000	0.984	0.0
NOx	3B4e		0.011	0.018	5.0	200.0	200.1	0.002	71.704	0.0
NOx	3B4gi		0.052	0.043	5.0	200.0	200.1	0.009	-18.164	0.0
NOx	3B4gii		0.027	0.093	5.0	200.0	200.1	0.043	244.046	0.1
NOx	3B4giii		0.001	0.009	5.0	200.0	200.1	0.000	663.088	0.0
NOx	3B4giv		0.007	0.004	5.0	200.0	200.1	0.000	-49.202	0.0
NOx	3B4h		0.042	0.021	5.0	200.0	200.1	0.002	-50.664	0.0
NOx	3Da1		9.143	5.640	10.0	100.0	100.5	39.398	-38.318	2.6
NOx	3Da2a		3.142	2.410	45.0	200.0	205.0	29.944	-23.282	2.3
NOx	3Da2b		0.063	0.108	30.0	200.0	202.2	0.058	70.096	0.1
NOx	3Da2c		0.103	0.251	45.0	160.0	166.2	0.213	142.673	0.2
NOx	3Da3		0.785	0.412	45.0	200.0	205.0	0.873	-47.554	0.4
Total			306.578	90.300			13.4		-70.546	5.6

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NMVOC	1A1a	Biomass	0.109	1.353	5.9	80.0	80.2	2.240	1141.279	0.7
NMVOC	1A1a	Gaseous	0.042	0.023	25.0	80.0	83.8	0.001	-44.695	0.0
NMVOC	1A1a	Liquid	0.027	0.014	15.2	80.0	81.4	0.000	-47.917	0.0
NMVOC	1A1a	Other	0.001	0.256	16.5	80.0	81.7	0.083	24726.407	0.1
NMVOC	1A1a	Peat	0.199	0.137	3.0	80.0	80.1	0.023	-31.249	0.1
NMVOC	1A1a	Solid	0.117	0.055	15.7	80.0	81.5	0.004	-53.562	0.0
NMVOC	1A1b	Biomass		0.001	10.0	80.0	80.6	0.000	NA	0.0
NMVOC	1A1b	Gaseous	0.007	0.013	22.2	80.0	83.0	0.000	93.448	0.0
NMVOC	1A1b	Liquid	0.005	0.049	13.2	80.0	81.1	0.003	912.298	0.0
NMVOC	1A1b	Solid		0.000	3.0	80.0	80.1	0.000	NA	0.0
NMVOC	1A2a	Biomass		0.001	10.0	80.0	80.6	0.000	NA	0.0
NMVOC	1A2a	Gaseous	0.111	0.004	2.0	80.0	80.0	0.000	-96.611	0.0
NMVOC	1A2a	Liquid	0.003	0.000	4.6	80.0	80.1	0.000	-97.560	0.0
NMVOC	1A2a	Solid	0.017	0.010	2.2	80.0	80.0	0.000	-39.981	0.0
NMVOC	1A2b	Gaseous		0.000	4.9	80.0	80.1	0.000	NA	0.0
NMVOC	1A2b	Liquid	0.001	0.001	3.6	80.0	80.1	0.000	-24.458	0.0
NMVOC	1A2b	Solid	0.000	0.000	4.8	80.0	80.1	0.000	-50.047	0.0
NMVOC	1A2c	Biomass	0.002	0.001	9.8	80.0	80.6	0.000	-69.659	0.0
NMVOC	1A2c	Gaseous	0.002	0.008	5.0	80.0	80.2	0.000	390.010	0.0
NMVOC	1A2c	Liquid	0.004	0.002	3.6	80.0	80.1	0.000	-52.801	0.0
NMVOC	1A2c	Other	0.003	0.000	10.0	80.0	80.6	0.000	-97.715	0.0
NMVOC	1A2d	Biomass	0.430	0.339	1.8	80.0	80.0	0.140	-21.054	0.2
NMVOC	1A2d	Gaseous	0.077	0.008	2.0	80.0	80.0	0.000	-89.373	0.0
NMVOC	1A2d	Liquid	0.174	0.006	1.8	80.0	80.0	0.000	-96.330	0.0
NMVOC	1A2d	Other	0.000	0.021	10.0	80.0	80.6	0.001	7539.474	0.0
NMVOC	1A2d	Peat	0.018	0.006	2.0	80.0	80.0	0.000	-64.775	0.0
NMVOC	1A2d	Solid	0.038	0.000	5.0	80.0	80.2	0.000	-99.165	0.0
NMVOC	1A2e	Biomass	0.007	0.010	8.5	80.0	80.4	0.000	33.243	0.0
NMVOC	1A2e	Gaseous	0.001	0.001	2.9	80.0	80.1	0.000	-41.262	0.0
NMVOC	1A2e	Liquid	0.005	0.001	3.1	80.0	80.1	0.000	-89.021	0.0
NMVOC	1A2e	Peat	0.012	0.004	5.0	80.0	80.2	0.000	-64.049	0.0
NMVOC	1A2e	Solid	0.007	0.001	4.7	80.0	80.1	0.000	-84.905	0.0
NMVOC	1A2f	Biomass	0.000	0.004	7.3	80.0	80.3	0.000	116190.264	0.0
NMVOC	1A2f	Gaseous	0.003	0.001	3.0	80.0	80.1	0.000	-80.423	0.0
NMVOC	1A2f	Liquid	0.005	0.002	2.8	80.0	80.0	0.000	-57.678	0.0
NMVOC	1A2f	Other		0.007	10.0	80.0	80.6	0.000	NA	0.0
NMVOC	1A2f	Solid	0.009	0.002	2.9	80.0	80.1	0.000	-82.817	0.0

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NMVOC	1A2gvii	Liquid	2.366	0.907	4.9	80.0	80.2	1.005	-61.668	0.4
NMVOC	1A2gviii	Biomass	0.199	0.143	8.5	80.0	80.5	0.025	-28.403	0.1
NMVOC	1A2gviii	Gaseous	0.002	0.019	27.8	80.0	84.7	0.001	891.380	0.0
NMVOC	1A2gviii	Liquid	0.017	0.008	18.3	80.0	82.1	0.000	-54.497	0.0
NMVOC	1A2gviii	Other	0.011	0.033	9.6	80.0	80.6	0.001	193.106	0.0
NMVOC	1A2gviii	Peat	0.002	0.002	9.5	80.0	80.6	0.000	-6.120	0.0
NMVOC	1A3ai(i)	Liquid	0.056	0.058	5.0	80.0	80.2	0.004	4.719	0.0
NMVOC	1A3aii(i)	Liquid	0.056	0.014	5.0	80.0	80.2	0.000	-74.250	0.0
NMVOC	1A3bi	Diesel oil	1.332	0.060	1.0	80.0	80.0	0.004	-95.465	0.0
NMVOC	1A3bi	Gaseous		0.001	3.0	80.0	80.1	0.000	NA	0.0
NMVOC	1A3bi	Gasoline	49.364	0.765	2.0	80.0	80.0	0.713	-98.450	0.4
NMVOC	1A3bii	Diesel oil	0.796	0.152	1.0	80.0	80.0	0.028	-80.933	0.1
NMVOC	1A3bii	Gaseous		0.000	3.0	80.0	80.1	0.000	NA	0.0
NMVOC	1A3bii	Gasoline	1.669	0.012	2.0	80.0	80.0	0.000	-99.253	0.0
NMVOC	1A3biii	Diesel oil	7.843	0.133	1.0	80.0	80.0	0.022	-98.299	0.1
NMVOC	1A3biii	Gaseous		0.003	3.0	80.0	80.1	0.000	NA	0.0
NMVOC	1A3biv	Diesel oil		0.021	1.0	80.0	80.0	0.001	NA	0.0
NMVOC	1A3biv	Gasoline	2.767	0.656	2.0	80.0	80.0	0.525	-76.272	0.3
NMVOC	1A3bv		13.655	1.060	1.0	200.0	200.0	8.549	-92.237	1.3
NMVOC	1A3c	Liquid	0.234	0.071	2.0	80.0	80.0	0.006	-69.682	0.0
NMVOC	1A3dii	Liquid	9.646	2.762	9.4	80.0	80.6	9.412	-71.371	1.3
NMVOC	1A3ei	Gaseous	0.000	0.000	20.0	80.0	82.5	0.000	-98.114	0.0
NMVOC	1A4ai	Biomass	0.007	0.010	20.0	80.0	82.5	0.000	40.083	0.0
NMVOC	1A4ai	Gaseous	0.003	0.003	10.0	80.0	80.6	0.000	-12.193	0.0
NMVOC	1A4ai	Liquid	0.125	0.052	13.0	80.0	81.0	0.003	-58.545	0.0
NMVOC	1A4ai	Peat	0.016	0.017	15.0	80.0	81.4	0.000	6.213	0.0
NMVOC	1A4aii	Liquid	6.267	0.394	12.8	80.0	81.0	0.194	-93.708	0.2
NMVOC	1A4bi	Biomass	17.720	18.338	20.0	80.0	82.5	434.934	3.491	9.1
NMVOC	1A4bi	Gaseous	0.003	0.002	10.0	80.0	80.6	0.000	-40.694	0.0
NMVOC	1A4bi	Liquid	0.195	0.016	14.2	80.0	81.3	0.000	-91.827	0.0
NMVOC	1A4bi	Other	0.000	0.000	10.0	80.0	80.6	0.000	-97.674	0.0
NMVOC	1A4bi	Peat	0.130	0.008	15.0	80.0	81.4	0.000	-94.000	0.0
NMVOC	1A4bii	Liquid	6.597	1.927	11.3	80.0	80.8	4.611	-70.788	0.9
NMVOC	1A4ci	Biomass	0.020	0.024	20.0	80.0	82.5	0.001	20.681	0.0
NMVOC	1A4ci	Gaseous	0.002	0.000	10.0	80.0	80.6	0.000	-83.458	0.0
NMVOC	1A4ci	Liquid	0.044	0.018	14.1	80.0	81.2	0.000	-59.746	0.0
NMVOC	1A4ci	Peat	0.080	0.224	10.0	80.0	80.6	0.062	179.757	0.1

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NMVOC	1A4ci	Solid	0.001	0.000	20.0	80.0	82.5	0.000	-53.225	0.0
NMVOC	1A4cii	Liquid	6.642	1.082	14.6	80.0	81.3	1.472	-83.715	0.5
NMVOC	1A4ciii	Liquid	0.144	0.078	15.0	80.0	81.4	0.008	-45.498	0.0
NMVOC	1A5a	Biomass	0.014	0.274	10.0	80.0	80.6	0.093	1887.269	0.1
NMVOC	1A5a	Gaseous	0.012	0.037	15.7	80.0	81.5	0.002	218.563	0.0
NMVOC	1A5a	Liquid	0.140	0.118	12.9	80.0	81.0	0.017	-15.694	0.1
NMVOC	1B1b		0.037	0.062	10.0	900.0	900.1	0.601	66.577	0.3
NMVOC	1B2aiv		6.600	1.762	100.0		100.0	5.904	-73.305	1.1
NMVOC	1B2av		7.411	2.523	19.7	100.0	101.9	12.575	-65.958	1.5
NMVOC	1B2b		0.229	0.126	10.0	100.0	100.5	0.031	-44.951	0.1
NMVOC	2A1		0.054	0.027	50.8		50.8	0.000	-49.946	0.0
NMVOC	2A3		0.001	0.008	99.9	80.0	128.0	0.000	454.403	0.0
NMVOC	2B10a		7.836	2.129	100.0		100.0	8.618	-72.834	1.3
NMVOC	2B10b		0.134	0.033	91.8		91.8	0.002	-75.212	0.0
NMVOC	2C1		0.796	0.183	100.0		100.0	0.064	-76.957	0.1
NMVOC	2C2			0.001	100.0		100.0	0.000	NA	0.0
NMVOC	2C3		0.022	0.002	100.0		100.0	0.000	-91.991	0.0
NMVOC	2C7a			0.001	200.0		200.0	0.000	NA	0.0
NMVOC	2C7b		0.010	0.018	100.0		100.0	0.001	80.000	0.0
NMVOC	2C7c		0.025	0.005	100.0		100.0	0.000	-78.896	0.0
NMVOC	2D3a		3.065	6.633	40.0	108.0	115.2	110.990	116.412	4.6
NMVOC	2D3b		0.900	0.174	30.0	80.0	85.4	0.042	-80.637	0.1
NMVOC	2D3c		6.260	0.039	30.0	80.0	85.4	0.002	-99.381	0.0
NMVOC	2D3d		27.500	4.284	59.6	200.0	208.7	152.038	-84.421	5.4
NMVOC	2D3e		2.638	0.581	19.6	200.0	201.0	2.596	-77.964	0.7
NMVOC	2D3g		3.956	1.336	84.8	200.0	217.2	16.023	-66.221	1.7
NMVOC	2D3h		8.800	0.264	78.3	200.0	214.8	0.610	-97.005	0.3
NMVOC	2D3i		2.085	1.289	37.8	200.0	203.5	13.088	-38.199	1.6
NMVOC	2G		0.043	0.020	35.0	100.0	105.9	0.001	-53.646	0.0
NMVOC	2H1		2.966	1.044	15.9	80.0	81.6	1.380	-64.789	0.5
NMVOC	2H2		2.523	1.812	29.3	900.0	900.5	506.515	-28.174	9.8
NMVOC	2I		1.070	1.049	38.8	80.0	88.9	1.654	-1.983	0.6
NMVOC	2L		0.013	0.022	100.0		100.0	0.001	70.584	0.0
NMVOC	3B1a		6.851	5.883	3.0	200.0	200.0	263.374	-14.134	7.1
NMVOC	3B1b		4.004	3.925	3.0	200.0	200.0	117.234	-1.969	4.7
NMVOC	3B2		0.110	0.127	5.0	200.0	200.1	0.123	15.486	0.2
NMVOC	3B3		0.423	0.241	5.0	200.0	200.1	0.444	-42.912	0.3

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NMVOC	3B4d		0.004	0.004	5.0	200.0	200.1	0.000	9.570	0.0
NMVOC	3B4e		0.161	0.232	5.0	200.0	200.1	0.410	44.577	0.3
NMVOC	3B4gi		0.219	0.260	5.0	200.0	200.1	0.515	18.878	0.3
NMVOC	3B4gii		0.259	0.789	5.0	200.0	200.1	4.744	204.673	1.0
NMVOC	3B4giii		0.006	0.030	5.0	200.0	200.1	0.007	363.699	0.0
NMVOC	3B4giv		0.033	0.018	5.0	200.0	200.1	0.002	-46.127	0.0
NMVOC	3B4h		1.028	0.453	5.0	200.0	200.1	1.563	-55.938	0.5
NMVOC	3Da2a		3.886	2.264	45.0	200.0	205.0	40.957	-41.747	2.8
NMVOC	3Da3		0.099	0.046	45.0	200.0	205.0	0.017	-53.443	0.1
NMVOC	3De		1.062	0.881	30.0	100.0	104.4	1.607	-17.050	0.6
NMVOC	5A		0.234	0.064	15.0	200.0	200.6	0.031	-72.644	0.1
NMVOC	5D1		0.003	0.008	10.0	200.0	200.2	0.001	153.758	0.0
NMVOC	5D2		0.022	0.013	10.0	200.0	200.2	0.001	-38.098	0.0
Total			235.049	72.510			41.6		-69.151	18.1

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
SOx	1A1a	Biomass	0.587	0.754	9.0	40.0	41.0	2.268	28.529	0.2
SOx	1A1a	Gaseous	0.002	0.002	6.3	20.0	21.0	0.000	-17.368	0.0
SOx	1A1a	Liquid	16.678	0.276	6.2	20.0	20.9	0.079	-98.345	0.0
SOx	1A1a	Other	0.027	0.118	9.8	40.0	41.2	0.056	340.567	0.0
SOx	1A1a	Peat	8.877	1.560	6.7	40.0	40.6	9.487	-82.429	0.4
SOx	1A1a	Solid	50.545	3.404	10.0		10.0	2.747	-93.266	0.2
SOx	1A1b	Biomass		0.000	10.0		10.0	0.000	NA	0.0
SOx	1A1b	Gaseous	0.001	2.322	10.0	20.0	22.4	6.395	223212.340	0.3
SOx	1A1b	Liquid	21.319	0.208	9.9	20.0	22.3	0.051	-99.024	0.0
SOx	1A1b	Solid	0.467	0.000	10.0		10.0	0.000	-99.995	0.0
SOx	1A2a	Biomass		0.000	10.0		10.0	0.000	NA	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
SOx	1A2a	Gaseous	0.000	0.001	8.6	20.0	21.8	0.000	875.671	0.0
SOx	1A2a	Liquid	1.958	0.005	9.9	20.0	22.3	0.000	-99.759	0.0
SOx	1A2a	Solid	7.266	0.530	9.6	40.0	41.1	1.128	-92.704	0.1
SOx	1A2b	Gaseous		0.000	9.8	20.0	22.3	0.000	NA	0.0
SOx	1A2b	Liquid	4.045	0.843	9.8	20.0	22.3	0.838	-79.152	0.1
SOx	1A2b	Solid	4.034	1.128	10.0		10.0	0.302	-72.043	0.1
SOx	1A2c	Biomass	0.240	0.005	9.9	40.0	41.2	0.000	-98.021	0.0
SOx	1A2c	Gaseous	0.000	0.000	9.0	20.0	21.9	0.000	293.508	0.0
SOx	1A2c	Liquid	4.948	0.505	9.8	20.0	22.3	0.300	-89.801	0.1
SOx	1A2c	Other	0.044	0.004	9.9	40.0	41.2	0.000	-90.463	0.0
SOx	1A2d	Biomass	6.427	1.009	4.9	40.0	40.3	3.923	-84.293	0.2
SOx	1A2d	Gaseous	0.201	0.000	2.4	20.0	20.1	0.000	-99.865	0.0
SOx	1A2d	Liquid	19.440	0.401	9.7	20.0	22.2	0.189	-97.936	0.1
SOx	1A2d	Other	0.390	0.044	8.1	40.0	40.8	0.008	-88.696	0.0
SOx	1A2d	Peat	5.876	0.088	10.0		10.0	0.002	-98.506	0.0
SOx	1A2d	Solid	6.141	0.008	10.0		10.0	0.000	-99.871	0.0
SOx	1A2e	Biomass	0.031	0.035	8.8	40.0	41.0	0.005	15.023	0.0
SOx	1A2e	Gaseous	0.000	0.000	2.9	20.0	20.2	0.000	-83.941	0.0
SOx	1A2e	Liquid	3.245	0.037	3.9	20.0	20.4	0.001	-98.859	0.0
SOx	1A2e	Peat	0.230	0.109	10.0	40.0	41.2	0.048	-52.837	0.0
SOx	1A2e	Solid	0.783	0.081	10.0		10.0	0.002	-89.609	0.0
SOx	1A2f	Biomass	0.000	0.002	7.4	40.0	40.7	0.000	2313.963	0.0
SOx	1A2f	Gaseous	0.064	0.005	9.9	20.0	22.3	0.000	-91.758	0.0
SOx	1A2f	Liquid	1.827	0.183	8.9	20.0	21.9	0.038	-89.979	0.0
SOx	1A2f	Other	0.033	0.009	10.0		10.0	0.000	-72.432	0.0
SOx	1A2f	Solid	1.111	0.177	10.0		10.0	0.007	-84.032	0.0
SOx	1A2gvii	Liquid	1.003	0.004	4.9	50.0	50.2	0.000	-99.568	0.0
SOx	1A2gviii	Biomass	0.349	0.280	7.5	40.0	40.7	0.307	-19.928	0.1
SOx	1A2gviii	Gaseous	0.000	0.007	4.8	20.0	20.6	0.000	21457.210	0.0
SOx	1A2gviii	Liquid	4.935	0.083	3.5	20.0	20.3	0.007	-98.322	0.0
SOx	1A2gviii	Other	0.307	0.029	10.0		10.0	0.000	-90.458	0.0
SOx	1A2gviii	Peat	0.019	0.017	10.0	40.0	41.2	0.001	-9.214	0.0
SOx	1A3ai(i)	Liquid	0.021	0.040	5.0	50.0	50.2	0.009	87.116	0.0
SOx	1A3ai(i)	Liquid	0.021	0.008	5.0	50.0	50.2	0.000	-60.292	0.0
SOx	1A3bi	Diesel oil	0.909	0.006	1.0	50.0	50.0	0.000	-99.335	0.0
SOx	1A3bi	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
SOx	1A3bi	Gasoline	0.860	0.016	2.0	50.0	50.0	0.001	-98.185	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
SOx	1A3bii	Diesel oil	0.705	0.003	1.0	50.0	50.0	0.000	-99.636	0.0
SOx	1A3bii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
SOx	1A3bii	Gasoline	0.032	0.000	2.0	50.0	50.0	0.000	-99.842	0.0
SOx	1A3biii	Diesel oil	2.738	0.014	1.0	50.0	50.0	0.001	-99.503	0.0
SOx	1A3biii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
SOx	1A3biv	Diesel oil		0.000	1.0	50.0	50.0	0.000	NA	0.0
SOx	1A3biv	Gasoline	0.007	0.000	2.0	50.0	50.0	0.000	-92.960	0.0
SOx	1A3c	Liquid	0.438	0.000	2.0	50.0	50.0	0.000	-99.950	0.0
SOx	1A3dii	Liquid	1.650	0.042	9.4	50.0	50.9	0.011	-97.464	0.0
SOx	1A3ei	Gaseous	0.000	0.000	20.0	50.0	53.9	0.000	-98.114	0.0
SOx	1A4ai	Biomass	0.010	0.016	20.0	40.0	44.7	0.001	62.480	0.0
SOx	1A4ai	Gaseous	0.000	0.000	10.0	20.0	22.4	0.000	-16.078	0.0
SOx	1A4ai	Liquid	10.103	1.047	13.0	20.0	23.9	1.479	-89.637	0.1
SOx	1A4ai	Peat	0.016	0.018	15.0	40.0	42.7	0.001	12.270	0.0
SOx	1A4aii	Liquid	0.409	0.001	12.8	50.0	51.6	0.000	-99.724	0.0
SOx	1A4bi	Biomass	0.206	0.236	20.0	40.0	44.7	0.264	14.272	0.1
SOx	1A4bi	Gaseous	0.000	0.000	10.0	20.0	22.4	0.000	-29.842	0.0
SOx	1A4bi	Liquid	4.226	0.129	14.2	20.0	24.5	0.024	-96.955	0.0
SOx	1A4bi	Other	0.000	0.000	10.0	40.0	41.2	0.000	-97.674	0.0
SOx	1A4bi	Peat	0.117	0.007	15.0	40.0	42.7	0.000	-94.000	0.0
SOx	1A4bii	Liquid	0.032	0.001	11.3	50.0	51.3	0.000	-97.763	0.0
SOx	1A4ci	Biomass	0.033	0.036	19.5	40.0	44.5	0.006	9.664	0.0
SOx	1A4ci	Gaseous	0.000	0.000	10.0	20.0	22.4	0.000	-89.191	0.0
SOx	1A4ci	Liquid	3.231	0.163	14.1	20.0	24.5	0.038	-94.970	0.0
SOx	1A4ci	Peat	0.072	0.203	10.0	40.0	41.2	0.167	182.614	0.0
SOx	1A4ci	Solid	0.093	0.041	20.0	40.0	44.7	0.008	-55.375	0.0
SOx	1A4cii	Liquid	0.986	0.003	14.6	50.0	52.1	0.000	-99.718	0.0
SOx	1A4ciii	Liquid	0.195	0.000	15.0	50.0	52.2	0.000	-99.801	0.0
SOx	1A5a	Biomass	0.008	0.548	10.0	40.0	41.2	1.212	6553.337	0.1
SOx	1A5a	Gaseous	0.000	0.093	15.7	20.0	25.5	0.013	100402.949	0.0
SOx	1A5a	Liquid	5.958	0.340	12.9	20.0	23.8	0.155	-94.294	0.0
SOx	1B1b		0.795	0.800	15.0		15.0	0.341	0.629	0.1
SOx	2B10a		13.894	0.804	14.8		14.8	0.337	-94.214	0.1
SOx	2C1		2.867	0.947	15.0		15.0	0.479	-66.968	0.1
SOx	2C2			0.001	15.0		15.0	0.000	NA	0.0
SOx	2C7a		0.000	0.111	29.5		29.5	0.025	55305.493	0.0
SOx	2C7b		0.004	0.028	15.0		15.0	0.000	650.000	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
SOx	2C7c		0.001	0.000	15.0		15.0	0.000	-94.091	0.0
SOx	2D3g		0.002	0.000	15.0		15.0	0.000	-99.070	0.0
SOx	2D3i		0.089	0.000	15.0		15.0	0.000	-99.660	0.0
SOx	2G		0.001	0.004	35.0	49.0	60.2	0.000	239.262	0.0
SOx	2H1		23.466	0.552	15.0		15.0	0.162	-97.649	0.0
SOx	2L			0.004	15.0		15.0	0.000	NA	0.0
Total			248.820	20.536			5.7		-91.747	0.7

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NH3	1A1a		0.001	0.087	30.0		30.0	0.007	8572.400	0.1
NH3	1A2gvii	Liquid	0.002	0.003	4.9	80.0	80.2	0.000	22.756	0.0
NH3	1A2gviii			0.012	30.0		30.0	0.000	NA	0.0
NH3	1A3bi	Diesel oil	0.005	0.050	1.0	80.0	80.0	0.018	863.244	0.2
NH3	1A3bi	Gaseous		0.004	3.0	80.0	80.1	0.000	NA	0.0
NH3	1A3bi	Gasoline	0.227	0.503	2.0	80.0	80.0	1.784	122.016	1.6
NH3	1A3bii	Diesel oil	0.003	0.022	1.0	80.0	80.0	0.003	663.120	0.1
NH3	1A3bii	Gaseous		0.000	3.0	80.0	80.1	0.000	NA	0.0
NH3	1A3bii	Gasoline	0.002	0.001	2.0	80.0	80.0	0.000	-19.761	0.0
NH3	1A3biii	Diesel oil	0.010	0.029	1.0	80.0	80.0	0.006	183.339	0.1
NH3	1A3biii	Gaseous		0.000	3.0	80.0	80.1	0.000	NA	0.0
NH3	1A3biv	Diesel oil		0.000	1.0	80.0	80.0	0.000	NA	0.0
NH3	1A3biv	Gasoline	0.001	0.002	2.0	80.0	80.0	0.000	160.175	0.0
NH3	1A3c	Liquid	0.000	0.000	2.0	80.0	80.0	0.000	-69.541	0.0
NH3	1A3dii	Liquid	0.001	0.001	9.4	80.0	80.6	0.000	-23.877	0.0
NH3	1A4ai	Biomass	0.003	0.005	20.0	80.0	82.5	0.000	67.756	0.0
NH3	1A4aii	Liquid	0.001	0.001	12.8	80.0	81.0	0.000	-31.905	0.0
NH3	1A4bi	Biomass	0.907	1.010	20.0	80.0	82.5	7.622	11.333	3.3

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
NH3	1A4bii	Liquid	0.000	0.000	11.3	80.0	80.8	0.000	49.466	0.0
NH3	1A4ci	Biomass	0.011	0.011	20.0	80.0	82.5	0.001	-4.477	0.0
NH3	1A4cii	Liquid	0.002	0.002	14.6	80.0	81.3	0.000	-20.784	0.0
NH3	1A4ciii	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-41.984	0.0
NH3	1A5a	Liquid	0.000	0.000	30.0	80.0	85.4	0.000	16.414	0.0
NH3	1B1b		0.002	0.003	10.0	170.0	170.3	0.000	66.577	0.0
NH3	2B10a		0.582	0.204	100.0		100.0	0.458	-64.912	0.8
NH3	2C1		0.003	0.037	100.0		100.0	0.015	1133.333	0.1
NH3	2C7b		0.100	0.009	100.0		100.0	0.001	-91.000	0.0
NH3	2C7c		0.000	0.000	100.0		100.0	0.000	102.400	0.0
NH3	2D3e		0.061	0.004	200.0		200.0	0.001	-93.262	0.0
NH3	2D3g		0.024	0.002	44.4	100.0	109.4	0.000	-90.266	0.0
NH3	2D3i		0.097	0.128	100.0		100.0	0.181	32.436	0.5
NH3	2G		0.037	0.017	35.0	6.0	35.5	0.000	-53.646	0.0
NH3	2H1		0.560	0.155	100.0		100.0	0.263	-72.384	0.6
NH3	2L		0.020	0.017	100.0		100.0	0.003	-17.142	0.1
NH3	3B1a		5.709	5.331	3.0	186.0	186.0	1081.321	-6.611	39.1
NH3	3B1b		5.208	4.989	3.0	186.0	186.0	946.833	-4.216	36.6
NH3	3B2		0.070	0.085	5.0	186.0	186.1	0.274	22.050	0.6
NH3	3B3		4.182	1.646	5.0	186.0	186.1	103.075	-60.647	12.1
NH3	3B4d		0.006	0.005	5.0	186.0	186.1	0.001	-3.541	0.0
NH3	3B4e		0.254	0.410	5.0	186.0	186.1	6.394	61.510	3.0
NH3	3B4gi		0.535	0.263	5.0	186.0	186.1	2.640	-50.774	1.9
NH3	3B4gii		0.204	0.621	5.0	186.0	186.1	14.660	204.504	4.6
NH3	3B4giii		0.013	0.084	5.0	186.0	186.1	0.269	559.950	0.6
NH3	3B4giv		0.104	0.026	5.0	186.0	186.1	0.027	-74.497	0.2
NH3	3B4h		1.873	0.931	5.0	186.0	186.1	33.010	-50.280	6.8
NH3	3Da1		6.311	3.443	10.0	40.0	41.2	22.159	-45.436	5.6
NH3	3Da2a		11.254	6.897	45.0	186.0	191.4	1914.879	-38.719	52.0
NH3	3Da2b		0.043	0.074	30.0	100.0	104.4	0.065	70.095	0.3
NH3	3Da2c		0.166	0.402	45.0	100.0	109.7	2.133	142.673	1.7
NH3	3Da3		1.728	0.982	45.0	186.0	191.4	38.786	-43.190	7.4
NH3	3Da4		0.200	0.404	45.0	100.0	109.7	2.157	102.368	1.7
NH3	5B1		0.035	0.073	25.0	192.0	193.6	0.222	109.605	0.6
NH3	5B2		0.003	0.191	10.0	75.0	75.7	0.230	6961.968	0.6
NH3	5D1		0.275	0.379	99.2	100.0	140.9	3.136	37.733	2.1
NH3	6A		0.380	0.603	10.0	54.0	54.9	1.206	58.727	1.3

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			35.872	30.160			64.7		-15.924	76.9

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM2.5	1A1a	Biomass	0.265	0.071	4.8	160.0	160.1	0.749	-73.261	0.3
PM2.5	1A1a	Liquid	0.704	0.019	2.2	100.0	100.0	0.020	-97.365	0.1
PM2.5	1A1a	Other	0.001	0.001	10.0	160.0	160.3	0.000	156.600	0.0
PM2.5	1A1a	Peat	0.467	0.043	2.0	120.0	120.0	0.155	-90.795	0.2
PM2.5	1A1a	Solid	1.103	0.039	1.0	160.0	160.0	0.224	-96.488	0.2
PM2.5	1A1b	Liquid	0.096	0.013	5.0	100.0	100.1	0.010	-86.189	0.0
PM2.5	1A1b	Solid	0.000	0.000	3.0	160.0	160.0	0.000	-90.357	0.0
PM2.5	1A2a	Biomass		0.000	10.0	160.0	160.3	0.000	NA	0.0
PM2.5	1A2a	Liquid	0.069	0.000	4.9	100.0	100.1	0.000	-99.939	0.0
PM2.5	1A2a	Solid	0.089	0.001	3.0	160.0	160.0	0.000	-98.605	0.0
PM2.5	1A2b	Liquid	0.038	0.002	3.2	100.0	100.1	0.000	-94.330	0.0
PM2.5	1A2b	Solid	0.014	0.000	4.8	160.0	160.1	0.000	-98.581	0.0
PM2.5	1A2c	Biomass	0.016	0.005	9.8	160.0	160.3	0.004	-67.857	0.0
PM2.5	1A2c	Liquid	0.169	0.011	3.8	100.0	100.1	0.007	-93.492	0.0
PM2.5	1A2c	Other	0.001	0.000	10.0	160.0	160.3	0.000	-94.540	0.0
PM2.5	1A2d	Biomass	9.011	0.666	1.8	160.0	160.0	66.086	-92.610	3.2
PM2.5	1A2d	Liquid	0.652	0.054	1.9	100.0	100.0	0.168	-91.770	0.2
PM2.5	1A2d	Other	0.005	0.006	10.0	160.0	160.3	0.005	24.791	0.0
PM2.5	1A2d	Peat	0.154	0.003	2.0	120.0	120.0	0.001	-97.738	0.0
PM2.5	1A2d	Solid	0.110	0.000	5.0	160.0	160.1	0.000	-99.954	0.0
PM2.5	1A2e	Biomass	0.011	0.001	8.8	160.0	160.2	0.000	-86.923	0.0
PM2.5	1A2e	Liquid	0.143	0.002	4.0	100.0	100.1	0.000	-98.446	0.0
PM2.5	1A2e	Peat	0.023	0.001	5.0	120.0	120.1	0.000	-97.360	0.0
PM2.5	1A2e	Solid	0.013	0.001	4.7	160.0	160.1	0.000	-94.412	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM2.5	1A2f	Biomass	0.000	0.000	9.9	160.0	160.3	0.000	-55.966	0.0
PM2.5	1A2f	Liquid	0.219	0.012	3.3	100.0	100.1	0.009	-94.378	0.0
PM2.5	1A2f	Other		0.002	10.0	160.0	160.3	0.000	NA	0.0
PM2.5	1A2f	Solid	0.526	0.000	4.7	160.0	160.1	0.000	-99.947	0.0
PM2.5	1A2gvii	Liquid	1.422	0.200	4.9	100.0	100.1	2.330	-85.950	0.6
PM2.5	1A2gviii	Biomass	0.211	0.078	9.3	160.0	160.3	0.912	-62.968	0.4
PM2.5	1A2gviii	Liquid	0.464	0.004	4.2	100.0	100.1	0.001	-99.103	0.0
PM2.5	1A2gviii	Other	0.009	0.000	10.0	160.0	160.3	0.000	-95.795	0.0
PM2.5	1A2gviii	Peat	0.001	0.001	10.0	120.0	120.4	0.000	-57.216	0.0
PM2.5	1A3ai(i)	Liquid	0.003	0.006	5.0	100.0	100.1	0.002	90.606	0.0
PM2.5	1A3aii(i)	Liquid	0.002	0.001	5.0	100.0	100.1	0.000	-37.757	0.0
PM2.5	1A3bi	Diesel oil	2.366	0.108	1.0	100.0	100.0	0.680	-95.430	0.3
PM2.5	1A3bi	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM2.5	1A3bi	Gasoline	0.174	0.018	2.0	100.0	100.0	0.018	-89.839	0.1
PM2.5	1A3bii	Diesel oil	1.074	0.125	1.0	100.0	100.0	0.915	-88.325	0.4
PM2.5	1A3bii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM2.5	1A3bii	Gasoline	0.006	0.000	2.0	100.0	100.0	0.000	-99.016	0.0
PM2.5	1A3biii	Diesel oil	4.287	0.082	1.0	100.0	100.0	0.394	-98.081	0.2
PM2.5	1A3biii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM2.5	1A3biv	Diesel oil		0.001	1.0	100.0	100.0	0.000	NA	0.0
PM2.5	1A3biv	Gasoline	0.057	0.008	2.0	100.0	100.0	0.003	-86.544	0.0
PM2.5	1A3bvi		0.542	0.601	1.0	100.0	100.0	21.043	11.025	1.8
PM2.5	1A3bvii		0.408	0.455	1.0	100.0	100.0	12.046	11.422	1.4
PM2.5	1A3c	Liquid	0.084	0.023	2.0	100.0	100.0	0.032	-72.376	0.1
PM2.5	1A3dii	Liquid	0.544	0.268	9.4	100.0	100.4	4.214	-50.721	0.8
PM2.5	1A4ai	Biomass	0.030	0.051	20.0	80.0	82.5	0.103	70.871	0.1
PM2.5	1A4ai	Liquid	0.506	0.084	13.0	100.0	100.8	0.415	-83.459	0.3
PM2.5	1A4ai	Peat	0.002	0.002	15.0	160.0	160.7	0.000	7.113	0.0
PM2.5	1A4aii	Liquid	0.746	0.061	12.8	100.0	100.8	0.222	-91.799	0.2
PM2.5	1A4bi	Biomass	7.392	7.322	20.0	80.0	82.5	2121.833	-0.941	18.1
PM2.5	1A4bi	Liquid	0.219	0.015	15.0	100.0	101.1	0.013	-93.316	0.0
PM2.5	1A4bi	Other	0.000	0.000	10.0	160.0	160.3	0.000	-97.674	0.0
PM2.5	1A4bi	Peat	0.208	0.012	15.0	160.0	160.7	0.023	-94.000	0.1
PM2.5	1A4bii	Liquid	0.242	0.117	11.3	100.0	100.6	0.805	-51.663	0.4
PM2.5	1A4ci	Biomass	0.101	0.097	20.0	80.0	82.5	0.373	-3.693	0.2
PM2.5	1A4ci	Liquid	0.167	0.005	14.8	100.0	101.1	0.002	-96.928	0.0
PM2.5	1A4ci	Peat	0.008	0.022	10.0	160.0	160.3	0.076	181.031	0.1

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PM2.5	1A4ci	Solid	0.001	0.000	20.0	160.0	161.2	0.000	-71.661	0.0
PM2.5	1A4cii	Liquid	1.620	0.134	14.6	100.0	101.1	1.061	-91.752	0.4
PM2.5	1A4ciii	Liquid	0.069	0.039	15.0	100.0	101.1	0.091	-43.207	0.1
PM2.5	1A5a	Biomass	0.002	0.274	10.0	160.0	160.3	11.244	11841.496	1.3
PM2.5	1A5a	Liquid	0.308	0.037	16.4	100.0	101.3	0.081	-88.018	0.1
PM2.5	1B1b		0.003	0.007	40.0	200.0	204.0	0.013	120.000	0.0
PM2.5	1B1c		1.085	0.260	10.0	200.0	200.2	15.822	-75.994	1.6
PM2.5	1B2aiv		0.189	0.000	80.0	200.0	215.4	0.000	-99.958	0.0
PM2.5	1B2av		0.005	0.000	40.0	200.0	204.0	0.000	-97.682	0.0
PM2.5	2A2		0.026	0.000	40.0	200.0	204.0	0.000	-99.195	0.0
PM2.5	2A3		0.124	0.002	40.0	200.0	204.0	0.001	-98.313	0.0
PM2.5	2A5a		0.068	0.000	40.0	200.0	204.0	0.000	-99.706	0.0
PM2.5	2A5b		0.504	0.001	40.0	200.0	204.0	0.000	-99.845	0.0
PM2.5	2A5c		0.049	0.017	30.0	200.0	202.2	0.067	-65.540	0.1
PM2.5	2B10a		0.738	0.154	80.0	200.0	215.4	6.371	-79.195	1.0
PM2.5	2B10b		0.001	0.001	40.0	200.0	204.0	0.000	41.794	0.0
PM2.5	2C1		3.152	0.165	40.0	200.0	204.0	6.601	-94.761	1.0
PM2.5	2C2		0.014	0.055	40.0	200.0	204.0	0.727	291.845	0.3
PM2.5	2C3		0.001	0.000	60.0	200.0	208.8	0.000	-86.183	0.0
PM2.5	2C7a		0.026	0.000	60.0	200.0	208.8	0.000	-98.064	0.0
PM2.5	2C7c		0.201	0.005	40.0	200.0	204.0	0.006	-97.481	0.0
PM2.5	2C7d		0.001	0.001	30.0	100.0	104.4	0.000	-9.764	0.0
PM2.5	2D3b		0.087	0.038	30.0	200.0	202.2	0.351	-55.806	0.2
PM2.5	2D3d		0.000	0.000	40.0	200.0	204.0	0.000	78.835	0.0
PM2.5	2D3g		0.016	0.000	40.0	200.0	204.0	0.000	-99.474	0.0
PM2.5	2D3i		0.064	0.054	40.0	200.0	204.0	0.718	-15.292	0.3
PM2.5	2G		0.240	0.111	35.0	73.0	81.0	0.474	-53.621	0.3
PM2.5	2H1		1.455	0.173	80.0	200.0	215.4	8.105	-88.094	1.1
PM2.5	2H2		0.303	0.377	40.0	200.0	204.0	34.478	24.739	2.3
PM2.5	2I		0.131	0.001	40.0	200.0	204.0	0.000	-99.286	0.0
PM2.5	2L		0.054	0.007	40.0	200.0	204.0	0.013	-86.690	0.0
PM2.5	3B1a		0.132	0.052	3.0	200.0	200.0	0.642	-60.332	0.3
PM2.5	3B1b		0.079	0.048	3.0	200.0	200.0	0.545	-38.916	0.3
PM2.5	3B2		0.001	0.001	5.0	200.0	200.1	0.000	14.978	0.0
PM2.5	3B3		0.004	0.002	5.0	200.0	200.1	0.001	-54.705	0.0
PM2.5	3B4d		0.000	0.000	5.0	200.0	200.1	0.000	-4.227	0.0
PM2.5	3B4e		0.004	0.006	5.0	200.0	200.1	0.008	48.315	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM2.5	3B4gi		0.014	0.011	5.0	200.0	200.1	0.028	-21.985	0.1
PM2.5	3B4gii		0.003	0.009	5.0	200.0	200.1	0.020	205.217	0.1
PM2.5	3B4giii		0.001	0.003	5.0	200.0	200.1	0.002	373.643	0.0
PM2.5	3B4giv		0.032	0.009	5.0	200.0	200.1	0.021	-70.890	0.1
PM2.5	3B4h		0.013	0.005	5.0	200.0	200.1	0.005	-63.989	0.0
PM2.5	3Dc		0.268	0.204	3.0	200.0	200.0	9.676	-23.931	1.2
PM2.5	5A		0.000	0.000	15.0	385.0	385.3	0.000	-54.303	0.0
PM2.5	5C1bv		0.000	0.001	10.0	900.0	900.1	0.009	413.562	0.0
PM2.5	5E		0.378	0.116	35.0	100.0	105.9	0.882	-69.245	0.4
Total			47.150	13.108			48.3		-72.200	19.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM10	1A1a	Biomass	0.626	0.354	4.8	160.0	160.1	4.854	-43.461	1.1
PM10	1A1a	Liquid	1.057	0.023	2.2	100.0	100.0	0.008	-97.805	0.0
PM10	1A1a	Other	0.002	0.006	10.0	160.0	160.3	0.001	246.074	0.0
PM10	1A1a	Peat	1.337	0.199	2.0	120.0	120.0	0.860	-85.136	0.5
PM10	1A1a	Solid	4.794	0.123	1.0	160.0	160.0	0.582	-97.441	0.4
PM10	1A1b	Liquid	0.223	0.021	5.0	100.0	100.1	0.007	-90.633	0.0
PM10	1A1b	Solid	0.002	0.000	3.0	160.0	160.0	0.000	-90.357	0.0
PM10	1A2a	Biomass		0.000	10.0	160.0	160.3	0.000	NA	0.0
PM10	1A2a	Liquid	0.117	0.000	4.9	100.0	100.1	0.000	-99.857	0.0
PM10	1A2a	Solid	0.398	0.005	3.0	160.0	160.0	0.001	-98.627	0.0
PM10	1A2b	Liquid	0.059	0.004	3.2	100.0	100.1	0.000	-93.439	0.0
PM10	1A2b	Solid	0.072	0.001	4.8	160.0	160.1	0.000	-98.248	0.0
PM10	1A2c	Biomass	0.025	0.006	9.8	160.0	160.3	0.001	-76.869	0.0
PM10	1A2c	Liquid	0.267	0.027	3.8	100.0	100.1	0.011	-89.987	0.1
PM10	1A2c	Other	0.006	0.000	10.0	160.0	160.3	0.000	-97.277	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM10	1A2d	Biomass	11.986	1.086	1.8	160.0	160.0	45.654	-90.936	3.3
PM10	1A2d	Liquid	0.907	0.027	1.8	100.0	100.0	0.011	-97.075	0.1
PM10	1A2d	Other	0.011	0.015	10.0	160.0	160.3	0.009	36.136	0.0
PM10	1A2d	Peat	0.326	0.008	2.0	120.0	120.0	0.001	-97.606	0.0
PM10	1A2d	Solid	0.493	0.000	5.0	160.0	160.1	0.000	-99.969	0.0
PM10	1A2e	Biomass	0.040	0.008	8.8	160.0	160.2	0.002	-80.933	0.0
PM10	1A2e	Liquid	0.221	0.005	4.0	100.0	100.1	0.000	-97.944	0.0
PM10	1A2e	Peat	0.111	0.003	5.0	120.0	120.1	0.000	-97.117	0.0
PM10	1A2e	Solid	0.065	0.004	4.7	160.0	160.1	0.001	-94.412	0.0
PM10	1A2f	Biomass	0.000	0.000	9.9	160.0	160.3	0.000	20.659	0.0
PM10	1A2f	Liquid	0.358	0.024	3.3	100.0	100.1	0.009	-93.213	0.0
PM10	1A2f	Other		0.003	10.0	160.0	160.3	0.000	NA	0.0
PM10	1A2f	Solid	0.971	0.004	4.7	160.0	160.1	0.001	-99.582	0.0
PM10	1A2gvii	Liquid	1.422	0.200	4.9	100.0	100.1	0.605	-85.950	0.4
PM10	1A2gviii	Biomass	0.678	0.162	9.3	160.0	160.3	1.022	-76.070	0.5
PM10	1A2gviii	Liquid	0.737	0.009	4.2	100.0	100.1	0.001	-98.755	0.0
PM10	1A2gviii	Other	0.048	0.002	10.0	160.0	160.3	0.000	-95.772	0.0
PM10	1A2gviii	Peat	0.005	0.001	10.0	120.0	120.4	0.000	-73.833	0.0
PM10	1A3ai(i)	Liquid	0.003	0.006	5.0	100.0	100.1	0.001	90.606	0.0
PM10	1A3aii(i)	Liquid	0.002	0.001	5.0	100.0	100.1	0.000	-37.757	0.0
PM10	1A3bi	Diesel oil	2.366	0.108	1.0	100.0	100.0	0.177	-95.430	0.2
PM10	1A3bi	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM10	1A3bi	Gasoline	0.174	0.018	2.0	100.0	100.0	0.005	-89.839	0.0
PM10	1A3bii	Diesel oil	1.074	0.125	1.0	100.0	100.0	0.237	-88.325	0.2
PM10	1A3bii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM10	1A3bii	Gasoline	0.006	0.000	2.0	100.0	100.0	0.000	-99.016	0.0
PM10	1A3biii	Diesel oil	4.287	0.082	1.0	100.0	100.0	0.102	-98.081	0.2
PM10	1A3biii	Gaseous		0.000	3.0	100.0	100.0	0.000	NA	0.0
PM10	1A3biv	Diesel oil		0.001	1.0	100.0	100.0	0.000	NA	0.0
PM10	1A3biv	Gasoline	0.057	0.008	2.0	100.0	100.0	0.001	-86.544	0.0
PM10	1A3bvi		0.982	1.092	1.0	100.0	100.0	18.008	11.120	2.1
PM10	1A3bvii		4.773	5.355	1.0	100.0	100.0	433.248	12.190	10.2
PM10	1A3c	Liquid	0.089	0.024	2.0	100.0	100.0	0.009	-72.376	0.0
PM10	1A3dii	Liquid	0.565	0.276	9.4	100.0	100.4	1.160	-51.194	0.5
PM10	1A4ai	Biomass	0.032	0.053	20.0	80.0	82.5	0.028	65.290	0.1
PM10	1A4ai	Liquid	0.814	0.148	13.0	100.0	100.8	0.337	-81.782	0.3
PM10	1A4ai	Peat	0.009	0.009	15.0	160.0	160.7	0.003	7.113	0.0

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PM10	1A4a	Liquid	0.746	0.061	12.8	100.0	100.8	0.058	-91.799	0.1
PM10	1A4bi	Biomass	7.630	7.558	20.0	80.0	82.5	586.876	-0.941	11.9
PM10	1A4bi	Liquid	0.336	0.019	15.0	100.0	101.1	0.005	-94.389	0.0
PM10	1A4bi	Other	0.000	0.000	10.0	160.0	160.3	0.000	-97.674	0.0
PM10	1A4bi	Peat	0.234	0.014	15.0	160.0	160.7	0.008	-94.000	0.0
PM10	1A4bii	Liquid	0.242	0.117	11.3	100.0	100.6	0.209	-51.663	0.2
PM10	1A4ci	Biomass	0.104	0.106	20.0	80.0	82.5	0.116	2.068	0.2
PM10	1A4ci	Liquid	0.269	0.015	14.8	100.0	101.1	0.004	-94.357	0.0
PM10	1A4ci	Peat	0.042	0.117	10.0	160.0	160.3	0.531	181.031	0.4
PM10	1A4ci	Solid	0.003	0.001	20.0	160.0	161.2	0.000	-66.095	0.0
PM10	1A4cii	Liquid	1.620	0.134	14.6	100.0	101.1	0.276	-91.752	0.3
PM10	1A4ciii	Liquid	0.077	0.044	15.0	100.0	101.1	0.029	-43.207	0.1
PM10	1A5a	Biomass	0.012	1.426	10.0	160.0	160.3	78.919	11841.496	4.4
PM10	1A5a	Liquid	0.485	0.051	16.4	100.0	101.3	0.040	-89.456	0.1
PM10	1B1b		0.008	0.018	40.0	200.0	204.0	0.019	120.000	0.1
PM10	1B1c		1.544	0.371	10.0	200.0	200.2	8.328	-75.994	1.4
PM10	1B2aiv		0.312	0.000	80.0	200.0	215.4	0.000	-99.927	0.0
PM10	1B2av		0.005	0.000	40.0	200.0	204.0	0.000	-97.682	0.0
PM10	2A2		0.072	0.001	40.0	200.0	204.0	0.000	-98.530	0.0
PM10	2A3		0.142	0.002	40.0	200.0	204.0	0.000	-98.345	0.0
PM10	2A5a		0.230	0.002	40.0	200.0	204.0	0.000	-99.125	0.0
PM10	2A5b		0.796	0.007	40.0	200.0	204.0	0.003	-99.141	0.0
PM10	2A5c		0.477	0.162	30.0	200.0	202.2	1.615	-66.122	0.6
PM10	2B10a		1.156	0.357	80.0	200.0	215.4	8.913	-69.154	1.5
PM10	2B10b		0.007	0.011	40.0	200.0	204.0	0.007	41.687	0.0
PM10	2C1		4.059	0.182	40.0	200.0	204.0	2.083	-95.515	0.7
PM10	2C2		0.020	0.078	40.0	200.0	204.0	0.379	291.845	0.3
PM10	2C3		0.002	0.000	60.0	200.0	208.8	0.000	-86.183	0.0
PM10	2C7a		0.034	0.001	60.0	200.0	208.8	0.000	-98.181	0.0
PM10	2C7c		0.408	0.006	40.0	200.0	204.0	0.002	-98.533	0.0
PM10	2C7d		0.006	0.006	30.0	100.0	104.4	0.001	-9.764	0.0
PM10	2D3b		0.095	0.042	30.0	200.0	202.2	0.108	-55.806	0.2
PM10	2D3d		0.000	0.001	40.0	200.0	204.0	0.000	78.835	0.0
PM10	2D3g		0.017	0.000	40.0	200.0	204.0	0.000	-99.206	0.0
PM10	2D3i		0.187	0.059	40.0	200.0	204.0	0.218	-68.589	0.2
PM10	2G		0.240	0.112	35.0	60.0	69.5	0.091	-53.598	0.1
PM10	2H1		2.011	0.262	80.0	200.0	215.4	4.804	-86.982	1.1

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PM10	2H2		0.320	0.386	40.0	200.0	204.0	9.370	20.528	1.5
PM10	2I		0.271	0.015	40.0	200.0	204.0	0.015	-94.315	0.1
PM10	2L		0.081	0.011	40.0	200.0	204.0	0.008	-86.054	0.0
PM10	3B1a		0.203	0.081	3.0	200.0	200.0	0.393	-60.332	0.3
PM10	3B1b		0.122	0.074	3.0	200.0	200.0	0.335	-39.125	0.3
PM10	3B2		0.002	0.002	5.0	200.0	200.1	0.000	14.978	0.0
PM10	3B3		0.086	0.041	5.0	200.0	200.1	0.101	-52.530	0.2
PM10	3B4d		0.000	0.000	5.0	200.0	200.1	0.000	-4.227	0.0
PM10	3B4e		0.006	0.009	5.0	200.0	200.1	0.005	48.315	0.0
PM10	3B4gi		0.189	0.147	5.0	200.0	200.1	1.314	-21.985	0.6
PM10	3B4gii		0.031	0.093	5.0	200.0	200.1	0.526	205.217	0.4
PM10	3B4giii		0.003	0.016	5.0	200.0	200.1	0.015	373.643	0.1
PM10	3B4giv		0.227	0.066	5.0	200.0	200.1	0.266	-70.820	0.3
PM10	3B4h		0.027	0.010	5.0	200.0	200.1	0.006	-63.989	0.0
PM10	3Dc		4.897	3.678	3.0	200.0	200.0	817.786	-24.890	14.1
PM10	5A		0.001	0.001	15.0	379.0	379.3	0.000	-54.303	0.0
PM10	5C1bv		0.000	0.001	10.0	900.0	900.1	0.002	413.562	0.0
PM10	5E		0.378	0.116	35.0	100.0	105.9	0.229	-69.245	0.2
Total			73.970	25.728			45.1		-65.218	22.2

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
TSP	1A1a	Biomass	1.331	0.737	10.0		10.0	0.035	-44.585	0.1
TSP	1A1a	Liquid	1.214	0.037	10.0		10.0	0.000	-96.972	0.0
TSP	1A1a	Other	0.013	0.019	10.0		10.0	0.000	44.882	0.0
TSP	1A1a	Peat	2.295	0.701	2.3	60.0	60.0	1.132	-69.471	0.6
TSP	1A1a	Solid	7.164	0.156	10.0		10.0	0.002	-97.823	0.0
TSP	1A1b	Liquid	0.536	0.075	10.0		10.0	0.000	-85.970	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
TSP	1A1b	Solid	0.009	0.001	10.0		10.0	0.000	-90.357	0.0
TSP	1A2a	Biomass		0.001	10.0		10.0	0.000	NA	0.0
TSP	1A2a	Liquid	0.157	0.000	10.0		10.0	0.000	-99.786	0.0
TSP	1A2a	Solid	0.941	0.014	10.0		10.0	0.000	-98.479	0.0
TSP	1A2b	Liquid	0.069	0.005	10.0		10.0	0.000	-93.240	0.0
TSP	1A2b	Solid	0.277	0.005	10.0		10.0	0.000	-98.248	0.0
TSP	1A2c	Biomass	0.029	0.008	10.0		10.0	0.000	-74.339	0.0
TSP	1A2c	Liquid	0.299	0.031	10.0		10.0	0.000	-89.481	0.0
TSP	1A2c	Other	0.023	0.000	10.0		10.0	0.000	-99.159	0.0
TSP	1A2d	Biomass	14.007	1.263	10.0		10.0	0.102	-90.984	0.2
TSP	1A2d	Liquid	1.441	0.054	10.0		10.0	0.000	-96.256	0.0
TSP	1A2d	Other	0.017	0.024	10.0		10.0	0.000	41.106	0.0
TSP	1A2d	Peat	0.435	0.010	10.0		10.0	0.000	-97.709	0.0
TSP	1A2d	Solid	0.715	0.000	10.0		10.0	0.000	-99.972	0.0
TSP	1A2e	Biomass	0.074	0.015	10.0		10.0	0.000	-80.160	0.0
TSP	1A2e	Liquid	0.260	0.006	10.0		10.0	0.000	-97.599	0.0
TSP	1A2e	Peat	0.169	0.009	10.0		10.0	0.000	-94.772	0.0
TSP	1A2e	Solid	0.251	0.006	10.0		10.0	0.000	-97.755	0.0
TSP	1A2f	Biomass	0.001	0.001	10.0		10.0	0.000	18.660	0.0
TSP	1A2f	Liquid	0.449	0.030	10.0		10.0	0.000	-93.242	0.0
TSP	1A2f	Other	0.029	0.007	10.0		10.0	0.000	-76.915	0.0
TSP	1A2f	Solid	1.954	0.009	10.0		10.0	0.000	-99.517	0.0
TSP	1A2gvii	Liquid	1.422	0.200	4.9	50.0	50.2	0.065	-85.950	0.1
TSP	1A2gviii	Biomass	1.586	0.286	10.0		10.0	0.005	-81.949	0.0
TSP	1A2gviii	Liquid	0.821	0.015	10.0		10.0	0.000	-98.192	0.0
TSP	1A2gviii	Other	0.189	0.003	10.0		10.0	0.000	-98.625	0.0
TSP	1A2gviii	Peat	0.007	0.003	10.0		10.0	0.000	-64.375	0.0
TSP	1A3ai(i)	Liquid	0.003	0.006	5.0	50.0	50.2	0.000	90.606	0.0
TSP	1A3aai(i)	Liquid	0.002	0.001	5.0	50.0	50.2	0.000	-37.757	0.0
TSP	1A3bi	Diesel oil	2.366	0.108	1.0	50.0	50.0	0.019	-95.430	0.1
TSP	1A3bi	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
TSP	1A3bi	Gasoline	0.174	0.018	2.0	50.0	50.0	0.000	-89.839	0.0
TSP	1A3bii	Diesel oil	1.074	0.125	1.0	50.0	50.0	0.025	-88.325	0.1
TSP	1A3bii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0
TSP	1A3bii	Gasoline	0.006	0.000	2.0	50.0	50.0	0.000	-99.016	0.0
TSP	1A3biii	Diesel oil	4.287	0.082	1.0	50.0	50.0	0.011	-98.081	0.1
TSP	1A3biii	Gaseous		0.000	3.0	50.0	50.1	0.000	NA	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
TSP	1A3biv	Diesel oil		0.001	1.0	50.0	50.0	0.000	NA	0.0
TSP	1A3biv	Gasoline	0.057	0.008	2.0	50.0	50.0	0.000	-86.544	0.0
TSP	1A3bvi		1.325	1.471	1.0	50.0	50.0	3.463	11.037	1.1
TSP	1A3bvii		9.546	10.710	1.0	50.0	50.0	183.565	12.190	7.7
TSP	1A3c	Liquid	0.094	0.026	2.0	50.0	50.0	0.001	-72.376	0.0
TSP	1A3dii	Liquid	0.565	0.276	9.4	50.0	50.9	0.126	-51.194	0.2
TSP	1A4ai	Biomass	0.037	0.055	20.0	80.0	82.5	0.013	48.936	0.1
TSP	1A4ai	Liquid	0.994	0.198	13.0	50.0	51.7	0.067	-80.045	0.1
TSP	1A4ai	Peat	0.034	0.036	13.1	80.0	81.1	0.005	7.113	0.0
TSP	1A4aii	Liquid	0.746	0.061	12.8	50.0	51.6	0.006	-91.799	0.0
TSP	1A4bi	Biomass	7.948	7.873	20.0	80.0	82.5	269.728	-0.941	9.3
TSP	1A4bi	Liquid	0.425	0.021	15.0	50.0	52.2	0.001	-95.073	0.0
TSP	1A4bi	Other	0.000	0.000	10.0	80.0	80.6	0.000	-97.674	0.0
TSP	1A4bi	Peat	0.260	0.016	15.0	80.0	81.4	0.001	-94.000	0.0
TSP	1A4bii	Liquid	0.242	0.117	11.3	50.0	51.3	0.023	-51.663	0.1
TSP	1A4ci	Biomass	0.108	0.116	17.8	80.0	82.0	0.058	7.515	0.1
TSP	1A4ci	Liquid	0.329	0.027	14.8	50.0	52.1	0.001	-91.699	0.0
TSP	1A4ci	Peat	0.160	0.450	9.9	80.0	80.6	0.841	181.031	0.5
TSP	1A4ci	Solid	0.008	0.002	20.0	80.0	82.5	0.000	-69.725	0.0
TSP	1A4cii	Liquid	1.620	0.134	14.6	50.0	52.1	0.031	-91.752	0.1
TSP	1A4ciii	Liquid	0.077	0.044	15.0	50.0	52.2	0.003	-43.207	0.0
TSP	1A5a	Biomass	0.046	5.483	10.0	80.0	80.6	125.066	11841.496	6.3
TSP	1A5a	Liquid	0.591	0.069	16.4	50.0	52.6	0.008	-88.399	0.1
TSP	1B1b		0.019	0.042	20.0		20.0	0.000	120.000	0.0
TSP	1B1c		2.363	0.567	10.0	200.0	200.2	8.257	-75.994	1.6
TSP	1B2aiv		0.442	0.000	40.0		40.0	0.000	-99.940	0.0
TSP	1B2av		0.005	0.000	20.0		20.0	0.000	-97.682	0.0
TSP	2A2		0.174	0.003	18.8		18.8	0.000	-98.447	0.0
TSP	2A3		0.158	0.003	20.0		20.0	0.000	-98.351	0.0
TSP	2A5a		0.400	0.004	19.8	200.0	201.0	0.000	-98.977	0.0
TSP	2A5b		1.014	0.022	29.7	200.0	202.2	0.013	-97.799	0.1
TSP	2A5c		1.217	0.420	30.0	200.0	202.2	4.615	-65.483	1.2
TSP	2B10a		1.409	0.408	40.0		40.0	0.171	-71.003	0.2
TSP	2B10b		0.023	0.033	30.0	200.0	202.2	0.029	41.671	0.1
TSP	2C1		5.545	0.217	20.0		20.0	0.012	-96.094	0.1
TSP	2C2		0.023	0.091	20.0		20.0	0.002	291.845	0.0
TSP	2C3		0.003	0.000	19.1		19.1	0.000	-86.183	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
TSP	2C7a		0.043	0.001	29.5		29.5	0.000	-97.813	0.0
TSP	2C7c		0.855	0.009	20.0		20.0	0.000	-98.913	0.0
TSP	2C7d		0.012	0.011	30.0	100.0	104.4	0.001	-9.764	0.0
TSP	2D3b		0.126	0.056	30.0	200.0	202.2	0.082	-55.806	0.2
TSP	2D3d		0.001	0.001	20.0		20.0	0.000	78.835	0.0
TSP	2D3g		0.019	0.000	20.0		20.0	0.000	-98.719	0.0
TSP	2D3i		0.598	0.063	19.2		19.2	0.001	-89.448	0.0
TSP	2G		0.240	0.112	35.0	55.0	65.2	0.034	-53.593	0.1
TSP	2H1		2.447	0.288	40.0		40.0	0.085	-88.216	0.2
TSP	2H2		0.329	0.400	26.0	200.0	201.7	4.169	21.771	1.2
TSP	2I		0.590	0.079	20.0		20.0	0.002	-86.616	0.0
TSP	2L		0.093	0.015	20.0		20.0	0.000	-83.715	0.0
TSP	3B1a		0.445	0.177	3.0	200.0	200.0	0.799	-60.332	0.5
TSP	3B1b		0.264	0.161	3.0	200.0	200.0	0.663	-39.035	0.5
TSP	3B2		0.005	0.006	5.0	200.0	200.1	0.001	14.978	0.0
TSP	3B3		0.518	0.264	5.0	200.0	200.1	1.791	-48.906	0.8
TSP	3B4d		0.000	0.000	5.0	200.0	200.1	0.000	-4.227	0.0
TSP	3B4e		0.014	0.021	5.0	200.0	200.1	0.011	48.315	0.1
TSP	3B4gi		0.897	0.700	5.0	200.0	200.1	12.557	-21.985	2.0
TSP	3B4gii		0.061	0.186	5.0	200.0	200.1	0.891	205.217	0.5
TSP	3B4giii		0.003	0.016	5.0	200.0	200.1	0.006	373.643	0.0
TSP	3B4giv		0.234	0.070	5.0	200.0	200.1	0.124	-70.281	0.2
TSP	3B4h		0.060	0.022	5.0	200.0	200.1	0.012	-63.989	0.1
TSP	3Dc		4.897	3.678	3.0	200.0	200.0	346.388	-24.890	10.5
TSP	5A		0.003	0.001	15.0	377.0	377.3	0.000	-54.303	0.0
TSP	5C1bv		0.000	0.002	10.0	900.0	900.1	0.001	413.562	0.0
TSP	5E		0.378	0.116	35.0	100.0	105.9	0.097	-69.245	0.2
Total			98.738	39.531			31.1		-59.964	17.6

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
BC	1A1a	Biomass	0.005	0.002	4.8	320.0	320.0	0.061	-54.914	0.1
BC	1A1a	Liquid	0.177	0.004	2.2	200.0	200.0	0.054	-97.986	0.1
BC	1A1a	Other	0.000	0.000	10.0	320.0	320.2	0.000	144.955	0.0
BC	1A1a	Peat	0.015	0.001	2.0	280.0	280.0	0.017	-90.795	0.1
BC	1A1a	Solid	0.024	0.001	1.0	320.0	320.0	0.008	-96.488	0.0
BC	1A1b	Liquid	0.011	0.000	5.0	200.0	200.1	0.001	-96.051	0.0
BC	1A1b	Solid	0.000	0.000	3.0	320.0	320.0	0.000	-91.233	0.0
BC	1A2a	Biomass		0.000	10.0	320.0	320.2	0.000	NA	0.0
BC	1A2a	Liquid	0.015	0.000	4.9	200.0	200.1	0.000	-99.907	0.0
BC	1A2a	Solid	0.002	0.000	3.0	320.0	320.0	0.000	-98.703	0.0
BC	1A2b	Liquid	0.011	0.000	3.2	200.0	200.0	0.001	-95.658	0.0
BC	1A2b	Solid	0.000	0.000	4.8	320.0	320.0	0.000	-98.665	0.0
BC	1A2c	Biomass	0.001	0.000	9.8	320.0	320.1	0.001	-66.975	0.0
BC	1A2c	Liquid	0.050	0.003	3.8	200.0	200.0	0.036	-94.174	0.1
BC	1A2c	Other	0.000	0.000	10.0	320.0	320.2	0.000	-98.727	0.0
BC	1A2d	Biomass	0.031	0.009	4.5	320.0	320.0	0.819	-72.155	0.4
BC	1A2d	Liquid	0.103	0.005	1.9	200.0	200.0	0.120	-94.842	0.1
BC	1A2d	Other	0.002	0.000	10.0	320.0	320.2	0.001	-82.299	0.0
BC	1A2d	Peat	0.005	0.000	2.0	280.0	280.0	0.000	-97.738	0.0
BC	1A2d	Solid	0.002	0.000	5.0	320.0	320.0	0.000	-99.954	0.0
BC	1A2e	Biomass	0.000	0.000	8.8	320.0	320.1	0.000	-78.275	0.0
BC	1A2e	Liquid	0.043	0.001	4.0	200.0	200.0	0.002	-98.428	0.0
BC	1A2e	Peat	0.001	0.000	5.0	280.0	280.0	0.000	-97.360	0.0
BC	1A2e	Solid	0.000	0.000	4.7	320.0	320.0	0.000	-94.413	0.0
BC	1A2f	Biomass	0.000	0.000	9.9	320.0	320.2	0.000	-55.966	0.0
BC	1A2f	Liquid	0.066	0.003	3.3	200.0	200.0	0.028	-96.090	0.1
BC	1A2f	Other		0.000	10.0	320.0	320.2	0.003	NA	0.0
BC	1A2f	Solid	0.012	0.000	4.7	320.0	320.0	0.000	-99.950	0.0
BC	1A2gvii	Liquid	0.877	0.122	4.9	200.0	200.1	63.242	-86.117	3.4
BC	1A2gviii	Biomass	0.007	0.003	9.3	320.0	320.1	0.073	-63.805	0.1
BC	1A2gviii	Liquid	0.140	0.001	4.2	200.0	200.0	0.005	-99.203	0.0
BC	1A2gviii	Other	0.002	0.000	10.0	320.0	320.2	0.000	-97.023	0.0
BC	1A2gviii	Peat	0.000	0.000	10.0	280.0	280.2	0.000	-57.216	0.0
BC	1A3ai(i)	Liquid	0.002	0.003	5.0	200.0	200.1	0.038	90.606	0.1
BC	1A3aii(i)	Liquid	0.001	0.001	5.0	200.0	200.1	0.002	-37.757	0.0
BC	1A3bi	Diesel oil	1.349	0.062	1.0	200.0	200.0	16.197	-95.430	1.7
BC	1A3bi	Gasoline	0.021	0.002	2.0	200.0	200.0	0.019	-89.839	0.1

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
BC	1A3bii	Diesel oil	0.591	0.069	1.0	200.0	200.0	20.273	-88.325	1.9
BC	1A3bii	Gasoline	0.000	0.000	2.0	200.0	200.0	0.000	-99.016	0.0
BC	1A3biii	Diesel oil	2.272	0.044	1.0	200.0	200.0	8.108	-98.081	1.2
BC	1A3biv	Diesel oil		0.001	1.0	200.0	200.0	0.002	NA	0.0
BC	1A3biv	Gasoline	0.006	0.001	2.0	200.0	200.0	0.003	-86.544	0.0
BC	1A3bvi		0.140	0.155	1.0	200.0	200.0	102.696	10.842	4.3
BC	1A3bvii		0.079	0.089	1.0	200.0	200.0	33.695	12.190	2.5
BC	1A3c	Liquid	0.055	0.015	2.0	200.0	200.0	0.978	-72.376	0.4
BC	1A3dii	Liquid	0.069	0.048	9.4	200.0	200.2	9.769	-31.002	1.3
BC	1A4ai	Biomass	0.001	0.002	20.0	80.0	82.5	0.002	70.440	0.0
BC	1A4ai	Liquid	0.152	0.025	13.0	200.0	200.4	2.759	-83.340	0.7
BC	1A4ai	Peat	0.000	0.000	15.0	320.0	320.4	0.000	7.113	0.0
BC	1A4aii	Liquid	0.230	0.015	12.8	200.0	200.4	0.964	-93.481	0.4
BC	1A4bi	Biomass	2.260	2.148	20.0	80.0	82.5	3345.022	-4.960	24.7
BC	1A4bi	Liquid	0.072	0.005	15.0	200.0	200.6	0.104	-93.191	0.1
BC	1A4bi	Other	0.000	0.000	10.0	320.0	320.2	0.000	-97.674	0.0
BC	1A4bi	Peat	0.007	0.000	15.0	320.0	320.4	0.002	-94.000	0.0
BC	1A4bii	Liquid	0.027	0.023	11.3	200.0	200.3	2.268	-13.874	0.6
BC	1A4ci	Biomass	0.003	0.003	20.0	80.0	82.5	0.007	-3.675	0.0
BC	1A4ci	Liquid	0.050	0.002	14.8	200.0	200.5	0.012	-96.746	0.0
BC	1A4ci	Peat	0.000	0.001	10.0	320.0	320.2	0.006	181.031	0.0
BC	1A4ci	Solid	0.000	0.000	20.0	320.0	320.6	0.000	-71.661	0.0
BC	1A4cii	Liquid	0.877	0.058	14.6	200.0	200.5	14.289	-93.414	1.6
BC	1A4ciii	Liquid	0.024	0.014	15.0	200.0	200.6	0.782	-43.207	0.4
BC	1A5a	Biomass	0.000	0.077	10.0	320.0	320.2	64.397	101221.786	3.4
BC	1A5a	Liquid	0.094	0.016	16.4	200.0	200.7	1.051	-83.275	0.4
BC	1B1b		0.002	0.004	80.0	400.0	407.9	0.230	120.000	0.2
BC	2A2		0.000	0.000	80.0	400.0	407.9	0.000	-99.282	0.0
BC	2A3		0.000	0.000	80.0	400.0	407.9	0.000	-98.313	0.0
BC	2B10a		0.013	0.003	160.0	400.0	430.8	0.151	-79.134	0.2
BC	2C1		0.012	0.001	80.0	400.0	407.9	0.006	-94.931	0.0
BC	2C2		0.001	0.005	80.0	400.0	407.9	0.532	291.845	0.3
BC	2C3		0.000	0.000	120.0	400.0	417.6	0.000	-86.183	0.0
BC	2C7a		0.000	0.000	120.0	400.0	417.6	0.000	-99.287	0.0
BC	2D3b		0.005	0.002	30.0	200.0	202.2	0.021	-55.806	0.1
BC	2D3i		0.000	0.000	80.0	400.0	407.9	0.000	-91.002	0.0
BC	2G		0.001	0.001	35.0	49.0	60.2	0.000	-53.646	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
BC	2H1		0.047	0.005	160.0	400.0	430.8	0.401	-90.470	0.3
BC	5C1bv		0.000	0.001	10.0	900.0	900.1	0.040	413.562	0.1
BC	5E		0.033	0.010	35.0	100.0	105.9	0.120	-70.050	0.1
Total			10.135	3.063			60.7		-69.782	26.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
CO	1A1a	Biomass	1.545	12.206	4.4	70.0	70.1	8.232	689.794	1.6
CO	1A1a	Gaseous	0.779	0.261	7.4	70.0	70.4	0.004	-66.496	0.0
CO	1A1a	Liquid	0.371	0.139	3.3	70.0	70.1	0.001	-62.579	0.0
CO	1A1a	Other	0.008	0.171	8.5	70.0	70.5	0.002	1931.537	0.0
CO	1A1a	Peat	1.544	1.210	2.3	70.0	70.0	0.081	-21.628	0.2
CO	1A1a	Solid	0.793	0.162	5.3	70.0	70.2	0.001	-79.529	0.0
CO	1A1b	Biomass		0.015	10.0	70.0	70.7	0.000	NA	0.0
CO	1A1b	Gaseous	0.167	0.121	1.0	70.0	70.0	0.001	-27.723	0.0
CO	1A1b	Liquid	0.406	0.285	3.9	70.0	70.1	0.004	-29.791	0.0
CO	1A1b	Solid	0.001	0.009	3.0	70.0	70.1	0.000	623.246	0.0
CO	1A2a	Biomass		0.001	10.0		10.0	0.000	NA	0.0
CO	1A2a	Gaseous	0.023	0.126	2.0	70.0	70.0	0.001	441.154	0.0
CO	1A2a	Liquid	0.246	0.007	4.2	70.0	70.1	0.000	-97.264	0.0
CO	1A2a	Solid	6.922	0.547	2.1	70.0	70.0	0.016	-92.095	0.1
CO	1A2b	Gaseous		0.002	4.9	70.0	70.2	0.000	NA	0.0
CO	1A2b	Liquid	0.020	0.081	7.9	70.0	70.4	0.000	298.422	0.0
CO	1A2b	Solid	0.079	0.004	4.8	70.0	70.2	0.000	-94.902	0.0
CO	1A2c	Biomass	0.021	0.016	9.7	70.0	70.7	0.000	-23.217	0.0
CO	1A2c	Gaseous	0.034	0.028	2.1	70.0	70.0	0.000	-18.367	0.0
CO	1A2c	Liquid	0.191	0.230	3.3	70.0	70.1	0.003	20.427	0.0
CO	1A2c	Other	0.111	0.003	10.0	70.0	70.7	0.000	-97.190	0.0

Pollutant	NFR	Fuel	Base year emissions, kt	Year 2023 emissions, kt	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
CO	1A2d	Biomass	25.273	13.548	2.1	70.0	70.0	10.112	-46.391	1.8
CO	1A2d	Gaseous	1.836	0.255	6.5	70.0	70.3	0.004	-86.097	0.0
CO	1A2d	Liquid	1.041	0.150	2.0	70.0	70.0	0.001	-85.617	0.0
CO	1A2d	Other	0.008	0.280	9.3	70.0	70.6	0.004	3420.971	0.0
CO	1A2d	Peat	0.700	0.116	3.7	70.0	70.1	0.001	-83.500	0.0
CO	1A2d	Solid	0.645	0.001	10.0		10.0	0.000	-99.917	0.0
CO	1A2e	Biomass	0.079	0.234	8.5	70.0	70.5	0.003	197.974	0.0
CO	1A2e	Gaseous	0.018	0.012	2.9	70.0	70.1	0.000	-31.482	0.0
CO	1A2e	Liquid	0.090	0.009	3.0	70.0	70.1	0.000	-89.639	0.0
CO	1A2e	Peat	0.143	0.080	5.0	70.0	70.2	0.000	-43.964	0.0
CO	1A2e	Solid	0.053	0.008	4.7	70.0	70.2	0.000	-84.313	0.0
CO	1A2f	Biomass	0.000	0.106	9.5	70.0	70.6	0.001	147133.236	0.0
CO	1A2f	Gaseous	1.888	0.028	5.1	70.0	70.2	0.000	-98.540	0.0
CO	1A2f	Liquid	1.281	1.653	2.9	70.0	70.1	0.151	29.031	0.2
CO	1A2f	Other		0.628	10.0	70.0	70.7	0.022	NA	0.1
CO	1A2f	Solid	12.941	0.627	2.9	70.0	70.1	0.022	-95.156	0.1
CO	1A2gvii	Liquid	8.424	6.412	4.9	70.0	70.2	2.274	-23.888	0.8
CO	1A2gviii	Biomass	3.848	2.487	7.9	70.0	70.4	0.345	-35.373	0.3
CO	1A2gviii	Gaseous	0.053	0.084	6.7	70.0	70.3	0.000	59.081	0.0
CO	1A2gviii	Liquid	0.202	0.047	3.5	70.0	70.1	0.000	-76.746	0.0
CO	1A2gviii	Other	0.279	0.041	10.0		10.0	0.000	-85.489	0.0
CO	1A2gviii	Peat	0.024	0.081	9.9	70.0	70.7	0.000	235.310	0.0
CO	1A3ai(i)	Liquid	0.231	0.604	5.0	70.0	70.2	0.020	161.637	0.1
CO	1A3aii(i)	Liquid	0.631	0.229	5.0	70.0	70.2	0.003	-63.778	0.0
CO	1A3bi	Diesel oil	9.979	0.477	1.0	70.0	70.0	0.013	-95.217	0.1
CO	1A3bi	Gaseous		0.048	3.0	70.0	70.1	0.000	NA	0.0
CO	1A3bi	Gasoline	412.338	15.664	2.0	70.0	70.0	13.515	-96.201	2.0
CO	1A3bii	Diesel oil	4.107	0.836	1.0	70.0	70.0	0.038	-79.656	0.1
CO	1A3bii	Gaseous		0.008	3.0	70.0	70.1	0.000	NA	0.0
CO	1A3bii	Gasoline	18.286	0.242	2.0	70.0	70.0	0.003	-98.677	0.0
CO	1A3biii	Diesel oil	15.069	1.943	1.0	70.0	70.0	0.208	-87.104	0.3
CO	1A3biii	Gaseous		0.019	3.0	70.0	70.1	0.000	NA	0.0
CO	1A3biv	Diesel oil		0.021	1.0	70.0	70.0	0.000	NA	0.0
CO	1A3biv	Gasoline	7.906	2.679	2.0	70.0	70.0	0.395	-66.115	0.3
CO	1A3c	Liquid	0.548	0.174	2.0	70.0	70.0	0.002	-68.322	0.0
CO	1A3dii	Liquid	22.554	20.061	9.4	70.0	70.6	22.551	-11.052	2.6
CO	1A3ei	Gaseous	0.001	0.000	20.0	70.0	72.8	0.000	-98.114	0.0

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CO	1A4ai	Biomass	0.455	0.747	20.0	70.0	72.8	0.033	64.073	0.1
CO	1A4ai	Gaseous	0.031	0.027	10.0	70.0	70.7	0.000	-13.613	0.0
CO	1A4ai	Liquid	0.527	0.209	12.9	70.0	71.2	0.002	-60.418	0.0
CO	1A4ai	Peat	0.018	0.018	15.0	70.0	71.6	0.000	-2.489	0.0
CO	1A4aii	Liquid	11.336	14.795	12.8	70.0	71.2	12.452	30.511	1.9
CO	1A4bi	Biomass	124.241	138.321	20.0	70.0	72.8	1139.022	11.333	18.6
CO	1A4bi	Gaseous	0.030	0.018	10.0	70.0	70.7	0.000	-40.694	0.0
CO	1A4bi	Liquid	0.785	0.070	14.2	70.0	71.4	0.000	-91.143	0.0
CO	1A4bi	Other	0.001	0.000	10.0	70.0	70.7	0.000	-97.674	0.0
CO	1A4bi	Peat	0.130	0.008	15.0	70.0	71.6	0.000	-94.000	0.0
CO	1A4bii	Liquid	34.909	33.586	11.3	70.0	70.9	63.703	-3.790	4.4
CO	1A4ci	Biomass	1.515	1.501	20.0	70.0	72.8	0.134	-0.919	0.2
CO	1A4ci	Gaseous	0.022	0.003	10.0	70.0	70.7	0.000	-85.412	0.0
CO	1A4ci	Liquid	0.183	0.076	14.1	70.0	71.4	0.000	-58.228	0.0
CO	1A4ci	Peat	0.080	0.236	10.0	70.0	70.7	0.003	194.736	0.0
CO	1A4ci	Solid	0.007	0.003	20.0	70.0	72.8	0.000	-53.225	0.0
CO	1A4cii	Liquid	18.799	7.543	14.6	70.0	71.5	3.267	-59.875	1.0
CO	1A4ciii	Liquid	0.442	0.261	15.0	70.0	71.6	0.004	-40.930	0.0
CO	1A5a	Biomass	0.130	13.709	10.0	70.0	70.7	10.554	10447.395	1.8
CO	1A5a	Gaseous	0.115	0.366	15.7	70.0	71.7	0.008	218.278	0.0
CO	1A5a	Liquid	2.031	1.019	12.9	70.0	71.2	0.059	-49.838	0.1
CO	2C1		0.464	0.096	20.0		20.0	0.000	-79.274	0.0
CO	2C7a		0.223	0.014	20.0		20.0	0.000	-93.752	0.0
CO	2G		0.493	0.237	35.0	5.0	35.4	0.001	-51.966	0.0
Total			764.457	298.374			35.9		-60.969	19.8

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Pb	1A1a	Biomass	0.179	0.597	9.3	80.0	80.5	15.795	232.834	0.2
Pb	1A1a	Liquid	0.319	0.012	9.3	80.0	80.5	0.006	-96.324	0.0
Pb	1A1a	Other	0.001	0.128	9.5	80.0	80.6	0.728	12487.007	0.0
Pb	1A1a	Peat	1.291	0.757	2.2	80.0	80.0	25.110	-41.370	0.3
Pb	1A1a	Solid	5.751	0.027	29.4	80.0	85.2	0.035	-99.539	0.0
Pb	1A1b	Liquid	2.049	3.019	3.9	80.0	80.1	400.116	47.378	1.1
Pb	1A1b	Solid	0.048	0.005	3.0	80.0	80.1	0.001	-90.357	0.0
Pb	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Pb	1A2b	Liquid	0.010	0.001	5.0	80.0	80.2	0.000	-92.647	0.0
Pb	1A2c	Biomass	0.003	0.000	8.0	80.0	80.4	0.000	-87.649	0.0
Pb	1A2c	Liquid	0.082	0.024	4.4	80.0	80.1	0.025	-70.763	0.0
Pb	1A2c	Other	0.014	0.000	10.0	80.0	80.6	0.000	-99.529	0.0
Pb	1A2d	Biomass	4.479	2.376	1.9	80.0	80.0	247.290	-46.965	0.8
Pb	1A2d	Liquid	0.195	0.014	4.8	80.0	80.1	0.008	-92.995	0.0
Pb	1A2d	Other	0.001	0.152	29.3	80.0	85.2	1.149	15215.850	0.1
Pb	1A2d	Peat	0.499	0.001	19.9	80.0	82.4	0.000	-99.817	0.0
Pb	1A2d	Solid	1.025	0.000	30.0		30.0	0.000	-99.997	0.0
Pb	1A2e	Biomass	0.008	0.009	8.8	80.0	80.5	0.004	10.620	0.0
Pb	1A2e	Liquid	0.083	0.002	4.9	80.0	80.2	0.000	-97.818	0.0
Pb	1A2e	Peat	0.167	0.075	5.0	80.0	80.2	0.247	-55.192	0.0
Pb	1A2e	Solid	1.384	0.013	5.1	80.0	80.2	0.008	-99.040	0.0
Pb	1A2f	Biomass	0.000	0.000	9.6	80.0	80.6	0.000	157.990	0.0
Pb	1A2f	Liquid	0.062	0.006	4.5	80.0	80.1	0.002	-90.616	0.0
Pb	1A2f	Other		0.001	29.8	80.0	85.4	0.000	NA	0.0
Pb	1A2f	Solid	2.811	0.342	4.7	80.0	80.1	5.150	-87.819	0.1
Pb	1A2gviii	Biomass	0.319	0.097	9.3	80.0	80.5	0.415	-69.662	0.0
Pb	1A2gviii	Liquid	0.113	0.002	3.5	80.0	80.1	0.000	-98.330	0.0
Pb	1A2gviii	Other	0.049	0.007	12.6	80.0	81.0	0.002	-86.075	0.0
Pb	1A2gviii	Peat	0.003	0.001	10.0	80.0	80.6	0.000	-58.905	0.0
Pb	1A3aii(i)	Liquid	0.297	0.049	20.0	100.0	102.0	0.170	-83.542	0.0
Pb	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	82.471	0.0
Pb	1A3bi	Gasoline	166.003	0.002	2.0	100.0	100.0	0.000	-99.999	0.0
Pb	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	-0.137	0.0
Pb	1A3bii	Gasoline	6.400	0.000	2.0	100.0	100.0	0.000	-100.000	0.0
Pb	1A3biii	Diesel oil	0.000	0.001	1.0	100.0	100.0	0.000	36.373	0.0
Pb	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Pb	1A3biv	Gasoline	1.300	0.000	2.0	100.0	100.0	0.000	-99.996	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Pb	1A3bvi		7.220	0.457	1.0	100.0	100.0	14.314	-93.666	0.2
Pb	1A3dii	Liquid	0.015	0.008	14.2	100.0	101.0	0.005	-41.809	0.0
Pb	1A4ai	Biomass	0.020	0.033	20.0	80.0	82.5	0.049	61.137	0.0
Pb	1A4ai	Liquid	0.261	0.038	15.0	80.0	81.4	0.065	-85.498	0.0
Pb	1A4ai	Peat	0.020	0.017	15.0	80.0	81.4	0.014	-14.975	0.0
Pb	1A4bi	Biomass	0.413	0.472	20.0	80.0	82.5	10.358	14.272	0.2
Pb	1A4bi	Peat	0.111	0.007	15.0	80.0	81.4	0.002	-94.000	0.0
Pb	1A4ci	Biomass	0.065	0.066	20.0	80.0	82.5	0.205	2.240	0.0
Pb	1A4ci	Liquid	0.081	0.001	15.0	80.0	81.4	0.000	-98.546	0.0
Pb	1A4ci	Peat	0.068	0.194	10.0	80.0	80.6	1.667	184.750	0.1
Pb	1A4ci	Solid	0.035	0.000	20.0	80.0	82.5	0.000	-99.264	0.0
Pb	1A4ciii	Liquid	0.007	0.004	15.0	100.0	101.1	0.001	-41.984	0.0
Pb	1A5a	Biomass	0.015	1.234	10.0	80.0	80.6	67.698	7965.576	0.4
Pb	1A5a	Liquid	0.211	0.031	23.2	80.0	83.3	0.047	-85.113	0.0
Pb	1B1b		0.022	0.018	30.0		30.0	0.002	-16.182	0.0
Pb	2B10a		0.001	0.001	60.0		60.0	0.000	0.000	0.0
Pb	2C1		34.463	0.375	30.0		30.0	0.864	-98.913	0.0
Pb	2C2		0.001	0.024	30.0		30.0	0.003	2280.000	0.0
Pb	2C3		0.066	0.010	30.0		30.0	0.001	-85.318	0.0
Pb	2C6		0.000	0.023	30.0		30.0	0.003	5702.500	0.0
Pb	2C7a		0.374	0.003	32.9		32.9	0.000	-99.225	0.0
Pb	2C7c		80.081	0.300	30.0		30.0	0.553	-99.626	0.0
Pb	2G		0.310	1.053	35.0	283.0	285.2	616.476	239.262	1.3
Pb	5C1bv		0.000	0.001	10.0	900.0	900.1	0.008	413.562	0.0
Pb	5E		0.001	0.000	35.0	150.0	154.0	0.000	-66.585	0.0
Total			321.435	12.089			37.5		-96.239	2.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cd	1A1a	Biomass	0.019	0.084	6.8	80.0	80.3	77.508	343.741	1.4
Cd	1A1a	Liquid	0.005	0.000	13.6	80.0	81.1	0.000	-96.161	0.0
Cd	1A1a	Other	0.000	0.022	9.5	80.0	80.6	5.278	18724.394	0.4
Cd	1A1a	Peat	0.023	0.014	2.1	80.0	80.0	2.016	-39.990	0.2
Cd	1A1a	Solid	0.155	0.002	29.3	80.0	85.2	0.047	-98.749	0.0
Cd	1A1b	Liquid	0.047	0.069	3.9	80.0	80.1	51.778	47.823	1.2
Cd	1A1b	Solid	0.001	0.000	3.0	80.0	80.1	0.000	-90.357	0.0
Cd	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Cd	1A2b	Liquid	0.000	0.000	5.0	80.0	80.2	0.000	-92.647	0.0
Cd	1A2c	Biomass	0.000	0.000	15.4	80.0	81.5	0.000	-55.235	0.0
Cd	1A2c	Liquid	0.001	0.000	4.4	80.0	80.1	0.001	-71.407	0.0
Cd	1A2c	Other	0.002	0.000	10.0	80.0	80.6	0.000	-99.378	0.0
Cd	1A2d	Biomass	0.317	0.148	1.9	80.0	80.0	239.851	-53.212	2.5
Cd	1A2d	Liquid	0.003	0.000	4.9	80.0	80.2	0.001	-88.663	0.0
Cd	1A2d	Other	0.000	0.001	19.1	80.0	82.2	0.012	634.549	0.0
Cd	1A2d	Peat	0.008	0.000	30.0		30.0	0.000	-99.954	0.0
Cd	1A2d	Solid	0.024	0.000	30.0		30.0	0.000	-99.999	0.0
Cd	1A2e	Biomass	0.001	0.001	8.8	80.0	80.5	0.012	6.881	0.0
Cd	1A2e	Liquid	0.001	0.000	4.9	80.0	80.2	0.000	-97.889	0.0
Cd	1A2e	Peat	0.003	0.001	5.0	80.0	80.2	0.017	-55.173	0.0
Cd	1A2e	Solid	0.032	0.000	6.2	80.0	80.2	0.001	-98.953	0.0
Cd	1A2f	Biomass	0.000	0.000	9.8	80.0	80.6	0.000	200.332	0.0
Cd	1A2f	Liquid	0.001	0.000	13.9	80.0	81.2	0.000	-77.308	0.0
Cd	1A2f	Other		0.000	29.9	80.0	85.4	0.001	NA	0.0
Cd	1A2f	Solid	0.068	0.008	4.6	80.0	80.1	0.667	-88.538	0.1
Cd	1A2gvii	Liquid	0.003	0.004	4.9	100.0	100.1	0.226	22.942	0.1
Cd	1A2gviii	Biomass	0.036	0.012	9.3	80.0	80.5	1.507	-67.321	0.2
Cd	1A2gviii	Liquid	0.001	0.000	3.5	80.0	80.1	0.000	-97.719	0.0
Cd	1A2gviii	Other	0.028	0.001	20.2	80.0	82.5	0.012	-96.375	0.0
Cd	1A2gviii	Peat	0.000	0.000	10.0	80.0	80.6	0.000	-57.335	0.0
Cd	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	82.471	0.0
Cd	1A3bi	Gasoline	0.000	0.000	2.0	100.0	100.0	0.001	-35.634	0.0
Cd	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	-0.137	0.0
Cd	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
Cd	1A3biii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	36.373	0.0
Cd	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Cd	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	147.742	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cd	1A3bvi		0.002	0.002	1.0	100.0	100.0	0.049	11.444	0.0
Cd	1A3c	Liquid	0.001	0.000	2.0	100.0	100.0	0.001	-69.541	0.0
Cd	1A3dii	Liquid	0.001	0.001	14.2	100.0	101.0	0.008	-50.255	0.0
Cd	1A4ai	Biomass	0.006	0.010	20.0	80.0	82.5	1.106	66.985	0.2
Cd	1A4ai	Liquid	0.003	0.000	15.0	80.0	81.4	0.002	-85.529	0.0
Cd	1A4ai	Peat	0.000	0.000	15.0	80.0	81.4	0.001	-14.975	0.0
Cd	1A4aii	Liquid	0.001	0.001	12.8	100.0	100.8	0.015	-31.083	0.0
Cd	1A4bi	Biomass	0.124	0.142	20.0	80.0	82.5	231.812	14.272	2.5
Cd	1A4bi	Peat	0.002	0.000	15.0	80.0	81.4	0.000	-94.000	0.0
Cd	1A4bii	Liquid	0.000	0.001	11.3	100.0	100.6	0.005	24.930	0.0
Cd	1A4ci	Biomass	0.020	0.019	20.0	80.0	82.5	4.227	-1.969	0.3
Cd	1A4ci	Liquid	0.001	0.000	15.0	80.0	81.4	0.000	-98.550	0.0
Cd	1A4ci	Peat	0.001	0.003	10.0	80.0	80.6	0.112	184.750	0.1
Cd	1A4ci	Solid	0.001	0.000	20.0	80.0	82.5	0.000	-98.359	0.0
Cd	1A4cii	Liquid	0.003	0.002	14.6	100.0	101.1	0.093	-21.320	0.0
Cd	1A4ciii	Liquid	0.001	0.000	15.0	100.0	101.1	0.002	-41.984	0.0
Cd	1A5a	Biomass	0.002	0.137	10.0	80.0	80.6	207.831	7965.576	2.3
Cd	1A5a	Liquid	0.003	0.000	23.2	80.0	83.3	0.003	-82.260	0.0
Cd	1B1b		0.000	0.000	30.0		30.0	0.000	440.000	0.0
Cd	2C1		0.390	0.006	30.0		30.0	0.064	-98.343	0.0
Cd	2C2		0.003	0.000	30.0		30.0	0.000	-89.832	0.0
Cd	2C3		0.023	0.003	30.0		30.0	0.015	-86.365	0.0
Cd	2C6		0.850	0.009	30.0		30.0	0.123	-98.946	0.1
Cd	2C7a		0.000	0.000	30.0		30.0	0.000	-90.000	0.0
Cd	2C7c		4.203	0.035	30.0		30.0	1.884	-99.165	0.2
Cd	2G		0.049	0.024	35.0	846.0	846.7	718.048	-50.119	4.3
Cd	5C1bv		0.000	0.000	10.0	900.0	900.1	0.053	413.562	0.0
Cd	5E		0.002	0.001	35.0	100.0	105.9	0.010	-66.608	0.0
Total			6.685	0.767			39.3		-88.532	6.4

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Hg	1A1a	Biomass	0.004	0.053	32.4	80.0	86.3	86.122	1222.824	6.0
Hg	1A1a	Liquid	0.001	0.000	32.8	80.0	86.5	0.000	-93.988	0.0
Hg	1A1a	Other	0.000	0.005	31.9	80.0	86.1	0.704	20710.327	0.5
Hg	1A1a	Peat	0.062	0.037	25.6	80.0	84.0	39.754	-39.948	4.0
Hg	1A1a	Solid	0.172	0.016	49.0	80.0	93.8	8.948	-90.881	1.9
Hg	1A1b	Liquid	0.010	0.014	3.9	80.0	80.1	5.383	49.386	1.5
Hg	1A1b	Solid	0.000	0.000	3.0	80.0	80.1	0.000	-90.357	0.0
Hg	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Hg	1A2a	Solid	0.017	0.000	3.0	80.0	80.1	0.000	-99.660	0.0
Hg	1A2b	Liquid	0.000	0.000	5.0	80.0	80.2	0.000	-76.658	0.0
Hg	1A2c	Biomass	0.000	0.000	29.6	80.0	85.3	0.002	15.378	0.0
Hg	1A2c	Liquid	0.000	0.000	4.4	80.0	80.1	0.000	-72.123	0.0
Hg	1A2c	Other	0.000	0.000	10.0	80.0	80.6	0.000	-94.026	0.0
Hg	1A2d	Biomass	0.089	0.066	16.2	80.0	81.6	119.513	-25.724	7.0
Hg	1A2d	Liquid	0.000	0.000	16.3	80.0	81.6	0.001	-60.208	0.0
Hg	1A2d	Other	0.000	0.000	45.7	80.0	92.2	0.007	298.128	0.1
Hg	1A2d	Peat	0.016	0.001	50.0		50.0	0.020	-91.009	0.1
Hg	1A2d	Solid	0.018	0.000	50.0		50.0	0.000	-99.590	0.0
Hg	1A2e	Biomass	0.000	0.000	8.8	80.0	80.5	0.003	106.634	0.0
Hg	1A2e	Liquid	0.000	0.000	5.2	80.0	80.2	0.000	-97.964	0.0
Hg	1A2e	Peat	0.003	0.002	5.0	80.0	80.2	0.063	-53.911	0.2
Hg	1A2e	Solid	0.006	0.000	42.9	80.0	90.8	0.006	-93.712	0.0
Hg	1A2f	Biomass	0.000	0.000	43.5	80.0	91.1	0.000	1793.970	0.0
Hg	1A2f	Liquid	0.000	0.022	50.0	80.0	94.3	17.097	29763.664	2.7
Hg	1A2f	Other		0.005	50.0	80.0	94.3	0.992	NA	0.6
Hg	1A2f	Solid	0.017	0.008	39.5	80.0	89.2	1.890	-55.002	0.9
Hg	1A2gviii	Biomass	0.005	0.004	16.6	80.0	81.7	0.459	-10.931	0.4
Hg	1A2gviii	Liquid	0.000	0.000	49.4	80.0	94.0	0.001	39.817	0.0
Hg	1A2gviii	Other	0.171	0.036	50.0	80.0	94.3	46.495	-79.197	4.4
Hg	1A2gviii	Peat	0.000	0.001	18.7	80.0	82.2	0.012	202.067	0.1
Hg	1A3bi	Diesel oil	0.002	0.003	1.0	100.0	100.0	0.416	82.471	0.4
Hg	1A3bi	Gasoline	0.016	0.010	2.0	100.0	100.0	4.146	-35.634	1.3
Hg	1A3bii	Diesel oil	0.001	0.001	1.0	100.0	100.0	0.075	-0.137	0.2
Hg	1A3bii	Gasoline	0.001	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
Hg	1A3biii	Diesel oil	0.005	0.007	1.0	100.0	100.0	2.109	36.373	0.9
Hg	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Hg	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.004	147.742	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Hg	1A3dii	Liquid	0.003	0.002	14.2	100.0	101.0	0.147	-26.011	0.2
Hg	1A4ai	Biomass	0.001	0.002	20.0	80.0	82.5	0.074	68.424	0.2
Hg	1A4ai	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-85.567	0.0
Hg	1A4ai	Peat	0.000	0.000	15.0	80.0	81.4	0.002	-14.975	0.0
Hg	1A4bi	Biomass	0.021	0.024	20.0	80.0	82.5	15.571	14.272	2.5
Hg	1A4bi	Peat	0.002	0.000	15.0	80.0	81.4	0.000	-94.000	0.0
Hg	1A4ci	Biomass	0.003	0.003	20.0	80.0	82.5	0.281	-2.515	0.3
Hg	1A4ci	Liquid	0.000	0.000	15.0	80.0	81.4	0.000	-98.554	0.0
Hg	1A4ci	Peat	0.001	0.003	10.0	80.0	80.6	0.235	184.750	0.3
Hg	1A4ci	Solid	0.000	0.000	20.0	80.0	82.5	0.000	-73.035	0.0
Hg	1A4ciii	Liquid	0.002	0.001	15.0	100.0	101.1	0.039	-41.984	0.1
Hg	1A5a	Biomass	0.000	0.014	10.0	80.0	80.6	5.026	7965.576	1.4
Hg	1A5a	Liquid	0.000	0.000	23.2	80.0	83.3	0.003	-37.428	0.0
Hg	1B1b		0.000	0.000	100.0		100.0	0.000	0.000	0.0
Hg	2B10a		0.369	0.035	99.3		99.3	49.773	-90.509	4.5
Hg	2C1		0.005	0.080	50.0		50.0	66.312	1505.875	5.2
Hg	2C2		0.000	0.002	50.0		50.0	0.037	1107.470	0.1
Hg	2C6			0.003	50.0		50.0	0.122	NA	0.2
Hg	2C7a		0.007	0.000	100.0		100.0	0.000	-99.939	0.0
Hg	2C7c		0.028	0.005	50.0		50.0	0.247	-82.488	0.3
Hg	2G		0.000	0.000	35.0	777.0	777.8	0.015	239.262	0.1
Hg	5C1bv		0.006	0.025	10.0	900.0	900.1	2122.023	326.645	29.6
Hg	5E		0.002	0.001	35.0	100.0	105.9	0.025	-66.608	0.1
Total			1.086	0.493			50.9		-54.606	32.7

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
As	1A1a	Biomass	0.004	0.025	13.5	80.0	81.1	1.496	469.934	0.1

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
As	1A1a	Liquid	0.029	0.001	4.8	80.0	80.1	0.001	-97.348	0.0
As	1A1a	Other	0.000	0.020	26.4	80.0	84.2	1.078	86534.178	0.1
As	1A1a	Peat	0.628	0.401	2.8	80.0	80.0	386.132	-36.212	1.3
As	1A1a	Solid	1.618	0.033	29.5	80.0	85.3	2.887	-97.990	0.1
As	1A1b	Liquid	0.336	0.497	3.9	80.0	80.1	594.055	47.837	1.6
As	1A1b	Solid	0.008	0.001	3.0	80.0	80.1	0.001	-90.357	0.0
As	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
As	1A2b	Liquid	0.001	0.000	5.0	80.0	80.2	0.000	-91.887	0.0
As	1A2c	Biomass	0.000	0.000	25.1	80.0	83.9	0.000	321.311	0.0
As	1A2c	Liquid	0.007	0.002	4.4	80.0	80.1	0.009	-71.036	0.0
As	1A2c	Other	0.000	0.000	10.0	80.0	80.6	0.000	-99.377	0.0
As	1A2d	Biomass	0.160	0.103	4.0	80.0	80.1	25.495	-35.714	0.3
As	1A2d	Liquid	0.018	0.002	6.3	80.0	80.2	0.011	-88.256	0.0
As	1A2d	Other	0.000	0.001	27.9	80.0	84.7	0.003	3751.620	0.0
As	1A2d	Peat	0.238	0.001	11.4	80.0	80.8	0.002	-99.599	0.0
As	1A2d	Solid	0.229	0.000	30.0		30.0	0.000	-99.979	0.0
As	1A2e	Biomass	0.000	0.000	8.8	80.0	80.5	0.000	23.700	0.0
As	1A2e	Liquid	0.007	0.000	5.0	80.0	80.2	0.000	-98.538	0.0
As	1A2e	Peat	0.080	0.036	5.0	80.0	80.2	3.084	-55.108	0.1
As	1A2e	Solid	0.228	0.004	14.9	80.0	81.4	0.039	-98.260	0.0
As	1A2f	Biomass	0.000	0.000	12.9	80.0	81.0	0.000	296.206	0.0
As	1A2f	Liquid	0.005	0.001	23.1	80.0	83.3	0.003	-75.365	0.0
As	1A2f	Other		0.000	29.8	80.0	85.4	0.000	NA	0.0
As	1A2f	Solid	0.491	0.056	4.6	80.0	80.1	7.692	-88.498	0.2
As	1A2gviii	Biomass	0.007	0.002	9.1	80.0	80.5	0.015	-65.133	0.0
As	1A2gviii	Liquid	0.009	0.000	3.5	80.0	80.1	0.000	-98.113	0.0
As	1A2gviii	Other	0.001	0.001	26.9	80.0	84.4	0.002	14.258	0.0
As	1A2gviii	Peat	0.001	0.001	12.1	80.0	80.9	0.003	-11.003	0.0
As	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	82.471	0.0
As	1A3bi	Gasoline	0.001	0.000	2.0	100.0	100.0	0.000	-35.634	0.0
As	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	-0.137	0.0
As	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
As	1A3biii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	36.373	0.0
As	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
As	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	147.742	0.0
As	1A3bvi		0.036	0.041	1.0	100.0	100.0	6.204	11.412	0.2
As	1A3dii	Liquid	0.028	0.005	14.2	100.0	101.0	0.091	-82.769	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
As	1A4ai	Biomass	0.002	0.003	20.0	80.0	82.5	0.027	68.424	0.0
As	1A4ai	Liquid	0.021	0.003	15.0	80.0	81.4	0.023	-85.509	0.0
As	1A4ai	Peat	0.010	0.008	15.0	80.0	81.4	0.170	-14.975	0.0
As	1A4bi	Biomass	0.041	0.047	20.0	80.0	82.5	5.681	14.272	0.2
As	1A4bi	Peat	0.053	0.003	15.0	80.0	81.4	0.025	-94.000	0.0
As	1A4ci	Biomass	0.007	0.006	20.0	80.0	82.5	0.101	-2.972	0.0
As	1A4ci	Liquid	0.006	0.000	15.0	80.0	81.4	0.000	-98.547	0.0
As	1A4ci	Peat	0.032	0.092	10.0	80.0	80.6	20.762	184.750	0.3
As	1A4ci	Solid	0.006	0.001	20.0	80.0	82.5	0.001	-91.835	0.0
As	1A4ciii	Liquid	0.002	0.001	15.0	100.0	101.1	0.006	-41.984	0.0
As	1A5a	Biomass	0.000	0.027	10.0	80.0	80.6	1.834	7965.576	0.1
As	1A5a	Liquid	0.017	0.003	23.2	80.0	83.3	0.020	-83.795	0.0
As	1B1b		0.004	0.003	30.0		30.0	0.003	-30.250	0.0
As	2C1		0.411	0.050	30.0		30.0	0.851	-87.785	0.1
As	2C2		0.002	0.001	30.0		30.0	0.000	-45.000	0.0
As	2C3		0.008	0.002	30.0		30.0	0.001	-76.875	0.0
As	2C6		1.700	0.012	30.0		30.0	0.053	-99.266	0.0
As	2C7a		0.113	0.068	27.0		27.0	1.253	-40.044	0.1
As	2C7c		28.000	0.063	30.0		30.0	1.357	-99.774	0.1
As	2G		0.001	0.002	35.0	877.0	877.7	0.922	239.262	0.1
As	5C1bv		0.000	0.001	10.0	900.0	900.1	0.086	413.562	0.0
As	5E		0.003	0.001	35.0	107.0	112.6	0.006	-66.466	0.0
Total			34.816	1.632			32.6		-95.311	2.2

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cr	1A1a	Biomass	0.117	0.416	8.9	80.0	80.5	6.176	256.885	1.0
Cr	1A1a	Liquid	0.015	0.001	13.4	80.0	81.1	0.000	-95.554	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cr	1A1a	Other	0.001	0.097	9.5	80.0	80.6	0.334	12373.717	0.2
Cr	1A1a	Peat	1.076	0.626	2.2	80.0	80.0	13.819	-41.819	1.5
Cr	1A1a	Solid	6.765	0.082	29.7	80.0	85.3	0.271	-98.785	0.2
Cr	1A1b	Liquid	2.574	3.821	3.9	80.0	80.1	516.051	48.438	9.1
Cr	1A1b	Solid	0.060	0.006	3.0	80.0	80.1	0.001	-90.357	0.0
Cr	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Cr	1A2b	Liquid	0.001	0.000	3.7	80.0	80.1	0.000	-70.936	0.0
Cr	1A2b	Solid	1.845	0.196	4.8	80.0	80.1	1.356	-89.391	0.5
Cr	1A2c	Biomass	0.000	0.005	28.8	80.0	85.0	0.001	1314.489	0.0
Cr	1A2c	Liquid	0.003	0.001	4.4	80.0	80.1	0.000	-71.041	0.0
Cr	1A2c	Other	0.011	0.000	10.0	80.0	80.6	0.000	-99.644	0.0
Cr	1A2d	Biomass	0.558	0.088	19.1	80.0	82.3	0.287	-84.265	0.2
Cr	1A2d	Liquid	0.009	0.002	16.8	80.0	81.7	0.000	-73.837	0.0
Cr	1A2d	Other	0.001	0.006	16.4	80.0	81.7	0.001	781.745	0.0
Cr	1A2d	Peat	0.411	0.000	30.0		30.0	0.000	-99.905	0.0
Cr	1A2d	Solid	1.263	0.000	30.0		30.0	0.000	-99.995	0.0
Cr	1A2e	Biomass	0.006	0.006	8.8	80.0	80.5	0.002	3.371	0.0
Cr	1A2e	Liquid	0.003	0.000	5.0	80.0	80.2	0.000	-97.846	0.0
Cr	1A2e	Peat	0.138	0.062	5.0	80.0	80.2	0.135	-55.193	0.1
Cr	1A2e	Solid	1.752	0.017	5.1	80.0	80.2	0.010	-99.041	0.0
Cr	1A2f	Biomass	0.000	0.000	9.5	80.0	80.6	0.000	180.277	0.0
Cr	1A2f	Liquid	0.002	0.018	29.6	80.0	85.3	0.013	673.354	0.0
Cr	1A2f	Other		0.040	30.0	80.0	85.4	0.063	NA	0.1
Cr	1A2f	Solid	3.365	0.436	4.6	80.0	80.1	6.724	-87.044	1.0
Cr	1A2gvii	Liquid	0.015	0.018	4.9	100.0	100.1	0.018	22.942	0.1
Cr	1A2gviii	Biomass	0.817	0.078	8.9	80.0	80.5	0.217	-90.452	0.2
Cr	1A2gviii	Liquid	0.016	0.000	3.5	80.0	80.1	0.000	-99.398	0.0
Cr	1A2gviii	Other	0.024	0.012	22.2	80.0	83.0	0.005	-52.153	0.0
Cr	1A2gviii	Peat	0.002	0.001	9.6	80.0	80.6	0.000	-57.267	0.0
Cr	1A3bi	Diesel oil	0.003	0.005	1.0	100.0	100.0	0.001	82.471	0.0
Cr	1A3bi	Gasoline	0.011	0.007	2.0	100.0	100.0	0.003	-35.634	0.0
Cr	1A3bii	Diesel oil	0.002	0.002	1.0	100.0	100.0	0.000	-0.137	0.0
Cr	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
Cr	1A3biii	Diesel oil	0.008	0.011	1.0	100.0	100.0	0.007	36.373	0.0
Cr	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Cr	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	147.742	0.0
Cr	1A3bvi		1.143	1.274	1.0	100.0	100.0	89.378	11.473	3.8

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cr	1A3c	Liquid	0.003	0.001	2.0	100.0	100.0	0.000	-69.541	0.0
Cr	1A3dii	Liquid	0.030	0.006	14.2	100.0	101.0	0.002	-81.517	0.0
Cr	1A4ai	Biomass	0.068	0.114	20.0	80.0	82.5	0.487	68.424	0.3
Cr	1A4ai	Liquid	0.010	0.002	15.0	80.0	81.4	0.000	-85.509	0.0
Cr	1A4ai	Peat	0.017	0.014	15.0	80.0	81.4	0.007	-14.975	0.0
Cr	1A4aii	Liquid	0.007	0.005	12.8	100.0	100.8	0.001	-31.083	0.0
Cr	1A4bi	Biomass	1.445	1.651	20.0	80.0	82.5	102.158	14.272	4.0
Cr	1A4bi	Peat	0.091	0.005	15.0	80.0	81.4	0.001	-94.000	0.0
Cr	1A4bii	Liquid	0.002	0.003	11.3	100.0	100.6	0.000	24.930	0.0
Cr	1A4ci	Biomass	0.228	0.221	20.0	80.0	82.5	1.824	-2.994	0.5
Cr	1A4ci	Liquid	0.003	0.000	15.0	80.0	81.4	0.000	-98.547	0.0
Cr	1A4ci	Peat	0.056	0.159	10.0	80.0	80.6	0.910	184.750	0.4
Cr	1A4ci	Solid	0.044	0.000	20.0	80.0	82.5	0.000	-99.254	0.0
Cr	1A4cii	Liquid	0.015	0.012	14.6	100.0	101.1	0.007	-21.320	0.0
Cr	1A4ciii	Liquid	0.003	0.002	15.0	100.0	101.1	0.000	-41.984	0.0
Cr	1A5a	Biomass	0.012	0.960	10.0	80.0	80.6	32.972	7965.576	2.3
Cr	1A5a	Liquid	0.009	0.002	23.2	80.0	83.3	0.000	-80.678	0.0
Cr	1B1b		0.003	0.013	30.0		30.0	0.001	331.333	0.0
Cr	2C1		19.554	1.967	30.0		30.0	19.192	-89.938	1.8
Cr	2C2		2.000	0.972	30.0		30.0	4.684	-51.400	0.9
Cr	2C7a		0.145	0.001	30.0		30.0	0.000	-99.415	0.0
Cr	2C7c		0.520	0.007	30.0		30.0	0.000	-98.643	0.0
Cr	2G		0.006	0.021	35.0	862.0	862.7	1.799	239.262	0.5
Cr	5C1bv		0.000	0.001	10.0	900.0	900.1	0.001	413.562	0.0
Cr	5E		0.003	0.001	35.0	108.0	113.5	0.000	-66.526	0.0
Total			47.670	13.473			28.3		-71.736	11.3

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cu	1A1a	Biomass	0.174	0.753	7.8	80.0	80.4	2.611	333.759	0.5
Cu	1A1a	Liquid	0.034	0.002	7.7	80.0	80.4	0.000	-95.475	0.0
Cu	1A1a	Other	0.001	0.154	10.1	80.0	80.6	0.110	12968.065	0.1
Cu	1A1a	Peat	1.662	0.991	2.1	80.0	80.0	4.479	-40.356	0.7
Cu	1A1a	Solid	5.471	0.037	29.5	80.0	85.3	0.007	-99.320	0.0
Cu	1A1b	Liquid	0.902	1.338	3.9	80.0	80.1	8.180	48.321	1.0
Cu	1A1b	Solid	0.021	0.002	3.0	80.0	80.1	0.000	-90.357	0.0
Cu	1A2a	Biomass		0.001	10.0	80.0	80.6	0.000	NA	0.0
Cu	1A2b	Liquid	0.001	0.000	5.0	80.0	80.2	0.000	-74.243	0.0
Cu	1A2c	Biomass	0.001	0.003	26.5	80.0	84.3	0.000	91.589	0.0
Cu	1A2c	Liquid	0.008	0.002	4.4	80.0	80.1	0.000	-70.824	0.0
Cu	1A2c	Other	0.016	0.000	10.0	80.0	80.6	0.000	-99.390	0.0
Cu	1A2d	Biomass	0.813	0.210	25.3	80.0	83.9	0.221	-74.158	0.2
Cu	1A2d	Liquid	0.022	0.049	28.9	80.0	85.1	0.012	124.276	0.0
Cu	1A2d	Other	0.001	0.042	27.2	80.0	84.5	0.009	2919.081	0.0
Cu	1A2d	Peat	0.646	0.003	30.0		30.0	0.000	-99.568	0.0
Cu	1A2d	Solid	0.648	0.000	30.0		30.0	0.000	-99.996	0.0
Cu	1A2e	Biomass	0.009	0.009	8.8	80.0	80.5	0.000	-6.720	0.0
Cu	1A2e	Liquid	0.008	0.000	4.9	80.0	80.2	0.000	-97.820	0.0
Cu	1A2e	Peat	0.216	0.097	5.0	80.0	80.2	0.043	-55.199	0.1
Cu	1A2e	Solid	0.613	0.006	6.3	80.0	80.2	0.000	-98.949	0.0
Cu	1A2f	Biomass	0.000	0.001	9.6	80.0	80.6	0.000	189.322	0.0
Cu	1A2f	Liquid	0.006	0.001	11.1	80.0	80.8	0.000	-83.282	0.0
Cu	1A2f	Other		0.001	29.6	80.0	85.3	0.000	NA	0.0
Cu	1A2f	Solid	1.280	0.152	4.7	80.0	80.1	0.105	-88.153	0.1
Cu	1A2gvii	Liquid	0.503	0.618	4.9	100.0	100.1	2.730	22.942	0.6
Cu	1A2gviii	Biomass	0.699	0.114	9.2	80.0	80.5	0.060	-83.635	0.1
Cu	1A2gviii	Liquid	0.022	0.000	5.4	80.0	80.2	0.000	-99.047	0.0
Cu	1A2gviii	Other	0.037	0.011	13.7	80.0	81.2	0.001	-70.884	0.0
Cu	1A2gviii	Peat	0.003	0.001	9.9	80.0	80.6	0.000	-58.780	0.0
Cu	1A3bi	Diesel oil	0.002	0.003	1.0	100.0	100.0	0.000	82.471	0.0
Cu	1A3bi	Gasoline	0.008	0.005	2.0	100.0	100.0	0.000	-35.634	0.0
Cu	1A3bii	Diesel oil	0.001	0.001	1.0	100.0	100.0	0.000	-0.137	0.0
Cu	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
Cu	1A3biii	Diesel oil	0.006	0.008	1.0	100.0	100.0	0.000	36.373	0.0
Cu	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Cu	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	147.742	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Cu	1A3bvi		49.238	28.684	1.0	100.0	100.0	5858.098	-41.745	25.9
Cu	1A3c	Liquid	0.103	0.031	2.0	100.0	100.0	0.007	-69.541	0.0
Cu	1A3dii	Liquid	0.100	0.057	14.2	100.0	101.0	0.024	-42.397	0.1
Cu	1A4ai	Biomass	0.013	0.020	20.0	80.0	82.5	0.002	53.545	0.0
Cu	1A4ai	Liquid	0.026	0.004	15.0	80.0	81.4	0.000	-85.498	0.0
Cu	1A4ai	Peat	0.026	0.022	15.0	80.0	81.4	0.002	-14.975	0.0
Cu	1A4aii	Liquid	0.227	0.156	12.8	100.0	100.8	0.177	-31.083	0.1
Cu	1A4bi	Biomass	0.248	0.283	20.0	80.0	82.5	0.388	14.272	0.2
Cu	1A4bi	Peat	0.143	0.009	15.0	80.0	81.4	0.000	-94.000	0.0
Cu	1A4bii	Liquid	0.075	0.093	11.3	100.0	100.6	0.063	24.930	0.1
Cu	1A4ci	Biomass	0.039	0.040	20.0	80.0	82.5	0.008	2.130	0.0
Cu	1A4ci	Liquid	0.008	0.000	15.0	80.0	81.4	0.000	-98.546	0.0
Cu	1A4ci	Peat	0.088	0.251	10.0	80.0	80.6	0.291	184.750	0.2
Cu	1A4ci	Solid	0.016	0.000	20.0	80.0	82.5	0.000	-98.313	0.0
Cu	1A4cii	Liquid	0.499	0.392	14.6	100.0	101.1	1.119	-21.320	0.4
Cu	1A4ciii	Liquid	0.049	0.028	15.0	100.0	101.1	0.006	-41.984	0.0
Cu	1A5a	Biomass	0.017	1.398	10.0	80.0	80.6	9.048	7965.576	1.0
Cu	1A5a	Liquid	0.029	0.013	23.2	80.0	83.3	0.001	-56.744	0.0
Cu	1B1b		0.004	0.014	30.0		30.0	0.000	261.500	0.0
Cu	2B10a		0.270	0.003	30.0		30.0	0.000	-98.852	0.0
Cu	2C1		5.540	0.381	30.0		30.0	0.093	-93.125	0.1
Cu	2C2		0.003	0.022	30.0		30.0	0.000	776.027	0.0
Cu	2C6			0.012	30.0		30.0	0.000	NA	0.0
Cu	2C7a		4.803	0.003	30.0		30.0	0.000	-99.935	0.0
Cu	2C7c		80.257	0.318	30.0		30.0	0.065	-99.604	0.1
Cu	2G		0.224	0.623	35.0	350.0	351.7	34.218	178.532	2.0
Cu	5C1bv		0.000	0.000	10.0	900.0	900.1	0.000	413.562	0.0
Cu	5E		0.008	0.003	35.0	103.0	108.8	0.000	-66.592	0.0
Total			156.893	37.478			77.0		-76.112	26.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Ni	1A1a	Biomass	0.101	0.436	8.9	80.0	80.5	15.948	331.851	0.6
Ni	1A1a	Liquid	3.688	0.135	12.6	80.0	81.0	1.553	-96.331	0.2
Ni	1A1a	Other	0.001	0.130	9.5	80.0	80.6	1.417	19251.024	0.2
Ni	1A1a	Peat	1.066	0.614	2.2	80.0	80.0	31.280	-42.357	0.9
Ni	1A1a	Solid	5.396	0.122	29.9	80.0	85.4	1.410	-97.734	0.2
Ni	1A1b	Liquid	1.875	0.004	17.2	80.0	81.8	0.001	-99.813	0.0
Ni	1A1b	Solid	0.003	0.005	3.0	80.0	80.1	0.002	35.457	0.0
Ni	1A2a	Biomass		0.000	10.0	80.0	80.6	0.000	NA	0.0
Ni	1A2b	Liquid	0.124	0.029	5.0	80.0	80.2	0.069	-76.658	0.0
Ni	1A2b	Solid	1.115	0.008	5.0	80.0	80.2	0.005	-99.294	0.0
Ni	1A2c	Biomass	0.000	0.012	29.6	80.0	85.3	0.015	3986.640	0.0
Ni	1A2c	Liquid	0.833	0.286	4.4	80.0	80.1	6.799	-65.641	0.4
Ni	1A2c	Other	0.009	0.000	10.0	80.0	80.6	0.000	-99.585	0.0
Ni	1A2d	Biomass	0.475	0.147	24.6	80.0	83.7	1.967	-69.005	0.2
Ni	1A2d	Liquid	2.234	0.128	6.0	80.0	80.2	1.357	-94.284	0.2
Ni	1A2d	Other	0.001	0.016	11.6	80.0	80.8	0.020	2468.077	0.0
Ni	1A2d	Solid	1.036	0.000	29.7	80.0	85.3	0.000	-99.978	0.0
Ni	1A2e	Biomass	0.005	0.009	8.8	80.0	80.5	0.007	69.750	0.0
Ni	1A2e	Liquid	1.007	0.022	4.9	80.0	80.2	0.039	-97.842	0.0
Ni	1A2e	Peat	0.138	0.062	5.0	80.0	80.2	0.316	-55.216	0.1
Ni	1A2e	Solid	1.401	0.013	5.1	80.0	80.2	0.015	-99.041	0.0
Ni	1A2f	Biomass	0.000	0.000	9.6	80.0	80.6	0.000	163.142	0.0
Ni	1A2f	Liquid	0.676	0.056	3.5	80.0	80.1	0.262	-91.684	0.1
Ni	1A2f	Other		0.002	29.9	80.0	85.4	0.000	NA	0.0
Ni	1A2f	Solid	2.771	0.347	4.7	80.0	80.1	9.985	-87.488	0.5
Ni	1A2gvii	Liquid	0.021	0.025	4.9	100.0	100.1	0.084	22.942	0.0
Ni	1A2gviii	Biomass	0.212	0.068	8.9	80.0	80.5	0.393	-67.679	0.1
Ni	1A2gviii	Liquid	1.361	0.020	3.7	80.0	80.1	0.033	-98.527	0.0
Ni	1A2gviii	Other	0.021	0.009	23.2	80.0	83.3	0.007	-57.756	0.0
Ni	1A2gviii	Peat	0.002	0.001	10.0	80.0	80.6	0.000	-71.191	0.0
Ni	1A3bi	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	82.471	0.0
Ni	1A3bi	Gasoline	0.004	0.003	2.0	100.0	100.0	0.001	-35.634	0.0
Ni	1A3bii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	-0.137	0.0
Ni	1A3bii	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
Ni	1A3biii	Diesel oil	0.000	0.000	1.0	100.0	100.0	0.000	36.373	0.0
Ni	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Ni	1A3biv	Gasoline	0.000	0.000	2.0	100.0	100.0	0.000	147.742	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Ni	1A3bvi		0.164	0.183	1.0	100.0	100.0	4.326	11.466	0.3
Ni	1A3c	Liquid	0.004	0.001	2.0	100.0	100.0	0.000	-69.541	0.0
Ni	1A3dii	Liquid	1.280	0.177	14.2	100.0	101.0	4.116	-86.204	0.3
Ni	1A4ai	Biomass	0.058	0.098	20.0	80.0	82.5	0.841	68.424	0.1
Ni	1A4ai	Liquid	3.134	0.454	15.0	80.0	81.4	17.679	-85.509	0.7
Ni	1A4ai	Peat	0.017	0.014	15.0	80.0	81.4	0.017	-14.975	0.0
Ni	1A4aii	Liquid	0.009	0.006	12.8	100.0	100.8	0.005	-31.083	0.0
Ni	1A4bi	Biomass	1.239	1.415	20.0	80.0	82.5	176.237	14.272	2.1
Ni	1A4bi	Peat	0.091	0.005	15.0	80.0	81.4	0.003	-94.000	0.0
Ni	1A4bii	Liquid	0.003	0.004	11.3	100.0	100.6	0.002	24.930	0.0
Ni	1A4ci	Biomass	0.195	0.189	20.0	80.0	82.5	3.147	-2.989	0.3
Ni	1A4ci	Liquid	0.971	0.014	15.0	80.0	81.4	0.017	-98.547	0.0
Ni	1A4ci	Peat	0.056	0.159	10.0	80.0	80.6	2.138	184.750	0.2
Ni	1A4ci	Solid	0.035	0.000	20.0	80.0	82.5	0.000	-99.254	0.0
Ni	1A4cii	Liquid	0.021	0.016	14.6	100.0	101.1	0.034	-21.320	0.0
Ni	1A4ciii	Liquid	0.056	0.032	15.0	100.0	101.1	0.138	-41.984	0.1
Ni	1A5a	Biomass	0.010	0.823	10.0	80.0	80.6	56.882	7965.576	1.2
Ni	1A5a	Liquid	2.531	0.373	23.2	80.0	83.3	12.461	-85.279	0.6
Ni	1B1b		0.002	0.016	30.0		30.0	0.003	706.500	0.0
Ni	2B10a		1.052	0.010	30.0		30.0	0.001	-99.068	0.0
Ni	2C1		2.002	0.654	30.0		30.0	4.976	-67.349	0.4
Ni	2C2		0.017	0.054	30.0		30.0	0.034	216.471	0.0
Ni	2C7a		0.508	0.000	60.0		60.0	0.000	-99.951	0.0
Ni	2C7b		5.000	0.912	30.0		30.0	9.683	-81.760	0.5
Ni	2C7c		31.000	0.419	30.0		30.0	2.048	-98.647	0.2
Ni	2G		0.036	0.051	35.0	400.0	401.5	5.513	43.223	0.4
Ni	5C1bv		0.000	0.001	10.0	900.0	900.1	0.005	413.562	0.0
Total			78.439	8.793			19.3		-88.791	3.1

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Zn	1A1a	Biomass	2.327	10.356	5.6	80.0	80.2	48.293	345.122	1.7
Zn	1A1a	Liquid	0.170	0.007	5.0	80.0	80.2	0.000	-95.713	0.0
Zn	1A1a	Other	0.016	3.493	9.5	80.0	80.6	5.544	21932.942	0.6
Zn	1A1a	Peat	2.706	1.527	2.0	80.0	80.0	1.045	-43.568	0.3
Zn	1A1a	Solid	28.018	0.386	29.6	80.0	85.3	0.076	-98.622	0.1
Zn	1A1b	Liquid	3.869	5.735	3.9	80.0	80.1	14.772	48.223	1.0
Zn	1A1b	Solid	0.090	0.009	3.0	80.0	80.1	0.000	-90.357	0.0
Zn	1A2a	Biomass		0.008	10.0	80.0	80.6	0.000	NA	0.0
Zn	1A2b	Liquid	0.005	0.000	5.0	80.0	80.2	0.000	-92.647	0.0
Zn	1A2c	Biomass	0.014	0.008	15.1	80.0	81.4	0.000	-42.233	0.0
Zn	1A2c	Liquid	0.040	0.011	4.4	80.0	80.1	0.000	-71.102	0.0
Zn	1A2c	Other	0.215	0.001	10.0	80.0	80.6	0.000	-99.519	0.0
Zn	1A2d	Biomass	10.754	0.896	5.7	80.0	80.2	0.361	-91.670	0.1
Zn	1A2d	Liquid	0.110	0.130	28.0	80.0	84.8	0.009	19.114	0.0
Zn	1A2d	Other	0.016	0.303	9.6	80.0	80.6	0.042	1830.383	0.1
Zn	1A2d	Peat	0.999	0.007	10.4	80.0	80.7	0.000	-99.317	0.0
Zn	1A2d	Solid	3.342	0.001	5.0	80.0	80.2	0.000	-99.962	0.0
Zn	1A2e	Biomass	0.126	0.107	8.8	80.0	80.5	0.005	-15.406	0.0
Zn	1A2e	Liquid	0.040	0.001	4.9	80.0	80.2	0.000	-97.846	0.0
Zn	1A2e	Peat	0.328	0.147	5.0	80.0	80.2	0.010	-55.085	0.0
Zn	1A2e	Solid	2.627	0.044	14.4	80.0	81.3	0.001	-98.316	0.0
Zn	1A2f	Biomass	0.003	0.058	9.9	80.0	80.6	0.002	2191.200	0.0
Zn	1A2f	Liquid	0.327	0.638	4.0	80.0	80.1	0.183	94.765	0.1
Zn	1A2f	Other		0.720	10.0	80.0	80.6	0.236	NA	0.1
Zn	1A2f	Solid	5.497	0.831	4.7	80.0	80.1	0.311	-84.878	0.1
Zn	1A2gvii	Liquid	0.296	0.364	4.9	100.0	100.1	0.093	22.942	0.1
Zn	1A2gviii	Biomass	4.949	2.000	9.3	80.0	80.5	1.817	-59.591	0.3
Zn	1A2gviii	Liquid	0.055	0.002	3.5	80.0	80.1	0.000	-96.177	0.0
Zn	1A2gviii	Other	0.221	1.178	10.0	80.0	80.6	0.631	431.814	0.2
Zn	1A2gviii	Peat	0.005	0.006	10.0	80.0	80.6	0.000	17.743	0.0
Zn	1A3bi	Diesel oil	0.006	0.011	1.0	100.0	100.0	0.000	82.471	0.0
Zn	1A3bi	Gasoline	0.059	0.038	2.0	100.0	100.0	0.001	-35.634	0.0
Zn	1A3bii	Diesel oil	0.005	0.005	1.0	100.0	100.0	0.000	-0.137	0.0
Zn	1A3bii	Gasoline	0.002	0.000	2.0	100.0	100.0	0.000	-94.437	0.0
Zn	1A3biii	Diesel oil	0.018	0.024	1.0	100.0	100.0	0.000	36.373	0.0
Zn	1A3biv	Diesel oil		0.000	1.0	100.0	100.0	0.000	NA	0.0
Zn	1A3biv	Gasoline	0.000	0.001	2.0	100.0	100.0	0.000	147.742	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
Zn	1A3bvi		18.420	18.206	1.0	100.0	100.0	232.103	-1.158	3.8
Zn	1A3c	Liquid	0.060	0.018	2.0	100.0	100.0	0.000	-69.541	0.0
Zn	1A3dii	Liquid	0.117	0.076	14.2	100.0	101.0	0.004	-34.454	0.0
Zn	1A4ai	Biomass	1.355	2.281	20.0	80.0	82.5	2.478	68.424	0.4
Zn	1A4ai	Liquid	0.125	0.018	15.0	80.0	81.4	0.000	-85.509	0.0
Zn	1A4ai	Peat	0.040	0.034	15.0	80.0	81.4	0.001	-14.975	0.0
Zn	1A4aii	Liquid	0.134	0.092	12.8	100.0	100.8	0.006	-31.083	0.0
Zn	1A4bi	Biomass	28.903	33.028	20.0	80.0	82.5	519.351	14.272	5.6
Zn	1A4bi	Peat	0.215	0.013	15.0	80.0	81.4	0.000	-94.000	0.0
Zn	1A4bii	Liquid	0.044	0.055	11.3	100.0	100.6	0.002	24.930	0.0
Zn	1A4ci	Biomass	4.550	4.414	20.0	80.0	82.5	9.275	-2.983	0.8
Zn	1A4ci	Liquid	0.039	0.001	15.0	80.0	81.4	0.000	-98.547	0.0
Zn	1A4ci	Peat	0.132	0.376	10.0	80.0	80.6	0.064	184.750	0.1
Zn	1A4ci	Solid	0.072	0.006	20.0	80.0	82.5	0.000	-92.330	0.0
Zn	1A4cii	Liquid	0.293	0.231	14.6	100.0	101.1	0.038	-21.320	0.0
Zn	1A4ciii	Liquid	0.067	0.039	15.0	100.0	101.1	0.001	-41.984	0.0
Zn	1A5a	Biomass	0.238	19.192	10.0	80.0	80.6	167.625	7965.576	3.2
Zn	1A5a	Liquid	0.111	0.026	23.2	80.0	83.3	0.000	-76.387	0.0
Zn	1B1b		0.160	0.055	30.0		30.0	0.000	-65.644	0.0
Zn	2B10a		0.010	0.250	60.0		60.0	0.016	2400.000	0.0
Zn	2C1		303.559	1.682	30.0		30.0	0.178	-99.446	0.1
Zn	2C2		0.100	0.904	30.0		30.0	0.051	804.000	0.1
Zn	2C3		0.127	0.042	30.0		30.0	0.000	-66.835	0.0
Zn	2C6		90.174	8.012	30.0		30.0	4.045	-91.114	0.5
Zn	2C7a		2.563	0.006	30.0		30.0	0.000	-99.770	0.0
Zn	2C7c		160.391	1.034	30.0		30.0	0.067	-99.355	0.1
Zn	2G		0.127	0.360	35.0	669.0	669.9	4.077	183.813	0.5
Zn	5C1bv		0.001	0.006	10.0	900.0	900.1	0.002	413.562	0.0
Total			682.839	119.511			31.8		-82.498	7.9

Pollutant	NFR	Fuel	Base year emissions, gI-TEQ	Year 2023 emissions, gI-TEQ	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 Increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PCDD/F	1A1a	Biomass	0.151	1.595	64.2	1000.0	1002.1	34125.230	957.681	153.2
PCDD/F	1A1a	Gaseous	0.020	0.006	43.8	1000.0	1001.0	0.454	-70.851	0.6
PCDD/F	1A1a	Liquid	0.007	0.197	2.1	1000.0	1000.0	520.513	2637.550	18.9
PCDD/F	1A1a	Other	0.002	0.821	63.3	1000.0	1002.0	9039.737	42995.287	78.8
PCDD/F	1A1a	Peat	0.747	0.306	68.9	1000.0	1002.4	1253.741	-59.076	29.4
PCDD/F	1A1a	Solid	0.411	0.075	383.5	1000.0	1071.0	86.303	-81.743	7.7
PCDD/F	1A1b	Biomass		0.000	10.0	1000.0	1000.0	0.002	NA	0.0
PCDD/F	1A1b	Gaseous	0.004	0.003	1.0	1000.0	1000.0	0.122	-27.723	0.3
PCDD/F	1A1b	Liquid	0.019	0.027	3.9	1000.0	1000.0	9.793	42.196	2.6
PCDD/F	1A1b	Solid	0.000	0.000	3.0	1000.0	1000.0	0.000	-90.357	0.0
PCDD/F	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.001	NA	0.0
PCDD/F	1A2a	Gaseous	0.001	0.003	2.0	1000.0	1000.0	0.114	193.715	0.3
PCDD/F	1A2a	Liquid	0.001	0.000	4.6	1000.0	1000.0	0.000	-97.296	0.0
PCDD/F	1A2a	Solid	0.024	0.003	2.2	1000.0	1000.0	0.105	-88.331	0.3
PCDD/F	1A2b	Gaseous		0.000	4.9	1000.0	1000.0	0.000	NA	0.0
PCDD/F	1A2b	Liquid	0.000	0.000	2.7	1000.0	1000.0	0.002	-18.572	0.0
PCDD/F	1A2b	Solid	0.002	0.001	5.0	1000.0	1000.0	0.007	-58.782	0.1
PCDD/F	1A2c	Biomass	0.012	0.001	9.8	1000.0	1000.0	0.006	-94.495	0.1
PCDD/F	1A2c	Gaseous	0.001	0.002	5.0	1000.0	1000.0	0.038	96.555	0.2
PCDD/F	1A2c	Liquid	0.005	0.005	3.5	1000.0	1000.0	0.288	-0.244	0.4
PCDD/F	1A2c	Other	0.014	0.000	10.0	1000.0	1000.0	0.002	-96.994	0.0
PCDD/F	1A2d	Biomass	0.808	0.844	322.2	1000.0	1050.6	10513.046	4.487	85.0
PCDD/F	1A2d	Gaseous	0.016	0.012	335.3	1000.0	1054.7	2.307	-19.663	1.3
PCDD/F	1A2d	Liquid	0.005	0.005	303.4	1000.0	1045.0	0.438	2.029	0.5
PCDD/F	1A2d	Other	0.009	0.086	215.7	1000.0	1023.0	104.068	835.346	8.5
PCDD/F	1A2d	Peat	0.149	0.050	138.6	1000.0	1009.6	33.386	-66.859	4.8
PCDD/F	1A2d	Solid	0.045	0.000	14.5	1000.0	1000.1	0.002	-99.051	0.0
PCDD/F	1A2e	Biomass	0.007	0.014	8.5	1000.0	1000.0	2.608	106.627	1.3
PCDD/F	1A2e	Gaseous	0.000	0.000	2.9	1000.0	1000.0	0.001	-29.122	0.0
PCDD/F	1A2e	Liquid	0.002	0.000	3.1	1000.0	1000.0	0.001	-83.040	0.0
PCDD/F	1A2e	Peat	0.028	0.013	5.0	1000.0	1000.0	2.305	-52.477	1.3
PCDD/F	1A2e	Solid	0.007	0.001	4.7	1000.0	1000.0	0.015	-84.905	0.1
PCDD/F	1A2f	Biomass	0.000	0.002	7.3	1000.0	1000.0	0.078	3091.023	0.2
PCDD/F	1A2f	Gaseous	0.001	0.000	3.0	1000.0	1000.0	0.003	-56.746	0.0
PCDD/F	1A2f	Liquid	0.002	0.001	205.0	1000.0	1020.8	0.027	-13.202	0.1
PCDD/F	1A2f	Other		0.003	493.0	1000.0	1114.9	0.190	NA	0.4
PCDD/F	1A2f	Solid	0.024	0.002	21.0	1000.0	1000.2	0.062	-91.194	0.2

Pollutant	NFR	Fuel	Base year emissions, gI-TEQ	Year 2023 emissions, gI-TEQ	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 Increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PCDD/F	1A2gviii	Biomass	0.199	0.133	43.5	1000.0	1000.9	238.038	-33.101	12.8
PCDD/F	1A2gviii	Gaseous	0.000	0.001	2.7	1000.0	1000.0	0.009	120.421	0.1
PCDD/F	1A2gviii	Liquid	0.003	0.001	3.6	1000.0	1000.0	0.012	-63.742	0.1
PCDD/F	1A2gviii	Other	0.192	0.051	471.6	1000.0	1105.6	42.969	-73.330	5.4
PCDD/F	1A2gviii	Peat	0.004	0.006	52.2	1000.0	1001.4	0.520	63.181	0.6
PCDD/F	1A3bi	Diesel oil	0.008	0.199	1.0	1000.0	1000.0	526.752	2428.603	19.0
PCDD/F	1A3bi	Gasoline	0.962	0.178	2.0	1000.0	1000.0	421.545	-81.543	17.0
PCDD/F	1A3bii	Diesel oil	0.004	0.121	1.0	1000.0	1000.0	196.441	2763.721	11.6
PCDD/F	1A3bii	Gasoline	0.024	0.001	2.0	1000.0	1000.0	0.005	-97.386	0.1
PCDD/F	1A3biii	Diesel oil	0.217	0.039	1.0	1000.0	1000.0	20.760	-81.811	3.8
PCDD/F	1A3biv	Diesel oil		0.002	1.0	1000.0	1000.0	0.052	NA	0.2
PCDD/F	1A3biv	Gasoline	0.014	0.011	2.0	1000.0	1000.0	1.692	-20.189	1.1
PCDD/F	1A3dii	Liquid	0.026	0.010	14.2	1000.0	1000.1	1.209	-62.841	0.9
PCDD/F	1A3ei	Gaseous	0.000	0.000	20.0	1000.0	1000.2	0.000	-98.114	0.0
PCDD/F	1A4ai	Biomass	0.041	0.068	20.0	1000.0	1000.2	62.605	68.425	6.6
PCDD/F	1A4ai	Gaseous	0.000	0.000	10.0	1000.0	1000.0	0.001	-15.874	0.0
PCDD/F	1A4ai	Liquid	0.012	0.005	13.0	1000.0	1000.1	0.339	-58.409	0.5
PCDD/F	1A4ai	Peat	0.002	0.002	15.0	1000.0	1000.1	0.043	-14.975	0.2
PCDD/F	1A4bi	Biomass	0.867	0.991	20.0	1000.0	1000.2	13122.142	14.272	95.0
PCDD/F	1A4bi	Gaseous	0.000	0.000	10.0	1000.0	1000.0	0.000	-40.694	0.0
PCDD/F	1A4bi	Liquid	0.019	0.002	14.2	1000.0	1000.1	0.034	-91.749	0.2
PCDD/F	1A4bi	Other	0.000	0.000	10.0	1000.0	1000.0	0.000	-97.674	0.0
PCDD/F	1A4bi	Peat	0.011	0.001	15.0	1000.0	1000.1	0.006	-94.000	0.1
PCDD/F	1A4ci	Biomass	0.137	0.133	20.0	1000.0	1000.2	236.663	-2.515	12.8
PCDD/F	1A4ci	Gaseous	0.000	0.000	10.0	1000.0	1000.0	0.000	-88.917	0.0
PCDD/F	1A4ci	Liquid	0.004	0.002	14.1	1000.0	1000.1	0.042	-57.693	0.2
PCDD/F	1A4ci	Peat	0.007	0.020	10.0	1000.0	1000.0	5.309	184.750	1.9
PCDD/F	1A4ci	Solid	0.001	0.000	20.0	1000.0	1000.2	0.001	-53.225	0.0
PCDD/F	1A4ciii	Liquid	0.007	0.004	15.0	1000.0	1000.1	0.235	-41.984	0.4
PCDD/F	1A5a	Biomass	0.007	0.576	10.0	1000.0	1000.0	4429.432	7965.576	55.2
PCDD/F	1A5a	Gaseous	0.001	0.004	15.7	1000.0	1000.1	0.179	217.428	0.4
PCDD/F	1A5a	Liquid	0.009	0.005	16.0	1000.0	1000.1	0.368	-44.487	0.5
PCDD/F	1B1b		0.014	0.004	500.0		500.0	0.046	-73.483	0.2
PCDD/F	2A1		0.029	0.004	500.0		500.0	0.053	-86.437	0.2
PCDD/F	2A2		0.038	0.025	30.0	1000.0	1000.4	8.080	-35.445	2.4
PCDD/F	2A3		0.005	0.000	30.0	1000.0	1000.4	0.002	-93.562	0.0
PCDD/F	2B10a		3.000	0.190	500.0		500.0	120.578	-93.667	9.1

Pollutant	NFR	Fuel	Base year emissions, g I-TEQ	Year 2023 emissions, g I-TEQ	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PCDD/F	2C1		4.552	0.239	500.0		500.0	190.490	-94.754	11.4
PCDD/F	2C3		0.041	0.042	10.0	1000.0	1000.0	23.779	3.285	4.0
PCDD/F	2C6		0.038	0.064	10.0	1000.0	1000.0	54.872	67.746	6.1
PCDD/F	2C7a		0.001	0.209	11.7	1000.0	1000.1	581.328	23024.030	20.0
PCDD/F	2D3b		0.016	0.007	30.0	1000.0	1000.4	0.652	-55.645	0.7
PCDD/F	2G		0.001	0.000	35.0	100.0	105.9	0.000	-53.646	0.0
PCDD/F	2L		0.029	0.006	60.0	1000.0	1001.8	0.453	-80.286	0.6
PCDD/F	5C1bv		0.000	0.001	10.0	900.0	900.1	0.012	413.562	0.1
PCDD/F	5E		3.498	1.214	35.0	1000.0	1000.6	19699.907	-65.307	116.4
Total			14.754	8.651			309.3		-41.360	256.5

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PAH-4	1A1a	Biomass	0.019	0.257	91.5	1000.0	1004.2	179.072	1248.070	20.1
PAH-4	1A1a	Liquid	0.050	0.014	139.9	1000.0	1009.7	0.538	-71.997	1.1
PAH-4	1A1a	Other	0.000	0.202	328.9	1000.0	1052.7	121.062	174765.629	16.5
PAH-4	1A1a	Peat	0.043	0.020	109.5	1000.0	1006.0	1.053	-53.826	1.5
PAH-4	1A1a	Solid	0.001	0.000	407.3	1000.0	1079.8	0.000	-82.707	0.0
PAH-4	1A1b	Liquid	0.006	0.007	5.0	1000.0	1000.0	0.142	23.553	0.6
PAH-4	1A1b	Solid	0.000	0.000	3.0	1000.0	1000.0	0.000	-90.357	0.0
PAH-4	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PAH-4	1A2a	Liquid	0.005	0.000	4.9	1000.0	1000.0	0.000	-98.666	0.0
PAH-4	1A2a	Solid	0.000	0.000	3.0	1000.0	1000.0	0.000	-97.195	0.0
PAH-4	1A2b	Liquid	0.003	0.002	3.2	1000.0	1000.0	0.007	-40.645	0.1
PAH-4	1A2b	Solid	0.000	0.000	4.8	1000.0	1000.0	0.000	-89.391	0.0
PAH-4	1A2c	Biomass	0.002	0.001	10.0	1000.0	1000.0	0.001	-70.756	0.0
PAH-4	1A2c	Liquid	0.009	0.003	7.4	1000.0	1000.0	0.023	-67.665	0.2
PAH-4	1A2c	Other	0.001	0.000	10.0	1000.0	1000.0	0.000	-91.948	0.0

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PAH-4	1A2d	Biomass	0.105	0.125	238.1	1000.0	1028.0	44.137	18.464	10.0
PAH-4	1A2d	Liquid	0.037	0.017	115.0	1000.0	1006.6	0.782	-54.159	1.3
PAH-4	1A2d	Other	0.001	0.009	10.0	1000.0	1000.0	0.204	1461.192	0.7
PAH-4	1A2d	Peat	0.009	0.002	8.3	1000.0	1000.0	0.014	-73.070	0.2
PAH-4	1A2d	Solid	0.000	0.000	5.0	1000.0	1000.0	0.000	-99.058	0.0
PAH-4	1A2e	Biomass	0.001	0.002	8.8	1000.0	1000.0	0.009	110.322	0.1
PAH-4	1A2e	Liquid	0.010	0.001	4.0	1000.0	1000.0	0.002	-91.282	0.1
PAH-4	1A2e	Peat	0.002	0.001	5.0	1000.0	1000.0	0.002	-52.477	0.1
PAH-4	1A2e	Solid	0.000	0.000	4.7	1000.0	1000.0	0.000	-84.905	0.0
PAH-4	1A2f	Biomass	0.000	0.000	9.9	1000.0	1000.0	0.000	3061.505	0.0
PAH-4	1A2f	Liquid	0.008	0.003	3.3	1000.0	1000.0	0.021	-65.320	0.2
PAH-4	1A2f	Other		0.003	10.0	1000.0	1000.0	0.028	NA	0.2
PAH-4	1A2f	Solid	0.000	0.000	4.7	1000.0	1000.0	0.000	-88.332	0.0
PAH-4	1A2gvii	Liquid	0.024	0.029	4.9	1000.0	1000.0	2.271	22.942	2.3
PAH-4	1A2gviii	Biomass	0.027	0.026	185.3	1000.0	1017.0	1.920	-0.861	2.1
PAH-4	1A2gviii	Liquid	0.015	0.005	6.1	1000.0	1000.0	0.057	-69.421	0.4
PAH-4	1A2gviii	Other	0.017	0.210	11.2	1000.0	1000.1	118.014	1139.031	16.3
PAH-4	1A2gviii	Peat	0.000	0.001	213.5	1000.0	1022.5	0.001	185.596	0.0
PAH-4	1A3bi	Diesel oil	0.041	0.076	1.0	1000.0	1000.0	15.303	82.471	5.9
PAH-4	1A3bi	Gasoline	0.046	0.029	2.0	1000.0	1000.0	2.302	-35.634	2.3
PAH-4	1A3bii	Diesel oil	0.024	0.024	1.0	1000.0	1000.0	1.562	-0.137	1.9
PAH-4	1A3bii	Gasoline	0.001	0.000	2.0	1000.0	1000.0	0.000	-94.437	0.0
PAH-4	1A3biii	Diesel oil	0.053	0.073	1.0	1000.0	1000.0	14.184	36.373	5.7
PAH-4	1A3biv	Diesel oil		0.000	1.0	1000.0	1000.0	0.000	NA	0.0
PAH-4	1A3biv	Gasoline	0.001	0.001	2.0	1000.0	1000.0	0.005	147.742	0.1
PAH-4	1A3c	Liquid	0.005	0.001	2.0	1000.0	1000.0	0.006	-69.541	0.1
PAH-4	1A3dii	Liquid	0.004	0.002	12.9	1000.0	1000.1	0.009	-52.668	0.1
PAH-4	1A4ai	Biomass	0.001	0.002	20.0	200.0	201.0	0.000	59.582	0.0
PAH-4	1A4ai	Liquid	0.074	0.029	13.0	1000.0	1000.1	2.265	-60.573	2.3
PAH-4	1A4ai	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	-14.975	0.0
PAH-4	1A4aai	Liquid	0.011	0.007	12.8	1000.0	1000.1	0.145	-31.083	0.6
PAH-4	1A4bi	Biomass	17.153	17.972	20.0	200.0	201.0	34978.182	4.776	281.1
PAH-4	1A4bi	Liquid	0.109	0.008	15.0	1000.0	1000.1	0.188	-92.288	0.7
PAH-4	1A4bi	Other	0.000	0.000	10.0	1000.0	1000.0	0.000	-97.674	0.0
PAH-4	1A4bi	Peat	0.001	0.000	15.0	1000.0	1000.1	0.000	-94.000	0.0
PAH-4	1A4bii	Liquid	0.004	0.004	11.3	1000.0	1000.1	0.052	24.930	0.3
PAH-4	1A4ci	Biomass	0.003	0.003	20.0	200.0	201.0	0.001	2.840	0.1

Pollutant	NFR	Fuel	Base year emissions, t	Year 2023 emissions, t	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PAH-4	1A4ci	Liquid	0.025	0.009	14.8	1000.0	1000.1	0.236	-62.319	0.7
PAH-4	1A4ci	Peat	0.000	0.001	10.0	1000.0	1000.0	0.003	184.750	0.1
PAH-4	1A4ci	Solid	0.000	0.000	20.0	1000.0	1000.2	0.000	-53.225	0.0
PAH-4	1A4cii	Liquid	0.023	0.018	14.6	1000.0	1000.1	0.914	-21.320	1.4
PAH-4	1A4ciii	Liquid	0.001	0.001	15.0	1000.0	1000.1	0.001	-41.984	0.1
PAH-4	1A5a	Biomass	0.001	0.074	10.0	1000.0	1000.0	14.691	7965.576	5.8
PAH-4	1A5a	Liquid	0.045	0.014	23.2	1000.0	1000.3	0.547	-68.334	1.1
PAH-4	1B1b		0.000	0.000	500.0		500.0	0.000	170.771	0.0
PAH-4	2A1		0.000	0.000	500.0		500.0	0.000	0.530	0.0
PAH-4	2C1		0.132	0.011	10.0	1000.0	1000.0	0.353	-91.300	0.9
PAH-4	2C2			0.000	500.0		500.0	0.000	NA	0.0
PAH-4	2D3i		0.020	0.010	40.0	376.0	378.1	0.041	-47.666	0.3
PAH-4	2G		0.002	0.001	35.0	100.0	105.9	0.000	-53.646	0.0
PAH-4	5C1bv		0.000	0.001	10.0	900.0	900.1	0.004	413.562	0.1
Total			18.174	19.315			188.4		6.275	283.2

Pollutant	NFR	Fuel	Base year emissions, kg	Year 2023 emissions, kg	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
HCB	1A1a	Biomass	0.037	0.472	4.8	1000.0	1000.0	844.723	1192.700	18.7
HCB	1A1a	Other		0.002	10.0	1000.0	1000.0	0.010	NA	0.1
HCB	1A1a	Solid	0.001	0.000	1.0	1000.0	1000.0	0.000	-79.806	0.0
HCB	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A2a	Solid	0.003	0.000	3.0	1000.0	1000.0	0.000	-89.578	0.0
HCB	1A2b	Solid	0.002	0.000	4.8	1000.0	1000.0	0.000	-93.957	0.0
HCB	1A2c	Biomass	0.003	0.000	9.8	1000.0	1000.0	0.000	-95.190	0.0
HCB	1A2d	Biomass	0.191	0.113	4.5	1000.0	1000.0	48.497	-40.924	4.5
HCB	1A2d	Other		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A2d	Solid	0.007	0.000	5.0	1000.0	1000.0	0.000	-99.058	0.0

Pollutant	NFR	Fuel	Base year emissions, kg	Year 2023 emissions, kg	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
HCB	1A2e	Biomass	0.002	0.003	8.8	1000.0	1000.0	0.039	103.619	0.1
HCB	1A2e	Solid	0.001	0.000	4.7	1000.0	1000.0	0.000	-84.905	0.0
HCB	1A2f	Biomass	0.000	0.001	9.9	1000.0	1000.0	0.001	3061.505	0.0
HCB	1A2f	Solid	0.004	0.000	4.7	1000.0	1000.0	0.001	-88.332	0.0
HCB	1A2gviii	Biomass	0.049	0.046	9.3	1000.0	1000.0	7.863	-7.103	1.8
HCB	1A2gviii		0.143	0.085	30.0	900.0	900.5	22.090	-40.781	3.0
HCB	1A2gviii	Other		0.001	10.0	1000.0	1000.0	0.002	NA	0.0
HCB	1A3bi	Diesel oil	0.020	0.036	1.0	1000.0	1000.0	4.916	82.471	1.4
HCB	1A3bi	Gaseous		0.001	3.0	1000.0	1000.0	0.002	NA	0.0
HCB	1A3bi	Gasoline	0.108	0.069	2.0	1000.0	1000.0	18.166	-35.634	2.7
HCB	1A3bii	Diesel oil	0.015	0.015	1.0	1000.0	1000.0	0.885	-0.137	0.6
HCB	1A3bii	Gaseous		0.000	3.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A3bii	Gasoline	0.004	0.000	2.0	1000.0	1000.0	0.000	-94.437	0.0
HCB	1A3biii	Diesel oil	0.059	0.081	1.0	1000.0	1000.0	24.907	36.373	3.2
HCB	1A3biii	Gaseous		0.001	3.0	1000.0	1000.0	0.002	NA	0.0
HCB	1A3biv	Diesel oil		0.000	1.0	1000.0	1000.0	0.000	NA	0.0
HCB	1A3biv	Gasoline	0.001	0.002	2.0	1000.0	1000.0	0.016	147.742	0.1
HCB	1A3dii	Liquid	0.010	0.005	14.2	1000.0	1000.1	0.107	-47.205	0.2
HCB	1A4ai	Biomass	0.010	0.016	20.0	1000.0	1000.2	1.007	70.628	0.6
HCB	1A4bi	Biomass	0.206	0.236	20.0	1000.0	1000.2	211.111	14.272	9.4
HCB	1A4ci	Biomass	0.033	0.031	20.0	1000.0	1000.2	3.656	-4.477	1.2
HCB	1A4ci	Solid		0.001	20.0	1000.0	1000.2	0.006	NA	0.1
HCB	1A4ciii	Liquid	0.004	0.003	15.0	1000.0	1000.1	0.025	-41.984	0.1
HCB	1A5a	Biomass		0.027	10.0	1000.0	1000.0	2.850	NA	1.1
HCB	1A5a	Liquid	0.001	0.001	30.0	1000.0	1000.4	0.002	16.621	0.0
HCB	2B10a		29.000	8.800	50.0		50.0	734.058	-69.655	17.4
HCB	2C1		0.096	0.013	10.0	900.0	900.1	0.492	-86.785	0.5
HCB	2C3		0.033	0.034	10.0	1000.0	1000.0	4.315	3.285	1.3
HCB	2C7a		5.514	6.108	10.0	1000.0	1000.0	141491.863	10.772	242.2
HCB	2D3i		0.004	0.002	40.0	1000.0	1000.8	0.010	-63.853	0.1
HCB	3Df		0.057	0.029	10.0	1000.0	1000.0	3.099	-50.072	1.1
HCB	5C1bv		0.001	0.006	10.0	900.0	900.1	0.106	413.562	0.2
Total			35.677	16.240			378.7		-54.480	243.8

Pollutant	NFR	Fuel	Base year emissions, kg	Year 2023 emissions, kg	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PCB	1A1a	Biomass	0.026	0.330	4.8	1000.0	1000.0	81.838	1192.700	16.4
PCB	1A1a	Other		0.001	10.0	1000.0	1000.0	0.001	NA	0.1
PCB	1A1a	Solid	0.000	0.000	1.0	1000.0	1000.0	0.000	-79.806	0.0
PCB	1A2a	Biomass		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A2a	Solid	0.784	0.082	3.0	1000.0	1000.0	5.007	-89.578	4.0
PCB	1A2b	Solid	0.551	0.033	4.8	1000.0	1000.0	0.830	-93.957	1.6
PCB	1A2c	Biomass	0.000	0.000	9.8	1000.0	1000.0	0.000	-95.190	0.0
PCB	1A2d	Biomass	0.002	0.001	4.5	1000.0	1000.0	0.001	-40.924	0.1
PCB	1A2d	Other		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A2d	Solid	1.907	0.018	5.0	1000.0	1000.0	0.242	-99.058	0.9
PCB	1A2e	Biomass	0.000	0.000	8.8	1000.0	1000.0	0.000	103.619	0.0
PCB	1A2e	Solid	0.298	0.045	4.7	1000.0	1000.0	1.515	-84.905	2.2
PCB	1A2f	Biomass	0.000	0.000	9.9	1000.0	1000.0	0.000	3061.505	0.0
PCB	1A2f	Solid	1.037	0.121	4.7	1000.0	1000.0	10.967	-88.332	6.0
PCB	1A2gviii	Biomass	0.001	0.001	9.3	1000.0	1000.0	0.000	-7.103	0.0
PCB	1A2gviii		0.135	0.017	30.0	900.0	900.5	0.166	-87.764	0.7
PCB	1A2gviii	Other		0.000	10.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A3bi	Diesel oil	0.000	0.000	1.0	1000.0	1000.0	0.000	406.144	0.0
PCB	1A3bi	Gasoline	0.000	0.000	2.0	1000.0	1000.0	0.000	-81.812	0.0
PCB	1A3bii	Diesel oil	0.000	0.000	1.0	1000.0	1000.0	0.000	473.391	0.0
PCB	1A3bii	Gasoline	0.000	0.000	2.0	1000.0	1000.0	0.000	-98.920	0.0
PCB	1A3biii	Diesel oil	0.000	0.000	1.0	1000.0	1000.0	0.000	-78.979	0.0
PCB	1A3biv	Diesel oil		0.000	1.0	1000.0	1000.0	0.000	NA	0.0
PCB	1A3biv	Gasoline	0.000	0.000	2.0	1000.0	1000.0	0.000	-82.530	0.0
PCB	1A3dii	Liquid	0.024	0.004	14.2	1000.0	1000.1	0.014	-81.841	0.2
PCB	1A4ai	Biomass	0.000	0.000	20.0	1000.0	1000.2	0.000	70.628	0.0
PCB	1A4ai	Liquid	0.002	0.001	13.0	1000.0	1000.1	0.001	-58.145	0.0
PCB	1A4ai	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	8.183	0.0
PCB	1A4bi	Biomass	0.002	0.003	20.0	1000.0	1000.2	0.006	14.272	0.1
PCB	1A4bi	Liquid	0.003	0.000	15.0	1000.0	1000.1	0.000	-92.302	0.0
PCB	1A4bi	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	-94.000	0.0
PCB	1A4ci	Biomass	0.000	0.000	20.0	1000.0	1000.2	0.000	-4.477	0.0
PCB	1A4ci	Liquid	0.001	0.000	14.8	1000.0	1000.1	0.000	-88.661	0.0
PCB	1A4ci	Peat	0.000	0.000	10.0	1000.0	1000.0	0.000	178.093	0.0
PCB	1A4ci	Solid		0.000	20.0	1000.0	1000.2	0.000	NA	0.0
PCB	1A4ciii	Liquid	0.002	0.001	15.0	1000.0	1000.1	0.001	-41.984	0.1
PCB	1B1b		1.753	2.920	10.0	1000.0	1000.0	6394.507	66.577	144.6

Pollutant	NFR	Fuel	Base year emissions, kg	Year 2023 emissions, kg	Activity data uncertainty, %	Emission factor uncertainty, %	Combined uncertainty, %	Contribution to variance in year 2023, fraction	Inventory trend in national emissions for year 2023 increase with respect to base year, % of base year	Uncertainty introduced into the trend in total national emissions with respect to base year, %
PCB	2A1		3.298	2.131	10.0	1000.0	1000.0	3403.547	-35.405	105.5
PCB	2A2		0.000	0.000	30.0	1000.0	1000.4	0.000	-35.445	0.0
PCB	2C1		13.464	8.495	148.4	100.0	178.9	1731.980	-36.907	75.3
PCB	2C3		0.083	0.088	10.0	1000.0	1000.0	5.819	6.007	4.4
PCB	2C7a		0.001	0.000	10.0	67.0	67.7	0.000	-42.479	0.0
PCB	2C7c		0.002	0.005	30.0	1000.0	1000.4	0.020	192.464	0.3
PCB	5C1bv		0.003	0.016	10.0	900.0	900.1	0.156	413.562	0.7
PCB	1A4bi	Biomass	2.477	3.187	20.0	1000.0	1000.2	7615.517	28.627	157.8
PCB	1A4bi	Liquid	0.003	0.001	15.0	1000.0	1000.1	0.000	-78.220	0.0
PCB	1A4bi	Peat	0.000	0.000	15.0	1000.0	1000.1	0.000	-74.568	0.0
PCB	1A4ci	Biomass	0.390	0.348	20.0	1000.0	1000.2	90.887	-10.738	17.2
PCB	1A4ci	Liquid	0.001	0.000	14.6	1000.0	1000.1	0.000	-87.144	0.0
PCB	1A4ci	Peat	0.000	0.000	10.0	1000.0	1000.0	0.000	197.595	0.0
PCB	1A4ci	Solid		0.000	20.0	1000.0	1000.2	0.000	NA	0.0
PCB	1A4ciii	Liquid	0.002	0.001	15.0	1000.0	1000.1	0.001	-42.558	0.1
PCB	1B1b		1.753	3.006	10.0	1000.0	1000.0	6774.195	71.451	148.9
PCB	2A1		3.298	3.040	10.0	1000.0	1000.0	6930.355	-7.825	150.6
PCB	2A2		0.000	0.000	30.0	1000.0	1000.4	0.000	-19.586	0.0
PCB	2C1		13.464	12.492	236.2	100.0	256.5	7697.102	-7.223	158.7
PCB	2C3		0.083	0.103	10.0	1000.0	1000.0	8.001	24.300	5.1
PCB	2C7a		0.001	0.000	10.0	67.0	67.7	0.000	-43.825	0.0
PCB	2C7c		0.002	0.015	30.0	1000.0	1000.4	0.168	750.386	0.7
PCB	5C1bv		0.003	0.014	10.0	900.0	900.1	0.124	358.166	0.6
Total			28.558	36.523			201.9		27.892	365.1

Annex 7

(Updated March 2025, TF)

According to the EMEP/EEA emission inventory guidebook 2023, "a key category is one that is prioritised within the national inventory system because it is significantly important for one or a number of air pollutants in a country's national inventory of air pollutants in terms of the absolute level, the trend, or the uncertainty in emissions".

The results of the key category analysis are used in prioritizing the inventory improvements. For the Finnish 2025 submission inventory, the Approach 1 methodology presented in the EMEP/EEA emission inventory guidebook 2023, including the level and the trend assessment, has been used to identify key categories for each pollutant. Key source categories are sources that together contribute with either 80 % of the level or 80 % of the overall trend of reported emissions.

The combined results of the level and trend analysis for the 2025 submission are presented below.

NO_x

NFR Code	Fuel	Pollutant	Identification criteria
1A2d	Biomass	NO _x	L1, T1
1A1a	Biomass	NO _x	L1, T1
1A3bi	Diesel oil	NO _x	L1, T1
3Da1		NO _x	L1, T1
1A3biii	Diesel oil	NO _x	L1, T1
1A3bii	Diesel oil	NO _x	L1, T1
1A3dii	Liquid	NO _x	L1, T1
1A4bi	Biomass	NO _x	L1, T1
1A5a	Biomass	NO _x	L1, T1
1A4cii	Liquid	NO _x	L1, T1
1A1a	Solid	NO _x	L1, T1
1A1a	Other	NO _x	L1, T1
1A3bi	Gasoline	NO _x	L1, T1
1A2gvii	Liquid	NO _x	L1
3Da2a		NO _x	L1
1A1a	Peat	NO _x	L1
1A2a	Solid	NO _x	L1
1A4ciii	Liquid	NO _x	L1
1A5a	Liquid	NO _x	L1
1A1b	Liquid	NO _x	L1
1A1a	Gaseous	NO _x	T1

NM VOC

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	NM VOC	L1, T1
2D3a		NM VOC	L1, T1
3B1a		NM VOC	L1, T1
2D3d		NM VOC	L1, T1
3B1b		NM VOC	L1, T1

NFR Code	Fuel	Pollutant	Identification criteria
1A3dii	Liquid	NMVOC	L1
1B2av		NMVOC	L1
3Da2a		NMVOC	L1
2B10a		NMVOC	L1
1A4bii	Liquid	NMVOC	L1
2H2		NMVOC	L1
1B2aiv		NMVOC	L1
1A1a	Biomass	NMVOC	L1
2D3g		NMVOC	L1
2D3i		NMVOC	L1
1A3bi	Gasoline	NMVOC	T1
1A3bv		NMVOC	T1
2D3h		NMVOC	T1
1A3biii	Diesel oil	NMVOC	T1
2D3c		NMVOC	T1
1A4aii	Liquid	NMVOC	T1

SO_x

NFR Code	Fuel	Pollutant	Identification criteria
1A1a	Solid	SO _x	L1, T1
1A1b	Gaseous	SO _x	L1, T1
1A1a	Peat	SO _x	L1, T1
1A2b	Solid	SO _x	L1, T1
1A2d	Biomass	SO _x	L1, T1
2C1		SO _x	L1, T1
1A2b	Liquid	SO _x	L1, T1
2B10a		SO _x	L1, T1
1B1b		SO _x	L1, T1
1A1a	Biomass	SO _x	L1, T1
2H1		SO _x	L1, T1
1A5a	Biomass	SO _x	L1, T1
1A4ai	Liquid	SO _x	L1
1A2a	Solid	SO _x	L1
1A2c	Liquid	SO _x	L1
1A1b	Liquid	SO _x	T1
1A2d	Liquid	SO _x	T1
1A1a	Liquid	SO _x	T1
1A2d	Solid	SO _x	T1
1A2d	Peat	SO _x	T1
1A2gviii	Liquid	SO _x	T1

NH₃

NFR Code	Fuel	Pollutant	Identification criteria
3Da2a		NH ₃	L1, T1

NFR Code	Fuel	Pollutant	Identification criteria
3B1a		NH3	L1, T1
3B1b		NH3	L1, T1
3Da1		NH3	L1, T1
3B3		NH3	L1, T1
1A4bi	Biomass	NH3	L1, T1
3Da3		NH3	L1, T1
3B4gii		NH3	T1
3B4h		NH3	T1
1A3bi	Gasoline	NH3	T1
6A		NH3	T1
3Da2c		NH3	T1

PM2.5

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	PM2.5	L1, T1
1A2d	Biomass	PM2.5	L1, T1
1A3bvi		PM2.5	L1, T1
1A3bvii		PM2.5	L1, T1
2H2		PM2.5	L1, T1
1A5a	Biomass	PM2.5	L1, T1
1A3dii	Liquid	PM2.5	L1
1B1c		PM2.5	L1
3Dc		PM2.5	L1
1A2gvii	Liquid	PM2.5	L1
1A3biii	Diesel oil	PM2.5	T1
2C1		PM2.5	T1
1A3bi	Diesel oil	PM2.5	T1
1A4cii	Liquid	PM2.5	T1
1A1a	Solid	PM2.5	T1
2H1		PM2.5	T1

PM10

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	PM10	L1, T1
1A3bvii		PM10	L1, T1
3Dc		PM10	L1, T1
1A5a	Biomass	PM10	L1, T1
1A3bvi		PM10	L1, T1
1A2d	Biomass	PM10	L1, T1
2H2		PM10	L1
1B1c		PM10	L1
1A1a	Solid	PM10	T1
1A3biii	Diesel oil	PM10	T1
2C1		PM10	T1

NFR Code	Fuel	Pollutant	Identification criteria
1A3bi	Diesel oil	PM10	T1
2H1		PM10	T1
1A4cii	Liquid	PM10	T1
1A1a	Liquid	PM10	T1
1A2f	Solid	PM10	T1

TSP

NFR Code	Fuel	Pollutant	Identification criteria
1A3bvii		TSP	L1, T1
1A4bi	Biomass	TSP	L1, T1
1A5a	Biomass	TSP	L1, T1
3Dc		TSP	L1, T1
1A3bvi		TSP	L1, T1
1A2d	Biomass	TSP	L1, T1
1A1a	Biomass	TSP	L1
1A1a	Peat	TSP	L1
1A1a	Solid	TSP	T1
2C1		TSP	T1
1A3biii	Diesel oil	TSP	T1
1A3bi	Diesel oil	TSP	T1
1A2f	Solid	TSP	T1
2H1		TSP	T1
1A2d	Liquid	TSP	T1
1A4cii	Liquid	TSP	T1
1A1a	Liquid	TSP	T1

BC

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	BC	L1
1A3bvi		BC	L1
1A2gvii	Liquid	BC	L1
1A3bvii		BC	L1
2B10a		BC	T1
2A3		BC	T1

CO

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	CO	L1, T1
1A4bii	Liquid	CO	L1, T1
1A3bi	Gasoline	CO	L1, T1
1A5a	Biomass	CO	L1, T1
1A3dii	Liquid	CO	L1

NFR Code	Fuel	Pollutant	Identification criteria
1A4aii	Liquid	CO	L1
1A2d	Biomass	CO	L1
1A1a	Biomass	CO	T1

Pb

NFR Code	Fuel	Pollutant	Identification criteria
1A1b	Liquid	Pb	L1, T1
1A2d	Biomass	Pb	L1, T1
1A5a	Biomass	Pb	L1, T1
2G		Pb	L1, T1
1A1a	Peat	Pb	L1
1A1a	Biomass	Pb	L1
1A4bi	Biomass	Pb	L1
1A3bvi		Pb	L1
1A3bi	Gasoline	Pb	T1
2C7c		Pb	T1
2C1		Pb	T1

Cd

NFR Code	Fuel	Pollutant	Identification criteria
1A2d	Biomass	Cd	L1, T1
1A4bi	Biomass	Cd	L1, T1
1A5a	Biomass	Cd	L1, T1
1A1a	Biomass	Cd	L1, T1
2C7c		Cd	L1, T1
1A1b	Liquid	Cd	L1
2C6		Cd	T1

Hg

NFR Code	Fuel	Pollutant	Identification criteria
2C1		Hg	L1, T1
1A2d	Biomass	Hg	L1, T1
1A1a	Biomass	Hg	L1, T1
1A2gviii	Other	Hg	L1, T1
2B10a		Hg	L1, T1
5C1bv		Hg	L1, T1
1A4bi	Biomass	Hg	L1, T1
1A2f	Liquid	Hg	L1, T1
1A1a	Solid	Hg	L1, T1
1A1a	Peat	Hg	L1
1A1b	Liquid	Hg	L1

As

NFR Code	Fuel	Pollutant	Identification criteria
1A1b	Liquid	As	L1, T1
1A1a	Peat	As	L1, T1
1A2d	Biomass	As	L1, T1
1A4ci	Peat	As	L1, T1
2C7c		As	L1, T1
2C7a		As	L1
1A2f	Solid	As	L1
2C1		As	L1

Cr

NFR Code	Fuel	Pollutant	Identification criteria
1A1b	Liquid	Cr	L1, T1
2C1		Cr	L1, T1
1A4bi	Biomass	Cr	L1, T1
1A3bvi		Cr	L1, T1
1A5a	Biomass	Cr	L1, T1
2C2		Cr	L1
1A1a	Peat	Cr	L1
1A1a	Solid	Cr	T1
1A2f	Solid	Cr	T1
1A2e	Solid	Cr	T1

Cu

NFR Code	Fuel	Pollutant	Identification criteria
1A3bvi		Cu	L1, T1
1A5a	Biomass	Cu	L1, T1
2C7c		Cu	T1

Ni

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	Ni	L1, T1
2C7b		Ni	L1, T1
1A5a	Biomass	Ni	L1, T1
2C1		Ni	L1, T1
1A1a	Peat	Ni	L1, T1
1A1a	Biomass	Ni	L1, T1
2C7c		Ni	L1, T1
1A2c	Liquid	Ni	L1, T1
1A4ci	Biomass	Ni	L1, T1

NFR Code	Fuel	Pollutant	Identification criteria
1A3bvi		Ni	L1, T1
1A4ai	Liquid	Ni	L1
1A5a	Liquid	Ni	L1
1A2f	Solid	Ni	L1
1A1a	Solid	Ni	T1
1A1a	Liquid	Ni	T1
1A1b	Liquid	Ni	T1
1A4ci	Peat	Ni	T1

Zn

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	Zn	L1, T1
1A5a	Biomass	Zn	L1, T1
1A3bvi		Zn	L1, T1
1A1a	Biomass	Zn	L1, T1
2C6		Zn	L1
1A1b	Liquid	Zn	L1
1A4ci	Biomass	Zn	L1
2C1		Zn	T1
2C7c		Zn	T1

PCDD/F

NFR Code	Fuel	Pollutant	Identification criteria
1A1a	Biomass	PCDD/F	L1, T1
5E		PCDD/F	L1, T1
1A4bi	Biomass	PCDD/F	L1, T1
1A2d	Biomass	PCDD/F	L1, T1
1A1a	Other	PCDD/F	L1, T1
1A5a	Biomass	PCDD/F	L1, T1
2C1		PCDD/F	L1, T1
1A1a	Peat	PCDD/F	L1
2C7a		PCDD/F	L1
1A3bi	Diesel oil	PCDD/F	L1
2B10a		PCDD/F	T1

PAH-4

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Biomass	PAH-4	L1, T1
1A1a	Biomass	PAH-4	T1
1A1a	Other	PAH-4	T1
1A2gviii	Other	PAH-4	T1
2C1		PAH-4	T1

NFR Code	Fuel	Pollutant	Identification criteria
1A4bi	Liquid	PAH-4	T1
1A5a	Biomass	PAH-4	T1
1A4ai	Liquid	PAH-4	T1
1A1a	Liquid	PAH-4	T1

HCB

NFR Code	Fuel	Pollutant	Identification criteria
2B10a		HCB	L1, T1
2C7a		HCB	L1, T1

PCB

NFR Code	Fuel	Pollutant	Identification criteria
2C1		PCB	L1, T1
1B1b		PCB	L1, T1
2A1		PCB	L1
1A2d	Solid	PCB	T1
1A2f	Solid	PCB	T1
1A2a	Solid	PCB	T1

Level and Trend Key Category Analysis to the 2025 Submission

Level analysis

The key category assessment by level for the 2025 submission is presented below.

NO_x

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A2d	Biomass	11.724	11.724	Yes	1A2gviii	Gaseous	0.166	97.970	
1A1a	Biomass	8.607	20.330	Yes	1A2e	Peat	0.161	98.132	
1A3bi	Diesel oil	6.720	27.051	Yes	1A3aii(i)	Liquid	0.134	98.266	
3Da1		6.246	33.296	Yes	1A4ci	Peat	0.127	98.393	
1A3biii	Diesel oil	5.534	38.830	Yes	1A3biv	Gasoline	0.125	98.517	
1A3bii	Diesel oil	5.396	44.226	Yes	2B10a		0.120	98.637	
1A3dii	Liquid	4.898	49.124	Yes	3Da2b		0.120	98.757	
1A2gvii	Liquid	4.613	53.737	Yes	1A2c	Gaseous	0.104	98.861	
1A4bi	Biomass	4,180	57.917	Yes	1A2e	Biomass	0.104	98.964	
1A5a	Biomass	3.036	60.953	Yes	3B4gii		0.103	99.068	
3Da2a		2.669	63.623	Yes	1A2f	Gaseous	0.095	99.163	
1A1a	Peat	2.525	66.147	Yes	1A2b	Liquid	0.092	99.255	
1A2a	Solid	2.140	68.288	Yes	1A2a	Liquid	0.068	99.323	
1A4cii	Liquid	1.931	70.218	Yes	1A2gviii	Peat	0.062	99.385	
1A4ciii	Liquid	1.830	72.048	Yes	1A2e	Liquid	0.049	99.434	
1A5a	Liquid	1.812	73.860	Yes	3B4gi		0.048	99.482	
1A1a	Solid	1.694	75.555	Yes	1A3biii	Gaseous	0.046	99.527	
1A1a	Other	1.674	77.229	Yes	1A3bii	Gasoline	0.044	99.571	
1A3bi	Gasoline	1.549	78.778	Yes	3B1a		0.040	99.611	
1A1b	Liquid	1.411	80.189	Yes	1A2e	Solid	0.036	99.647	
1A3c	Liquid	1,370	81.559		1A1b	Biomass	0.036	99.682	
1A2gviii	Biomass	1.227	82.786		1A2e	Gaseous	0.034	99.717	
1A2c	Liquid	1.051	83.837		1A4ai	Gaseous	0.033	99.749	
1A4aii	Liquid	1.005	84.843		1A2c	Biomass	0.029	99.778	
1A4bii	Liquid	0.997	85.839		1A3biv	Diesel oil	0.024	99.802	
1A2a	Gaseous	0.964	86.803		3B4h		0.023	99.825	
1A2f	Liquid	0.935	87.738		3B4e		0.020	99.845	
1A4ai	Liquid	0.935	88.673		1A4bi	Gaseous	0.020	99.865	
1A1a	Liquid	0.876	89.549		1A2b	Solid	0.020	99.885	
1A2d	Liquid	0,820	90.369		1A4ai	Peat	0.014	99.899	
1A3ai(i)	Liquid	0,730	91.098		1A2f	Biomass	0.013	99.911	
1A2gviii	Other	0.687	91.785		1A4ci	Solid	0.012	99.924	
1A4ci	Biomass	0.566	92.352		1A2d	Solid	0.012	99.935	
1A2d	Gaseous	0.533	92.884		3B4giii		0.010	99.945	
1A1a	Gaseous	0.496	93.381		2G		0.009	99.954	
3Da3		0.456	93.837		3B2		0.009	99.962	
1A5a	Gaseous	0.406	94.242		3B3		0.007	99.969	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A2f	Other	0.394	94.637		1A2c	Other	0.006	99.975	
1A2d	Other	0.371	95.007		1A4bi	Peat	0.004	99.980	
1A2gviii	Liquid	0.347	95.355		1A3bi	Gaseous	0.004	99.984	
1A4ci	Liquid	0.307	95.662		3B4giv		0.004	99.988	
1A1b	Gaseous	0.304	95.966		1A2a	Biomass	0.004	99.991	
1A2f	Solid	0.291	96.257		1A4ci	Gaseous	0.004	99.995	
1A2d	Peat	0.290	96.547		1A2b	Gaseous	0.002	99.997	
1A4ai	Biomass	0.289	96.836		1A1b	Solid	0.002	99.999	
3Da2c		0.278	97.114		1A3bii	Gaseous	0.001	99.999	
1A4bi	Liquid	0.276	97.390		3B4d		0.001	100	
3B1b		0.214	97.603		1A4bi	Other	0.000	100	
2B2		0.201	97.804		1A3ei	Gaseous	0.000	100	

NMVOC

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	25.290	25.290	Yes	2L		0.031	99.474	
2D3a		9.148	34.438	Yes	1A3biv	Diesel oil	0.029	99.503	
3B1a		8.113	42.552	Yes	1A2d	Other	0.029	99.532	
2D3d		5.908	48.460	Yes	2G		0.028	99.560	
3B1b		5.413	53.873	Yes	1A2gviii	Gaseous	0.027	99.587	
1A3dii	Liquid	3.809	57.682	Yes	2C7b		0.025	99.611	
1B2av		3.480	61.161	Yes	3B4giv		0.025	99.636	
3Da2a		3.122	64.283	Yes	1A4ci	Liquid	0.024	99.660	
2B10a		2.936	67.219	Yes	1A4ai	Peat	0.023	99.684	
1A4bii	Liquid	2.658	69.876	Yes	1A4bi	Liquid	0.022	99.706	
2H2		2.499	72.376	Yes	1A3aii(i)	Liquid	0.020	99.726	
1B2aiv		2.430	74.806	Yes	1A1a	Liquid	0.020	99.745	
1A1a	Biomass	1.866	76.671	Yes	5D2		0.018	99.763	
2D3g		1.843	78.514	Yes	1A1b	Gaseous	0.018	99.781	
2D3i		1.777	80.291	Yes	1A3bii	Gasoline	0.017	99.798	
1A4cii	Liquid	1.492	81.783		1A2a	Solid	0.014	99.812	
1A3bv		1.462	83.245		1A2e	Biomass	0.014	99.826	
2I		1.447	84.691		1A4ai	Biomass	0.013	99.839	
2H1		1.440	86.132		1A2c	Gaseous	0.012	99.851	
1A2gvii	Liquid	1.251	87.383		1A2d	Gaseous	0.011	99.862	
3De		1.214	88.597		5D1		0.011	99.873	
3B4gii		1.089	89.686		1A2gviii	Liquid	0.011	99.884	
1A3bi	Gasoline	1.055	90.741		1A4bi	Peat	0.011	99.895	
1A3biv	Gasoline	0.905	91.646		2A3		0.011	99.906	
2D3e		0.802	92.448		1A2f	Other	0.009	99.915	
3B4h		0.625	93.073		1A2d	Liquid	0.009	99.924	
1A4aii	Liquid	0.544	93.617		1A2d	Peat	0.009	99.932	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A2d	Biomass	0.468	94.085		2C7c		0.007	99.940	
1A5a	Biomass	0.378	94.463		3B4d		0.006	99.946	
2D3h		0.363	94.826		1A2f	Biomass	0.006	99.952	
3B4gi		0.359	95.185		1A2e	Peat	0.006	99.957	
1A1a	Other	0.353	95.538		1A2a	Gaseous	0.005	99.963	
3B3		0.333	95.871		1A3biii	Gaseous	0.005	99.967	
3B4e		0.320	96.191		1A4ai	Gaseous	0.004	99.971	
1A4ci	Peat	0.309	96.500		1A2gviii	Peat	0.003	99.974	
2C1		0.253	96.753		1A2f	Liquid	0.003	99.976	
2D3b		0.240	96.993		1A4bi	Gaseous	0.002	99.979	
1A3bii	Diesel oil	0.209	97.202		2C3		0.002	99.981	
1A2gviii	Biomass	0.197	97.399		1A2c	Liquid	0.002	99.984	
1A1a	Peat	0.189	97.588		1A2f	Solid	0.002	99.986	
1A3biii	Diesel oil	0.184	97.772		1A3bi	Gaseous	0.002	99.988	
3B2		0.175	97.947		2C2		0.001	99.989	
1B2b		0.174	98.121		1A2e	Solid	0.001	99.991	
1A5a	Liquid	0.162	98.283		1A2b	Liquid	0.001	99.992	
1A4ciii	Liquid	0.108	98.391		1A1b	Biomass	0.001	99.993	
1A3c	Liquid	0.098	98.489		1A2e	Gaseous	0.001	99.994	
5A		0.088	98.577		1A2f	Gaseous	0.001	99.995	
1B1b		0.086	98.664		1A2e	Liquid	0.001	99.995	
1A3bi	Diesel oil	0.083	98.747		1A2c	Biomass	0.001	99.996	
1A3ai(i)	Liquid	0.080	98.827		2C7a		0.001	99.997	
1A1a	Solid	0.075	98.902		1A2a	Biomass	0.001	99.998	
1A4ai	Liquid	0.071	98.974		1A4ci	Gaseous	0.000	99.998	
1A1b	Liquid	0.067	99.041		1A2d	Solid	0.000	99.999	
3Da3		0.063	99.104		1A4ci	Solid	0.000	99.999	
2D3c		0.053	99.158		1A3bii	Gaseous	0.000	99.999	
1A5a	Gaseous	0.051	99.208		1A2b	Solid	0.000	100	
1A2gviii	Other	0.046	99.254		1A2b	Gaseous	0.000	100	
2B10b		0.046	99.300		1A2a	Liquid	0.000	100	
3B4giii		0.042	99.341		1A2c	Other	0.000	100	
2A1		0.038	99.379		1A1b	Solid	0.000	100	
1A4ci	Biomass	0.032	99.411		1A4bi	Other	0.000	100	
1A1a	Gaseous	0.032	99.443		1A3ei	Gaseous	0.000	100	

SO_x

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1a	Solid	16.574	16.574	Yes	1A3biii	Diesel oil	0.066	99.558	
1A1b	Gaseous	11.309	27.883	Yes	1A2f	Other	0.044	99.602	
1A1a	Peat	7.596	35.479	Yes	1A3aii(i)	Liquid	0.041	99.642	
1A2b	Solid	5.492	40.971	Yes	1A2d	Solid	0.039	99.681	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4ai	Liquid	5.098	46.069	Yes	1A4bi	Peat	0.034	99.715	
1A2d	Biomass	4.916	50.985	Yes	1A2gviii	Gaseous	0.032	99.747	
2C1		4.612	55.597	Yes	1A3bi	Diesel oil	0.029	99.777	
1A2b	Liquid	4.106	59.703	Yes	1A2f	Gaseous	0.026	99.802	
2B10a		3.915	63.618	Yes	1A2c	Biomass	0.023	99.825	
1B1b		3.896	67.514	Yes	1A2a	Liquid	0.023	99.848	
1A1a	Biomass	3.673	71.186	Yes	1A2gvii	Liquid	0.021	99.869	
2H1		2.686	73.873	Yes	1A2c	Other	0.021	99.890	
1A5a	Biomass	2.670	76.543	Yes	2G		0.020	99.910	
1A2a	Solid	2.581	79.124	Yes	2L		0.017	99.927	
1A2c	Liquid	2.457	81.582	Yes	1A4cii	Liquid	0.014	99.940	
1A2d	Liquid	1.954	83.536		1A3bii	Diesel oil	0.012	99.953	
1A5a	Liquid	1.655	85.191		1A2f	Biomass	0.009	99.962	
1A2gviii	Biomass	1.361	86.552		1A1a	Gaseous	0.007	99.969	
1A1a	Liquid	1.344	87.897		2C2		0.006	99.976	
1A4bi	Biomass	1.149	89.046		1A4aii	Liquid	0.006	99.981	
1A1b	Liquid	1.013	90.059		1A4bii	Liquid	0.004	99.985	
1A4ci	Peat	0.991	91.050		1A2a	Gaseous	0.003	99.988	
1A2f	Liquid	0.892	91.942		1A3biv	Gasoline	0.002	99.990	
1A2f	Solid	0.864	92.805		1A4ciii	Liquid	0.002	99.992	
1A4ci	Liquid	0.791	93.597		2D3i		0.001	99.993	
1A4bi	Liquid	0.627	94.224		1A2c	Gaseous	0.001	99.995	
1A1a	Other	0.576	94.799		1A2d	Gaseous	0.001	99.996	
2C7a		0.540	95.339		1A3c	Liquid	0.001	99.997	
1A2e	Peat	0.529	95.868		1A2a	Biomass	0.001	99.998	
1A5a	Gaseous	0.452	96.320		1A1b	Biomass	0.000	99.999	
1A2d	Peat	0.427	96.747		1A3bii	Gasoline	0.000	99.999	
1A2gviii	Liquid	0.403	97.150		2C7c		0.000	99.999	
1A2e	Solid	0.396	97.547		1A1b	Solid	0.000	99.999	
1A2d	Other	0.214	97.761		1A4ai	Gaseous	0.000	99.999	
1A3dii	Liquid	0.204	97.965		1A2e	Gaseous	0.000	100	
1A4ci	Solid	0.202	98.167		2D3g		0.000	100	
1A3ai(i)	Liquid	0.193	98.360		1A3bi	Gaseous	0.000	100	
1A2e	Liquid	0.180	98.540		1A3biii	Gaseous	0.000	100	
1A4ci	Biomass	0.174	98.713		1A4bi	Gaseous	0.000	100	
1A2e	Biomass	0.171	98.884		1A3biv	Diesel oil	0.000	100	
1A2gviii	Other	0.143	99.027		1A4bi	Other	0.000	100	
2C7b		0.137	99.165		1A2b	Gaseous	0.000	100	
1A4ai	Peat	0.089	99.254		1A4ci	Gaseous	0.000	100	
1A2gviii	Peat	0.082	99.336		1A3bii	Gaseous	0.000	100	
1A4ai	Biomass	0.080	99.415		1A3ei	Gaseous	0.000	100	
1A3bi	Gasoline	0.076	99.492						

NH3

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
3Da2a		22.867	22.867	Yes	3B4giv		0.088	99.594	
3B1a		17.677	40.544	Yes	1A3bii	Diesel oil	0.071	99.665	
3B1b		16.541	57.085	Yes	2G		0.057	99.722	
3Da1		11.417	68.502	Yes	2L		0.056	99.778	
3B3		5.456	73.958	Yes	1A2gviii		0.039	99.817	
1A4bi	Biomass	3.348	77.306	Yes	1A4ci	Biomass	0.035	99.852	
3Da3		3.254	80.561	Yes	2C7b		0.030	99.882	
3B4h		3.088	83.649		3B4d		0.018	99.900	
3B4gii		2.058	85.706		1A4ai	Biomass	0.018	99.918	
6A		1.999	87.706		2D3e		0.014	99.932	
1A3bi	Gasoline	1.669	89.375		1A3bi	Gaseous	0.013	99.945	
3B4e		1.359	90.734		1B1b		0.010	99.955	
3Da4		1.339	92.073		1A2gvii	Liquid	0.010	99.964	
3Da2c		1.332	93.405		2D3g		0.008	99.972	
5D1		1.257	94.662		1A3biv	Gasoline	0.006	99.978	
3B4gi		0.873	95.535		1A4cii	Liquid	0.006	99.984	
2B10a		0.677	96.212		1A3bii	Gasoline	0.005	99.989	
5B2		0.633	96.846		1A3dii	Liquid	0.002	99.991	
2H1		0.513	97.359		1A4aii	Liquid	0.002	99.994	
2D3i		0.425	97.784		2C7c		0.002	99.995	
1A1a		0.288	98.072		1A3biii	Gaseous	0.001	99.997	
3B2		0.281	98.353		1A4bii	Liquid	0.001	99.998	
3B4giii		0.279	98.632		1A4ciii	Liquid	0.001	99.998	
3Da2b		0.244	98.876		1A3bii	Gaseous	0.001	99.999	
5B1		0.243	99.119		1A3c	Liquid	0.000	100	
1A3bi	Diesel oil	0.167	99.287		1A5a	Liquid	0.000	100	
2C1		0.123	99.409		1A3biv	Diesel oil	0.000	100	
1A3biii	Diesel oil	0.097	99.506						

PM2.5

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	55.860	55.860	Yes	1A2d	Other	0.044	99.540	
1A2d	Biomass	5.081	60.941	Yes	1A4ci	Liquid	0.039	99.580	
1A3bvi		4.587	65.528	Yes	1A2c	Biomass	0.039	99.618	
1A3bvii		3.471	68.998	Yes	2C7c		0.039	99.657	
2H2		2.879	71.877	Yes	3B4h		0.037	99.694	
1A5a	Biomass	2.092	73.969	Yes	1A2gviii	Liquid	0.032	99.725	
1A3dii	Liquid	2.044	76.012	Yes	1A2d	Peat	0.027	99.752	
1B1c		1.986	77.999	Yes	3B4giii		0.022	99.774	
3Dc		1.555	79.554	Yes	1A2e	Liquid	0.017	99.791	
1A2gvii	Liquid	1.525	81.078	Yes	1A2b	Liquid	0.016	99.807	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
2H1		1.322	82.400		2A3		0.016	99.823	
2C1		1.260	83.660		3B3		0.014	99.837	
2B10a		1.172	84.831		1A4ai	Peat	0.014	99.851	
1A4cii	Liquid	1.020	85.851		1A2f	Other	0.013	99.864	
1A3bii	Diesel oil	0.956	86.807		1A2e	Biomass	0.011	99.874	
1A4bii	Liquid	0.891	87.699		1A3aii(i)	Liquid	0.011	99.885	
5E		0.886	88.585		5C1bv		0.010	99.895	
2G		0.850	89.435		1A1a	Other	0.010	99.905	
1A3bi	Diesel oil	0.825	90.260		2B10b		0.010	99.916	
1A4ci	Biomass	0.740	91.000		1A2a	Solid	0.009	99.925	
1A4ai	Liquid	0.639	91.639		1A3biv	Diesel oil	0.009	99.934	
1A3biii	Diesel oil	0.628	92.267		2I		0.007	99.941	
1A2gviii	Biomass	0.596	92.863		3B2		0.006	99.947	
1A1a	Biomass	0.541	93.404		2A5b		0.006	99.953	
1A4aii	Liquid	0.467	93.871		1A2e	Solid	0.005	99.959	
2C2		0.418	94.289		1A2e	Peat	0.005	99.963	
2D3i		0.415	94.704		2C7d		0.004	99.968	
1A2d	Liquid	0.409	95.113		1A2gviii	Peat	0.004	99.971	
3B1a		0.400	95.514		2C7a		0.004	99.975	
1A4ai	Biomass	0.389	95.903		2D3d		0.003	99.979	
3B1b		0.369	96.272		1A2gviii	Other	0.003	99.982	
1A1a	Peat	0.328	96.600		1A3bi	Gaseous	0.003	99.984	
1A4ciii	Liquid	0.299	96.899		1A2f	Solid	0.002	99.986	
1A1a	Solid	0.296	97.194		1A4ci	Solid	0.002	99.988	
2D3b		0.293	97.487		2A2		0.002	99.990	
1A5a	Liquid	0.281	97.768		2A5a		0.002	99.991	
1A3c	Liquid	0.178	97.946		1A2b	Solid	0.001	99.993	
1A4ci	Peat	0.172	98.118		1A3biii	Gaseous	0.001	99.994	
1A1a	Liquid	0.141	98.259		1B2av		0.001	99.994	
1A3bi	Gasoline	0.135	98.394		2C3		0.001	99.995	
2A5c		0.128	98.522		5A		0.001	99.996	
1A4bi	Liquid	0.112	98.634		2D3g		0.001	99.996	
1A1b	Liquid	0.101	98.735		1B2aiv		0.001	99.997	
1A4bi	Peat	0.095	98.830		1A2c	Other	0.001	99.998	
1A2f	Liquid	0.094	98.924		1A3bii	Gasoline	0.000	99.998	
3B4gi		0.084	99.009		1A2d	Solid	0.000	99.998	
1A2c	Liquid	0.084	99.092		1A1b	Solid	0.000	99.999	
3B4giv		0.072	99.164		1A2a	Liquid	0.000	99.999	
3B4gii		0.071	99.235		3B4d		0.000	99.999	
1A3biv	Gasoline	0.058	99.294		1A3bii	Gaseous	0.000	100	
1B1b		0.056	99.350		1A2f	Biomass	0.000	100	
2L		0.055	99.405		1A2a	Biomass	0.000	100	
3B4e		0.046	99.451		1A4bi	Other	0.000	100	
1A3ai(i)	Liquid	0.046	99.496						

PM10

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	29.378	29.378	Yes	1A4bi	Peat	0.055	99.342	
1A3bvii		20.814	50.191	Yes	2L		0.044	99.386	
3Dc		14.297	64.488	Yes	2B10b		0.041	99.428	
1A5a	Biomass	5.541	70.030	Yes	3B4h		0.037	99.465	
1A3bvi		4.243	74.273	Yes	3B4e		0.037	99.502	
1A2d	Biomass	4.223	78.496	Yes	1A4ai	Peat	0.036	99.538	
2H2		1.501	79.997	Yes	1A2gviii	Liquid	0.036	99.574	
1B1c		1.441	81.438	Yes	1A2d	Peat	0.030	99.604	
2B10a		1.386	82.824		1A2e	Biomass	0.030	99.634	
1A1a	Biomass	1.376	84.200		1A3biv	Gasoline	0.030	99.664	
1A3dii	Liquid	1.072	85.272		2A5b		0.027	99.690	
2H1		1.018	86.290		1A1a	Other	0.024	99.714	
1A2gvii	Liquid	0.777	87.067		2C7c		0.023	99.737	
1A1a	Peat	0.773	87.839		1A3ai(i)	Liquid	0.023	99.761	
2C1		0.708	88.547		1A2c	Biomass	0.023	99.783	
1A2gviii	Biomass	0.631	89.178		2C7d		0.021	99.805	
2A5c		0.628	89.806		1A2a	Solid	0.021	99.826	
1A4ai	Liquid	0.576	90.382		1A2e	Liquid	0.018	99.844	
3B4gi		0.573	90.955		1A2f	Solid	0.016	99.860	
1A4cii	Liquid	0.519	91.475		1A2b	Liquid	0.015	99.875	
1A3bii	Diesel oil	0.487	91.962		1A2e	Solid	0.014	99.889	
1A1a	Solid	0.477	92.439		1A2e	Peat	0.012	99.901	
1A4ci	Peat	0.454	92.893		1A2f	Other	0.012	99.913	
1A4bii	Liquid	0.454	93.347		3B2		0.010	99.923	
5E		0.452	93.799		2A3		0.009	99.932	
2G		0.433	94.232		1A2gviii	Other	0.008	99.940	
1A3bi	Diesel oil	0.420	94.652		2A5a		0.008	99.948	
1A4ci	Biomass	0.413	95.065		1A3aii(i)	Liquid	0.005	99.953	
3B4gii		0.362	95.427		5C1bv		0.005	99.958	
1A3biii	Diesel oil	0.320	95.747		1A2gviii	Peat	0.005	99.964	
3B1a		0.313	96.061		1A2b	Solid	0.005	99.969	
2C2		0.302	96.362		1A4ci	Solid	0.005	99.973	
3B1b		0.289	96.652		1A3biv	Diesel oil	0.005	99.978	
3B4giv		0.258	96.909		2A2		0.004	99.982	
1A4aii	Liquid	0.238	97.147		2D3d		0.003	99.985	
2D3i		0.229	97.376		2C7a		0.002	99.987	
1A4ai	Biomass	0.205	97.581		5A		0.002	99.989	
1A5a	Liquid	0.199	97.779		1A2f	Biomass	0.002	99.991	
1A4cii	Liquid	0.169	97.949		1A3bi	Gaseous	0.001	99.992	
2D3b		0.163	98.112		1A2a	Biomass	0.001	99.993	
3B3		0.158	98.270		2C3		0.001	99.994	
1A2c	Liquid	0.104	98.374		1B2aiv		0.001	99.995	
1A2d	Liquid	0.103	98.477		1A1b	Solid	0.001	99.996	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3c	Liquid	0.095	98.572		1A2a	Liquid	0.001	99.997	
1A2f	Liquid	0.094	98.667		1A2c	Other	0.001	99.997	
1A1a	Liquid	0.090	98.757		1A2d	Solid	0.001	99.998	
1A1b	Liquid	0.081	98.838		2D3g		0.001	99.998	
1A4bi	Liquid	0.073	98.911		3B4d		0.000	99.999	
1A3bi	Gasoline	0.069	98.980		1A3biii	Gaseous	0.000	99.999	
1B1b		0.068	99.048		1B2av		0.000	100	
3B4giii		0.061	99.109		1A3bii	Gasoline	0.000	100	
1A2d	Other	0.060	99.169		1A3bii	Gaseous	0.000	100	
2I		0.060	99.229		1A4bi	Other	0.000	100	
1A4ci	Liquid	0.059	99.288						

TSP

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3bvii		27.092	27.092	Yes	3B4h		0.055	99.236	
1A4bi	Biomass	19.916	47.008	Yes	1A4bi	Liquid	0.053	99.289	
1A5a	Biomass	13.871	60.879	Yes	3B4e		0.052	99.341	
3Dc		9.305	70.184	Yes	1A1a	Other	0.048	99.389	
1A3bvi		3.721	73.905	Yes	1A3bi	Gasoline	0.045	99.434	
1A2d	Biomass	3.195	77.100	Yes	3B4giii		0.039	99.474	
1A1a	Biomass	1.865	78.965	Yes	1A4bi	Peat	0.039	99.513	
1A1a	Peat	1.772	80.737	Yes	2L		0.038	99.551	
3B4gi		1.771	82.508		1A2gviii	Liquid	0.038	99.589	
1B1c		1.435	83.943		1A2e	Biomass	0.037	99.626	
1A4ci	Peat	1.137	85.081		1A2a	Solid	0.036	99.662	
2A5c		1.062	86.143		2C7d		0.028	99.690	
2B10a		1.033	87.176		1A2d	Peat	0.025	99.715	
2H2		1.012	88.189		1A2f	Solid	0.024	99.739	
2H1		0.730	88.918		2C7c		0.024	99.762	
1A2gviii	Biomass	0.724	89.643		1A2e	Peat	0.022	99.785	
1A3dii	Liquid	0.698	90.341		1A3biv	Gasoline	0.019	99.804	
3B3		0.669	91.010		1A2c	Biomass	0.019	99.823	
2C1		0.548	91.557		1A2f	Other	0.017	99.840	
1A2gvii	Liquid	0.506	92.063		1A2e	Liquid	0.016	99.856	
1A4ai	Liquid	0.502	92.565		1A3ai(i)	Liquid	0.015	99.871	
3B4gii		0.472	93.036		3B2		0.015	99.886	
3B1a		0.447	93.483		1A2e	Solid	0.014	99.900	
3B1b		0.407	93.890		1A2b	Solid	0.012	99.912	
1A1a	Solid	0.395	94.285		1A2b	Liquid	0.012	99.924	
1A4cii	Liquid	0.338	94.623		2A5a		0.010	99.935	
1A3bii	Diesel oil	0.317	94.940		2A2		0.007	99.941	
1A4bii	Liquid	0.296	95.235		1A2gviii	Peat	0.007	99.948	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4ci	Biomass	0.295	95.530		2A3		0.007	99.955	
5E		0.294	95.824		1A2gviii	Other	0.007	99.961	
2G		0.282	96.106		1A4ci	Solid	0.006	99.967	
1A3bi	Diesel oil	0.274	96.380		5C1bv		0.004	99.971	
2C2		0.231	96.611		1A2f	Biomass	0.004	99.975	
1A3biii	Diesel oil	0.208	96.819		1A3aii(i)	Liquid	0.003	99.978	
2I		0.200	97.018		5A		0.003	99.981	
1A1b	Liquid	0.190	97.209		1A3biv	Diesel oil	0.003	99.984	
3B4giv		0.176	97.385		1A2a	Biomass	0.003	99.987	
1A5a	Liquid	0.173	97.558		2C7a		0.002	99.989	
2D3i		0.160	97.718		2D3d		0.002	99.991	
1A4aii	Liquid	0.155	97.873		1A1b	Solid	0.002	99.994	
2D3b		0.141	98.014		2C3		0.001	99.995	
1A4ai	Biomass	0.139	98.153		1A3bi	Gaseous	0.001	99.995	
1A2d	Liquid	0.136	98.289		1A2a	Liquid	0.001	99.996	
1A4ciii	Liquid	0.110	98.399		3B4d		0.001	99.997	
1B1b		0.106	98.505		1B2aiv		0.001	99.998	
1A1a	Liquid	0.093	98.598		2D3g		0.001	99.998	
1A4ai	Peat	0.091	98.689		1A2d	Solid	0.001	99.999	
2B10b		0.084	98.773		1A2c	Other	0.000	99.999	
1A2c	Liquid	0.080	98.852		1A3biii	Gaseous	0.000	99.999	
1A2f	Liquid	0.077	98.929		1B2av		0.000	100	
1A4ci	Liquid	0.069	98.998		1A3bii	Gasoline	0.000	100	
1A3c	Liquid	0.065	99.064		1A3bii	Gaseous	0.000	100	
1A2d	Other	0.061	99.125		1A4bi	Other	0.000	100	
2A5b		0.056	99.182						

BC

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	70.137	70.137	Yes	1A4ci	Peat	0.024	99.782	
1A3bvi		5.067	75.204	Yes	1A3aii(i)	Liquid	0.022	99.804	
1A2gvii	Liquid	3.975	79.179	Yes	5C1bv		0.022	99.826	
1A3bvii		2.902	82.081	Yes	1A2e	Liquid	0.022	99.848	
1A5a	Biomass	2.507	84.587		1A3biv	Diesel oil	0.022	99.870	
1A3bii	Diesel oil	2.251	86.839		2C1		0.019	99.889	
1A3bi	Diesel oil	2.012	88.851		2G		0.016	99.906	
1A4cii	Liquid	1.885	90.736		1A2b	Liquid	0.016	99.922	
1A3dii	Liquid	1.561	92.297		1A2f	Other	0.016	99.938	
1A3biii	Diesel oil	1.424	93.721		1A1b	Liquid	0.014	99.952	
1A4ai	Liquid	0.829	94.550		1A4bi	Peat	0.013	99.965	
1A4bii	Liquid	0.752	95.301		1A2c	Biomass	0.009	99.974	
1A5a	Liquid	0.511	95.812		1A2d	Other	0.009	99.983	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3c	Liquid	0.494	96.307		1A2d	Peat	0.004	99.987	
1A4aii	Liquid	0.490	96.796		1A2e	Biomass	0.003	99.990	
1A4ciii	Liquid	0.441	97.237		1A2gviii	Other	0.002	99.992	
5E		0.327	97.565		1A4ai	Peat	0.002	99.994	
1A2d	Biomass	0.283	97.847		1A1a	Other	0.002	99.996	
2C2		0.179	98.026		1A2a	Solid	0.001	99.997	
1A2d	Liquid	0.173	98.199		1A2e	Peat	0.001	99.997	
1A4bi	Liquid	0.160	98.360		1A2gviii	Peat	0.001	99.998	
2H1		0.147	98.507		1A2e	Solid	0.001	99.998	
1B1b		0.118	98.624		1A2a	Liquid	0.000	99.999	
1A1a	Liquid	0.117	98.741		1A2f	Solid	0.000	99.999	
1A4ci	Biomass	0.102	98.843		1A4ci	Solid	0.000	99.999	
1A3ai(i)	Liquid	0.098	98.941		1A2b	Solid	0.000	99.999	
1A2c	Liquid	0.095	99.036		1A4bi	Other	0.000	100	
2B10a		0.090	99.126		1A3bii	Gasoline	0.000	100	
1A2gviii	Biomass	0.084	99.211		2C3		0.000	100	
1A2f	Liquid	0.084	99.295		1A2c	Other	0.000	100	
1A1a	Biomass	0.077	99.372		2D3i		0.000	100	
2D3b		0.071	99.443		2A3		0.000	100	
1A3bi	Gasoline	0.069	99.513		1A2d	Solid	0.000	100	
1A4ai	Biomass	0.054	99.566		2A2		0.000	100	
1A4ci	Liquid	0.054	99.620		1A2f	Biomass	0.000	100	
1A1a	Peat	0.046	99.666		1A1b	Solid	0.000	100	
1A2gviii	Liquid	0.036	99.702		1A2a	Biomass	0.000	100	
1A1a	Solid	0.028	99.730		2C7a		0.000	100	
1A3biv	Gasoline	0.027	99.757						

CO

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	46.358	46.358	Yes	1A1a	Liquid	0.047	99.513	
1A4bii	Liquid	11.256	57.615	Yes	1A2a	Gaseous	0.042	99.556	
1A3dii	Liquid	6.723	64.338	Yes	1A1b	Gaseous	0.040	99.596	
1A3bi	Gasoline	5.250	69.588	Yes	1A2d	Peat	0.039	99.635	
1A4aii	Liquid	4.959	74.546	Yes	1A2f	Biomass	0.036	99.670	
1A5a	Biomass	4.594	79.141	Yes	2C1		0.032	99.702	
1A2d	Biomass	4.541	83.681	Yes	1A2gviii	Gaseous	0.028	99.731	
1A1a	Biomass	4.091	87.772		1A2gviii	Peat	0.027	99.758	
1A4cii	Liquid	2.528	90.300		1A2b	Liquid	0.027	99.785	
1A2gvii	Liquid	2.149	92.449		1A2e	Peat	0.027	99.811	
1A3biv	Gasoline	0.898	93.347		1A4ci	Liquid	0.026	99.837	
1A2gviii	Biomass	0.834	94.181		1A4bi	Liquid	0.023	99.860	
1A3biii	Diesel oil	0.651	94.832		1A3bi	Gaseous	0.016	99.876	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A2f	Liquid	0.554	95.386		1A2gviii	Liquid	0.016	99.892	
1A4ci	Biomass	0.503	95.889		1A2gviii	Other	0.014	99.906	
1A1a	Peat	0.405	96.294		1A2c	Gaseous	0.009	99.915	
1A5a	Liquid	0.341	96.636		1A2f	Gaseous	0.009	99.924	
1A3bii	Diesel oil	0.280	96.916		1A4ai	Gaseous	0.009	99.933	
1A4ai	Biomass	0.250	97.166		1A3biv	Diesel oil	0.007	99.940	
1A2f	Other	0.210	97.376		1A3biii	Gaseous	0.006	99.947	
1A2f	Solid	0.210	97.586		1A4ai	Peat	0.006	99.953	
1A3ai(i)	Liquid	0.202	97.789		1A4bi	Gaseous	0.006	99.959	
1A2a	Solid	0.183	97.972		1A2c	Biomass	0.005	99.964	
1A3bi	Diesel oil	0.160	98.132		1A1b	Biomass	0.005	99.969	
1A5a	Gaseous	0.123	98.255		2C7a		0.005	99.974	
1A1b	Liquid	0.096	98.351		1A2e	Gaseous	0.004	99.978	
1A2d	Other	0.094	98.444		1A2e	Liquid	0.003	99.981	
1A4ciii	Liquid	0.088	98.532		1A1b	Solid	0.003	99.984	
1A1a	Gaseous	0.088	98.619		1A2e	Solid	0.003	99.987	
1A2d	Gaseous	0.086	98.705		1A4bi	Peat	0.003	99.990	
1A3bii	Gasoline	0.081	98.786		1A3bii	Gaseous	0.003	99.992	
2G		0.079	98.866		1A2a	Liquid	0.002	99.994	
1A4ci	Peat	0.079	98.945		1A2b	Solid	0.001	99.996	
1A2e	Biomass	0.079	99.023		1A4ci	Solid	0.001	99.997	
1A2c	Liquid	0.077	99.100		1A4ci	Gaseous	0.001	99.998	
1A3aii(i)	Liquid	0.077	99.177		1A2c	Other	0.001	99.999	
1A4ai	Liquid	0.070	99.247		1A2b	Gaseous	0.001	100	
1A3c	Liquid	0.058	99.305		1A2a	Biomass	0.000	100	
1A1a	Other	0.057	99.362		1A2d	Solid	0.000	100	
1A1a	Solid	0.054	99.416		1A4bi	Other	0.000	100	
1A2d	Liquid	0.050	99.467		1A3ei	Gaseous	0.000	100	

Pb

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1b	Liquid	24.974	24.974	Yes	1A2e	Biomass	0.075	99.540	
1A2d	Biomass	19.651	44.625	Yes	1A3dii	Liquid	0.070	99.610	
1A5a	Biomass	10.205	54.830	Yes	1A2gviii	Other	0.057	99.666	
2G		8.707	63.537	Yes	1A4bi	Peat	0.055	99.721	
1A1a	Peat	6.261	69.799	Yes	1A2f	Liquid	0.048	99.769	
1A1a	Biomass	4.935	74.734	Yes	1A1b	Solid	0.038	99.807	
1A4bi	Biomass	3.903	78.636	Yes	1A4ciii	Liquid	0.035	99.842	
1A3bvi		3.783	82.419	Yes	2C7a		0.024	99.866	
2C1		3.099	85.518		1A2gviii	Liquid	0.016	99.882	
1A2f	Solid	2.832	88.350		1A3bi	Gasoline	0.015	99.897	
2C7c		2.479	90.829		1A2e	Liquid	0.015	99.912	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4ci	Peat	1.602	92.430		1A2f	Other	0.012	99.924	
1A2d	Other	1.258	93.689		1A4ci	Liquid	0.010	99.933	
1A1a	Other	1.059	94.748		5C1bv		0.010	99.943	
1A2gviii	Biomass	0.800	95.548		1A2gviii	Peat	0.009	99.952	
1A2e	Peat	0.619	96.167		2B10a		0.008	99.960	
1A4ci	Biomass	0.550	96.717		1A2d	Peat	0.008	99.968	
1A3aii(i)	Liquid	0.404	97.121		1A2b	Liquid	0.006	99.974	
1A4ai	Liquid	0.313	97.434		1A3biii	Diesel oil	0.006	99.980	
1A4ai	Biomass	0.270	97.703		1A2a	Biomass	0.004	99.984	
1A5a	Liquid	0.260	97.964		1A2f	Biomass	0.003	99.987	
1A1a	Solid	0.219	98.183		5E		0.003	99.990	
1A2c	Liquid	0.197	98.380		1A2c	Biomass	0.003	99.993	
2C2		0.197	98.577		1A3bi	Diesel oil	0.002	99.995	
2C6		0.192	98.769		1A4ci	Solid	0.002	99.998	
1B1b		0.153	98.921		1A3bii	Diesel oil	0.001	99.999	
1A4ai	Peat	0.143	99.065		1A2c	Other	0.001	99.999	
1A2d	Liquid	0.113	99.178		1A3biv	Gasoline	0.000	100	
1A2e	Solid	0.110	99.288		1A2d	Solid	0.000	100	
1A1a	Liquid	0.097	99.385		1A3bii	Gasoline	0.000	100	
2C3		0.080	99.465		1A3biv	Diesel oil	0.000	100	

Cd

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A2d	Biomass	19.354	19.354	Yes	1A4ciii	Liquid	0.042	99.600	
1A4bi	Biomass	18.463	37.817	Yes	2C2		0.042	99.642	
1A5a	Biomass	17.881	55.698	Yes	1A2f	Other	0.038	99.680	
1A1a	Biomass	10.965	66.663	Yes	1A2c	Liquid	0.037	99.717	
1A1b	Liquid	8.984	75.647	Yes	1A4ai	Peat	0.037	99.754	
2C7c		4.575	80.222	Yes	1B1b		0.035	99.789	
2G		3.165	83.387		1A3bi	Gasoline	0.030	99.819	
1A1a	Other	2.852	86.239		1A1a	Liquid	0.026	99.845	
1A4ci	Biomass	2.493	88.733		5C1bv		0.026	99.871	
1A1a	Peat	1.774	90.507		1A3c	Liquid	0.024	99.895	
1A2gviii	Biomass	1.524	92.031		1A2f	Liquid	0.021	99.916	
1A4ai	Biomass	1.275	93.306		1A4bi	Peat	0.014	99.931	
2C6		1.169	94.475		1A1b	Solid	0.014	99.944	
1A2f	Solid	1.019	95.495		1A3biii	Diesel oil	0.009	99.953	
2C1		0.844	96.338		1A2c	Biomass	0.008	99.961	
1A2gvii	Liquid	0.475	96.813		1A2a	Biomass	0.007	99.968	
1A4ci	Peat	0.416	97.229		1A2f	Biomass	0.007	99.975	
2C3		0.409	97.638		1A2gviii	Liquid	0.004	99.979	
1A4cii	Liquid	0.301	97.939		1A3bi	Diesel oil	0.004	99.983	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1a	Solid	0.253	98.192		1A2e	Liquid	0.003	99.986	
1A3bvi		0.222	98.414		2C7a		0.003	99.988	
1A2e	Peat	0.161	98.575		1A2gviii	Peat	0.002	99.991	
1A2e	Biomass	0.135	98.711		1A4ci	Liquid	0.002	99.993	
1A2gviii	Other	0.133	98.844		1A4ci	Solid	0.002	99.994	
1A2d	Other	0.131	98.975		1A3bii	Diesel oil	0.002	99.996	
1A4aii	Liquid	0.120	99.095		1A2c	Other	0.001	99.997	
5E		0.096	99.191		1A2b	Liquid	0.001	99.998	
1A3dii	Liquid	0.088	99.278		1A3biv	Gasoline	0.001	99.999	
1A4bii	Liquid	0.072	99.350		1A2d	Peat	0.000	100	
1A5a	Liquid	0.060	99.410		1A3bii	Gasoline	0.000	100	
1A4ai	Liquid	0.059	99.470		1A2d	Solid	0.000	100	
1A2d	Liquid	0.045	99.515		1A3biv	Diesel oil	0.000	100	
1A2e	Solid	0.043	99.558						

Hg

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
2C1		16.286	16.286	Yes	5E		0.149	99.204	
1A2d	Biomass	13.393	29.680	Yes	1A2gviii	Peat	0.134	99.337	
1A1a	Biomass	10.750	40.430	Yes	1A2d	Other	0.090	99.428	
1A1a	Peat	7.506	47.936	Yes	1A2e	Solid	0.083	99.510	
1A2gviii	Other	7.230	55.166	Yes	1A2e	Biomass	0.067	99.578	
2B10a		7.104	62.269	Yes	1A3biv	Gasoline	0.061	99.639	
5C1bv		5.118	67.387	Yes	1A5a	Liquid	0.061	99.700	
1A4bi	Biomass	4.785	72.173	Yes	1A4ai	Peat	0.054	99.753	
1A2f	Liquid	4.383	76.556	Yes	1A2c	Biomass	0.047	99.801	
1A1a	Solid	3.189	79.745	Yes	1A2gviii	Liquid	0.040	99.841	
1A1b	Liquid	2.897	82.641	Yes	1A2d	Liquid	0.030	99.871	
1A5a	Biomass	2.781	85.422		1A4bi	Peat	0.021	99.891	
1A3bi	Gasoline	2.036	87.458		1A4ci	Solid	0.019	99.910	
1A2f	Solid	1.541	88.999		2G		0.016	99.926	
1A3biii	Diesel oil	1.452	90.451		1A2d	Solid	0.015	99.941	
1A2f	Other	1.056	91.507		1A2a	Solid	0.011	99.952	
2C7c		0.995	92.502		1A4ai	Liquid	0.009	99.962	
1A1a	Other	0.975	93.476		1A2f	Biomass	0.007	99.969	
1A2gviii	Biomass	0.829	94.305		1A3bii	Gasoline	0.006	99.975	
2C6		0.698	95.003		1A1a	Liquid	0.006	99.981	
1A3bi	Diesel oil	0.645	95.648		1A2c	Liquid	0.006	99.987	
1A4ci	Biomass	0.643	96.291		1A1b	Solid	0.004	99.992	
1A4ci	Peat	0.601	96.891		1B1b		0.002	99.994	
2C2		0.385	97.277		1A2c	Other	0.002	99.996	
1A3dii	Liquid	0.380	97.657		1A3biv	Diesel oil	0.001	99.997	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4ai	Biomass	0.331	97.987		1A2a	Biomass	0.001	99.998	
1A2e	Peat	0.314	98.301		2C7a		0.001	99.999	
1A2d	Peat	0.284	98.585		1A2b	Liquid	0.001	99.999	
1A3bii	Diesel oil	0.274	98.858		1A2e	Liquid	0.000	100	
1A4ciii	Liquid	0.196	99.055		1A4ci	Liquid	0.000	100	

As

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1b	Liquid	30.430	30.430	Yes	1A4ciii	Liquid	0.079	99.307	
1A1a	Peat	24.547	54.977	Yes	5E		0.071	99.379	
1A2d	Biomass	6.304	61.281	Yes	1A2f	Liquid	0.071	99.449	
1A4ci	Peat	5.652	66.933	Yes	1A2gviii	Peat	0.067	99.517	
2C7a		4.150	71.083	Yes	2C2		0.067	99.584	
2C7c		3.884	74.967	Yes	1A2d	Other	0.065	99.649	
1A2f	Solid	3.461	78.428	Yes	1A2d	Peat	0.059	99.708	
2C1		3.075	81.503	Yes	1A2gviii	Other	0.050	99.758	
1A4bi	Biomass	2.890	84.394		1A1a	Liquid	0.048	99.805	
1A3bvi		2.491	86.884		1A1b	Solid	0.046	99.852	
1A2e	Peat	2.191	89.075		5C1bv		0.033	99.884	
1A1a	Solid	1.993	91.067		1A4ci	Solid	0.032	99.916	
1A5a	Biomass	1.680	92.747		1A3bi	Gasoline	0.021	99.937	
1A1a	Biomass	1.508	94.255		1A2e	Biomass	0.014	99.951	
1A1a	Other	1.233	95.487		1A2gviii	Liquid	0.011	99.962	
2C6		0.765	96.252		1A3biii	Diesel oil	0.008	99.970	
1A4ai	Peat	0.506	96.758		1A2e	Liquid	0.006	99.976	
1A4ci	Biomass	0.386	97.144		1A4ci	Liquid	0.006	99.982	
1A3dii	Liquid	0.299	97.443		1A2b	Liquid	0.004	99.985	
1A2e	Solid	0.243	97.686		1A3bi	Diesel oil	0.004	99.989	
1A4ai	Biomass	0.200	97.886		1A2d	Solid	0.003	99.992	
1A4bi	Peat	0.194	98.079		1A2c	Biomass	0.002	99.994	
1A4ai	Liquid	0.185	98.265		1A2f	Other	0.002	99.996	
1B1b		0.171	98.436		1A3bii	Diesel oil	0.002	99.998	
1A5a	Liquid	0.170	98.606		1A2f	Biomass	0.001	99.998	
1A2gviii	Biomass	0.152	98.757		1A2a	Biomass	0.001	99.999	
1A2d	Liquid	0.131	98.888		1A3biv	Gasoline	0.001	100	
1A2c	Liquid	0.117	99.005		1A2c	Other	0.000	100	
2C3		0.113	99.119		1A3bii	Gasoline	0.000	100	
2G		0.109	99.228		1A3biv	Diesel oil	0.000	100	

Cr

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1b	Liquid	28.362	28.362	Yes	1A3dii	Liquid	0.042	99.657	
2C1		14.603	42.965	Yes	1A2d	Other	0.041	99.698	
1A4bi	Biomass	12.257	55.222	Yes	1A4bi	Peat	0.041	99.739	
1A3bvi		9.454	64.675	Yes	1A2c	Biomass	0.038	99.777	
2C2		7.214	71.889	Yes	1A3bi	Diesel oil	0.038	99.815	
1A5a	Biomass	7.122	79.012	Yes	1A4aii	Liquid	0.034	99.849	
1A1a	Peat	4.645	83.657	Yes	1A4bii	Liquid	0.020	99.869	
1A2f	Solid	3.236	86.893		1A2d	Liquid	0.018	99.887	
1A1a	Biomass	3.087	89.980		1A3bii	Diesel oil	0.016	99.903	
1A4ci	Biomass	1.638	91.618		1A5a	Liquid	0.013	99.916	
1A2b	Solid	1.453	93.071		1A4ciii	Liquid	0.012	99.928	
1A4ci	Peat	1.184	94.254		1A4ai	Liquid	0.011	99.939	
1A4ai	Biomass	0.847	95.101		5E		0.008	99.947	
1A1a	Other	0.717	95.818		1A2c	Liquid	0.007	99.954	
1A2d	Biomass	0.651	96.469		1A2gviii	Peat	0.007	99.961	
1A1a	Solid	0.610	97.079		1A3c	Liquid	0.007	99.968	
1A2gviii	Biomass	0.579	97.659		2C7a		0.006	99.974	
1A2e	Peat	0.458	98.116		1A1a	Liquid	0.005	99.979	
1A2f	Other	0.295	98.411		5C1bv		0.004	99.983	
2G		0.155	98.567		1A2d	Peat	0.003	99.986	
1A2gvii	Liquid	0.135	98.702		1A2a	Biomass	0.003	99.989	
1A2f	Liquid	0.132	98.833		1A2f	Biomass	0.003	99.991	
1A2e	Solid	0.125	98.958		1A4ci	Solid	0.002	99.994	
1A4ai	Peat	0.106	99.064		1A2b	Liquid	0.002	99.996	
1B1b		0.096	99.160		1A3biv	Gasoline	0.002	99.997	
1A2gviii	Other	0.087	99.247		1A2gviii	Liquid	0.001	99.998	
1A4cii	Liquid	0.086	99.332		1A2e	Liquid	0.001	99.999	
1A3biii	Diesel oil	0.085	99.418		1A2d	Solid	0.000	99.999	
1A3bi	Gasoline	0.054	99.472		1A4ci	Liquid	0.000	99.999	
2C7c		0.052	99.524		1A2c	Other	0.000	100	
1A2e	Biomass	0.048	99.572		1A3bii	Gasoline	0.000	100	
1A1b	Solid	0.043	99.615		1A3biv	Diesel oil	0.000	100	

Cu

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3bvi		76.534	76.534	Yes	1A2e	Biomass	0.023	99.833	
1A5a	Biomass	3.731	80.265	Yes	1A4bi	Peat	0.023	99.856	
1A1b	Liquid	3.571	83.836		1A3biii	Diesel oil	0.021	99.876	
1A1a	Peat	2.645	86.481		1A2e	Solid	0.017	99.893	
1A1a	Biomass	2.010	88.491		1A3bi	Gasoline	0.014	99.907	
2G		1.663	90.154		1A4ai	Liquid	0.010	99.917	
1A2gvii	Liquid	1.650	91.804		1A3bi	Diesel oil	0.009	99.926	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4cii	Liquid	1.047	92.851		2B10a		0.008	99.935	
2C1		1.016	93.867		2C7a		0.008	99.943	
2C7c		0.848	94.715		1A2d	Peat	0.007	99.950	
1A4bi	Biomass	0.755	95.471		5E		0.007	99.957	
1A4ci	Peat	0.669	96.139		1A2c	Biomass	0.007	99.964	
1A2d	Biomass	0.561	96.700		1A2c	Liquid	0.006	99.970	
1A4aii	Liquid	0.417	97.117		1A1b	Solid	0.005	99.976	
1A1a	Other	0.412	97.529		1A1a	Liquid	0.004	99.980	
1A2f	Solid	0.405	97.934		1A3bii	Diesel oil	0.004	99.984	
1A2gviii	Biomass	0.305	98.239		1A2gviii	Peat	0.004	99.988	
1A2e	Peat	0.259	98.498		1A2f	Liquid	0.003	99.990	
1A4bii	Liquid	0.249	98.747		1A2f	Other	0.002	99.992	
1A3dii	Liquid	0.153	98.900		1A2a	Biomass	0.001	99.994	
1A2d	Liquid	0.131	99.030		1A2f	Biomass	0.001	99.995	
1A2d	Other	0.111	99.141		5C1bv		0.001	99.996	
1A4ci	Biomass	0.106	99.247		1A4ci	Solid	0.001	99.997	
1A1a	Solid	0.099	99.347		1A2b	Liquid	0.001	99.998	
1A3c	Liquid	0.083	99.430		1A2gviii	Liquid	0.001	99.998	
1A4ciii	Liquid	0.076	99.506		1A2e	Liquid	0.000	99.999	
1A4ai	Peat	0.060	99.566		1A3biv	Gasoline	0.000	99.999	
2C2		0.060	99.625		1A4ci	Liquid	0.000	100	
1A4ai	Biomass	0.052	99.678		1A2c	Other	0.000	100	
1B1b		0.039	99.716		1A2d	Solid	0.000	100	
1A5a	Liquid	0.034	99.750		1A3bii	Gasoline	0.000	100	
2C6		0.031	99.781		1A3biv	Diesel oil	0.000	100	
1A2gviii	Other	0.028	99.810						

Ni

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	16.099	16.099	Yes	1B1b		0.183	98.427	
2C7b		10.372	26.471	Yes	1A2d	Other	0.176	98.604	
1A5a	Biomass	9.355	35.826	Yes	1A4ai	Peat	0.162	98.766	
2C1		7.436	43.262	Yes	1A4ci	Liquid	0.160	98.927	
1A1a	Peat	6.989	50.250	Yes	1A2e	Solid	0.153	99.080	
1A4ai	Liquid	5.166	55.416	Yes	1A2c	Biomass	0.142	99.221	
1A1a	Biomass	4.961	60.377	Yes	2B10a		0.111	99.333	
2C7c		4.771	65.148	Yes	1A2e	Biomass	0.105	99.438	
1A5a	Liquid	4.237	69.385	Yes	1A2gviii	Other	0.101	99.540	
1A2f	Solid	3.943	73.329	Yes	1A2b	Solid	0.090	99.629	
1A2c	Liquid	3.254	76.583	Yes	1A4aii	Liquid	0.073	99.703	
1A4ci	Biomass	2.152	78.735	Yes	1A4bi	Peat	0.062	99.765	
1A3bvi		2.080	80.814	Yes	1A1b	Solid	0.053	99.818	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A3dii	Liquid	2.009	82.823		1A4bii	Liquid	0.044	99.861	
1A4ci	Peat	1.814	84.637		1A1b	Liquid	0.040	99.901	
1A2d	Biomass	1.676	86.313		1A3bi	Gasoline	0.030	99.931	
1A1a	Liquid	1.539	87.851		1A2f	Other	0.017	99.949	
1A1a	Other	1.478	89.329		1A3c	Liquid	0.015	99.963	
1A2d	Liquid	1.452	90.781		5C1bv		0.008	99.971	
1A1a	Solid	1.391	92.172		1A2gviii	Peat	0.007	99.978	
1A4ai	Biomass	1.112	93.284		1A2a	Biomass	0.004	99.982	
1A2gviii	Biomass	0.779	94.063		1A2f	Biomass	0.003	99.985	
1A2e	Peat	0.701	94.764		1A3biii	Diesel oil	0.003	99.988	
1A2f	Liquid	0.639	95.403		1A4ci	Solid	0.003	99.991	
2C2		0.612	96.015		2C7a		0.003	99.994	
2G		0.585	96.600		1A2d	Solid	0.003	99.997	
1A4ciii	Liquid	0.367	96.967		1A3bi	Diesel oil	0.001	99.998	
1A2b	Liquid	0.329	97.295		1A3biv	Gasoline	0.001	99.999	
1A2gvii	Liquid	0.290	97.585		1A3bii	Diesel oil	0.001	99.999	
1A2e	Liquid	0.247	97.832		1A2c	Other	0.000	100	
1A2gviii	Liquid	0.228	98.060		1A3bii	Gasoline	0.000	100	
1A4cii	Liquid	0.184	98.244		1A3biv	Diesel oil	0.000	100	

Zn

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	27.636	27.636	Yes	1A4bii	Liquid	0.046	99.671	
1A5a	Biomass	16.059	43.695	Yes	1A2e	Solid	0.037	99.708	
1A3bvi		15.234	58.929	Yes	2C3		0.035	99.743	
1A1a	Biomass	8.665	67.594	Yes	1A4ciii	Liquid	0.032	99.775	
2C6		6.704	74.299	Yes	1A3bi	Gasoline	0.032	99.807	
1A1b	Liquid	4.799	79.097	Yes	1A4ai	Peat	0.028	99.835	
1A4ci	Biomass	3.694	82.791	Yes	1A5a	Liquid	0.022	99.857	
1A1a	Other	2.923	85.713		1A3biii	Diesel oil	0.020	99.878	
1A4ai	Biomass	1.909	87.622		1A3c	Liquid	0.015	99.893	
1A2gviii	Biomass	1.673	89.296		1A4ai	Liquid	0.015	99.908	
2C1		1.407	90.703		1A4bi	Peat	0.011	99.919	
1A1a	Peat	1.278	91.980		1A2c	Liquid	0.010	99.929	
1A2gviii	Other	0.986	92.966		1A3bi	Diesel oil	0.009	99.938	
2C7c		0.865	93.831		1A1b	Solid	0.007	99.945	
2C2		0.756	94.588		1A2c	Biomass	0.007	99.952	
1A2d	Biomass	0.750	95.337		1A2a	Biomass	0.006	99.958	
1A2f	Solid	0.696	96.033		1A1a	Liquid	0.006	99.964	
1A2f	Other	0.603	96.635		1A2d	Peat	0.006	99.970	
1A2f	Liquid	0.534	97.169		5C1bv		0.005	99.975	
1A1a	Solid	0.323	97.492		1A2gviii	Peat	0.005	99.980	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4ci	Peat	0.315	97.806		2C7a		0.005	99.985	
1A2gvii	Liquid	0.304	98.111		1A4ci	Solid	0.005	99.990	
2G		0.301	98.412		1A3bii	Diesel oil	0.004	99.994	
1A2d	Other	0.253	98.666		1A2gviii	Liquid	0.002	99.995	
2B10a		0.209	98.875		1A2d	Solid	0.001	99.997	
1A4cii	Liquid	0.193	99.068		1A3biv	Gasoline	0.001	99.998	
1A2e	Peat	0.123	99.191		1A2c	Other	0.001	99.998	
1A2d	Liquid	0.109	99.300		1A2e	Liquid	0.001	99.999	
1A2e	Biomass	0.089	99.390		1A4ci	Liquid	0.000	100	
1A4aii	Liquid	0.077	99.467		1A2b	Liquid	0.000	100	
1A3dii	Liquid	0.064	99.531		1A3bii	Gasoline	0.000	100	
1A2f	Biomass	0.048	99.579		1A3biv	Diesel oil	0.000	100	
1B1b		0.046	99.625						

PCDD/F

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A1a	Biomass	18.435	18.435	Yes	1B1b		0.043	99.519	
5E		14.027	32.462	Yes	1A5a	Gaseous	0.042	99.561	
1A4bi	Biomass	11.453	43.915	Yes	1A2f	Other	0.039	99.600	
1A2d	Biomass	9.759	53.674	Yes	1A1b	Gaseous	0.035	99.635	
1A1a	Other	9.489	63.163	Yes	1A2a	Gaseous	0.034	99.669	
1A5a	Biomass	6.655	69.818	Yes	1A2a	Solid	0.032	99.701	
1A1a	Peat	3.532	73.350	Yes	1A2f	Biomass	0.028	99.729	
2C1		2.760	76.111	Yes	1A2f	Solid	0.025	99.754	
2C7a		2.411	78.522	Yes	1A3biv	Diesel oil	0.023	99.777	
1A3bi	Diesel oil	2.295	80.817	Yes	1A4ai	Peat	0.021	99.797	
1A1a	Liquid	2.281	83.098		1A4ci	Liquid	0.020	99.818	
2B10a		2.196	85.294		1A2c	Gaseous	0.020	99.837	
1A3bi	Gasoline	2.053	87.348		1A4bi	Liquid	0.018	99.856	
1A2gviii	Biomass	1.541	88.889		1A2f	Liquid	0.016	99.872	
1A4ci	Biomass	1.538	90.427		1A2e	Solid	0.012	99.884	
1A3bii	Diesel oil	1.402	91.829		5C1bv		0.012	99.896	
1A2d	Other	0.997	92.826		1A2gviii	Liquid	0.011	99.907	
1A1a	Solid	0.867	93.693		1A2gviii	Gaseous	0.010	99.917	
1A4ai	Biomass	0.791	94.484		1A2b	Solid	0.009	99.925	
2C6		0.741	95.225		1A4bi	Peat	0.008	99.933	
1A2gviii	Other	0.593	95.818		1A2c	Biomass	0.008	99.941	
1A2d	Peat	0.572	96.390		1A3bii	Gasoline	0.007	99.948	
2C3		0.488	96.878		1A2f	Gaseous	0.005	99.953	
1A3biii	Diesel oil	0.456	97.333		1A2d	Solid	0.005	99.958	
1A1b	Liquid	0.313	97.646		1A2c	Other	0.005	99.963	
2A2		0.284	97.931		2G		0.005	99.968	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4ci	Peat	0.230	98.161		1A2b	Liquid	0.004	99.972	
1A2e	Biomass	0.161	98.322		1A1b	Biomass	0.004	99.977	
1A2e	Peat	0.152	98.474		2A3		0.004	99.981	
1A2d	Gaseous	0.144	98.618		1A2e	Gaseous	0.004	99.984	
1A3biv	Gasoline	0.130	98.748		1A4ai	Gaseous	0.003	99.988	
1A3dii	Liquid	0.110	98.858		1A4ci	Solid	0.003	99.991	
2D3b		0.081	98.939		1A2e	Liquid	0.003	99.994	
1A2gviii	Peat	0.072	99.011		1A2a	Biomass	0.003	99.996	
1A1a	Gaseous	0.067	99.078		1A4bi	Gaseous	0.002	99.998	
2L		0.067	99.145		1A2b	Gaseous	0.001	99.999	
1A2d	Liquid	0.063	99.209		1A2a	Liquid	0.000	99.999	
1A5a	Liquid	0.061	99.269		1A4ci	Gaseous	0.000	100	
1A4ai	Liquid	0.058	99.328		1A1b	Solid	0.000	100	
1A2c	Liquid	0.054	99.381		1A4bi	Other	0.000	100	
1A4ciii	Liquid	0.048	99.430		1A3ei	Gaseous	0.000	100	
2A1		0.046	99.476						

PAH-4

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4bi	Biomass	93.048	93.048	Yes	1A3dii	Liquid	0.009	99.923	
1A1a	Biomass	1.333	94.381		1A4ai	Biomass	0.008	99.931	
1A2gviii	Other	1.086	95.467		1A2b	Liquid	0.008	99.940	
1A1a	Other	1.045	96.512		1A3c	Liquid	0.008	99.947	
1A2d	Biomass	0.646	97.159		5C1bv		0.007	99.954	
1A3bi	Diesel oil	0.391	97.550		1A3biv	Gasoline	0.007	99.961	
1A5a	Biomass	0.383	97.933		1A4ci	Peat	0.006	99.967	
1A3biii	Diesel oil	0.377	98.310		2G		0.005	99.972	
1A3bi	Gasoline	0.152	98.461		1A2e	Liquid	0.005	99.977	
1A2gvii	Liquid	0.151	98.612		1A2e	Peat	0.004	99.981	
1A4ai	Liquid	0.150	98.763		1A4ciii	Liquid	0.004	99.985	
1A2gviii	Biomass	0.136	98.899		1A2gviii	Peat	0.003	99.988	
1A3bii	Diesel oil	0.125	99.024		1A2c	Biomass	0.003	99.991	
1A1a	Peat	0.102	99.126		1B1b		0.002	99.993	
1A4cii	Liquid	0.096	99.221		1A2f	Biomass	0.002	99.995	
1A2d	Liquid	0.088	99.309		1A1a	Solid	0.001	99.996	
1A5a	Liquid	0.074	99.383		1A3biv	Diesel oil	0.001	99.997	
1A1a	Liquid	0.073	99.456		2A1		0.001	99.997	
2C1		0.059	99.515		2C2		0.001	99.998	
2D3i		0.054	99.569		1A4ai	Peat	0.001	99.999	
1A4ci	Liquid	0.049	99.617		1A3bii	Gasoline	0.000	99.999	
1A2d	Other	0.045	99.663		1A2a	Liquid	0.000	99.999	
1A4bi	Liquid	0.043	99.706		1A2c	Other	0.000	100	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
1A4aii	Liquid	0.038	99.744		1A4bi	Peat	0.000	100	
1A1b	Liquid	0.038	99.782		1A2a	Biomass	0.000	100	
1A2gviii	Liquid	0.024	99.806		1A2f	Solid	0.000	100	
1A4bii	Liquid	0.023	99.828		1A2e	Solid	0.000	100	
1A4ci	Biomass	0.017	99.846		1A4bi	Other	0.000	100	
1A2f	Other	0.017	99.862		1A2b	Solid	0.000	100	
1A2c	Liquid	0.015	99.878		1A2d	Solid	0.000	100	
1A2f	Liquid	0.015	99.892		1A4ci	Solid	0.000	100	
1A2d	Peat	0.012	99.904		1A2a	Solid	0.000	100	
1A2e	Biomass	0.009	99.914		1A1b	Solid	0.000	100	

HCB

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
2B10a		54.187	54.187	Yes	1A3biv	Gasoline	0.013	99.939	
2C7a		37.614	91.801	Yes	2D3i		0.010	99.949	
1A1a	Biomass	2.906	94.707		1A1a	Other	0.010	99.958	
1A4bi	Biomass	1.453	96.160		1A4ci	Solid	0.008	99.966	
1A2d	Biomass	0.696	96.856		1A3bi	Gaseous	0.005	99.971	
1A2gviii		0.522	97.378		1A3biii	Gaseous	0.004	99.975	
1A3biii	Diesel oil	0.499	97.877		1A5a	Liquid	0.004	99.980	
1A3bi	Gasoline	0.426	98.303		1A2gviii	Other	0.004	99.984	
1A2gviii	Biomass	0.280	98.584		1A2f	Biomass	0.004	99.987	
1A3bi	Diesel oil	0.222	98.805		1A2f	Solid	0.003	99.990	
2C3		0.208	99.013		1A2a	Solid	0.002	99.992	
1A4ci	Biomass	0.191	99.204		1A2d	Other	0.002	99.994	
3Df		0.176	99.380		1A3bii	Gasoline	0.001	99.995	
1A5a	Biomass	0.169	99.549		1A2e	Solid	0.001	99.996	
1A4ai	Biomass	0.100	99.649		1A1a	Solid	0.001	99.997	
1A3bii	Diesel oil	0.094	99.743		1A2c	Biomass	0.001	99.998	
2C1		0.078	99.821		1A2b	Solid	0.001	99.998	
5C1bv		0.036	99.857		1A3bii	Gaseous	0.000	99.999	
1A3dii	Liquid	0.033	99.890		1A3biv	Diesel oil	0.000	99.999	
1A2e	Biomass	0.020	99.910		1A2d	Solid	0.000	100	
1A4ciii	Liquid	0.016	99.926		1A2a	Biomass	0.000	100	

PCB

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
2C1		59.344	59.344	Yes	1A4bi	Liquid	0.002	99.995	
1B1b		20.401	79.745	Yes	1A4ai	Biomass	0.001	99.997	

NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source	NFR Code	Fuel	Contribution percentage	Cumulative percentage	Key source
2A1		14.884	94.629	Yes	1A4ci	Peat	0.001	99.997	
1A1a	Biomass	2.308	96.937		1A1a	Solid	0.000	99.998	
1A2f	Solid	0.845	97.782		1A4ci	Liquid	0.000	99.998	
2C3		0.615	98.397		2A2		0.000	99.999	
1A2a	Solid	0.571	98.968		1A3bi	Diesel oil	0.000	99.999	
1A2e	Solid	0.314	99.282		1A2e	Biomass	0.000	99.999	
1A2b	Solid	0.232	99.515		1A3bi	Gasoline	0.000	99.999	
1A2d	Solid	0.125	99.640		1A3bii	Diesel oil	0.000	100	
1A2gviii		0.115	99.755		1A4ci	Solid	0.000	100	
5C1bv		0.112	99.867		1A2gviii	Other	0.000	100	
2C7c		0.036	99.903		1A3biii	Diesel oil	0.000	100	
1A3dii	Liquid	0.030	99.934		1A2f	Biomass	0.000	100	
1A4bi	Biomass	0.020	99.953		1A4ai	Peat	0.000	100	
1A2d	Biomass	0.009	99.963		1A2d	Other	0.000	100	
1A4ciii	Liquid	0.009	99.971		1A4bi	Peat	0.000	100	
1A1a	Other	0.008	99.979		1A3biv	Gasoline	0.000	100	
1A4ai	Liquid	0.006	99.985		1A2c	Biomass	0.000	100	
1A2gviii	Biomass	0.004	99.989		1A2a	Biomass	0.000	100	
1A4ci	Biomass	0.003	99.992		1A3biv	Diesel oil	0.000	100	
2C7a		0.002	99.994		1A3bii	Gasoline	0.000	100	

Trend analysis

The key category assessment by trend for the 2025 submission is presented below.

NO_x

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	62.636	306.747	1.399	90.300	Gg	0.056	17.598	17.598	Yes
1A3biii	Diesel oil	58.866	306.747	4.997	90.300	Gg	0.040	12.736	30.334	Yes
1A1a	Solid	36.204	306.747	1.530	90.300	Gg	0.030	9.426	39.760	Yes
1A2d	Biomass	8.656	306.747	10.587	90.300	Gg	0.026	8.302	48.062	Yes
1A1a	Biomass	1.017	306.747	7.772	90.300	Gg	0.024	7.717	55.779	Yes
1A3bi	Diesel oil	6.783	306.747	6.068	90.300	Gg	0.013	4.205	59.983	Yes
1A3bii	Diesel oil	4.439	306.747	4.873	90.300	Gg	0.012	3.683	63.666	Yes
3Da1		9.143	306.747	5.640	90.300	Gg	0.010	3.045	66.711	Yes
1A4bi	Biomass	3.303	306.747	3.775	90.300	Gg	0.009	2.894	69.605	Yes
1A5a	Biomass	0.032	306.747	2.742	90.300	Gg	0.009	2.822	72.427	Yes

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A1a	Gaseous	8.859	306.747	0.448	90.300	Gg	0.007	2.230	74.657	Yes
1A4cii	Liquid	12.825	306.747	1.744	90.300	Gg	0.007	2.098	76.755	Yes
1A3dii	Liquid	9.13	306.747	4.423	90.300	Gg	0.006	1.792	78.547	Yes
1A1a	Other	0.006	306.747	1.512	90.300	Gg	0.005	1.559	80.106	Yes
3Da2a		3.142	306.747	2.410	90.300	Gg	0.005	1.534	81.640	
1A2a	Solid	2.398	306.747	1.932	90.300	Gg	0.004	1.267	82.907	
1A5a	Liquid	2.178	306.747	1.636	90.300	Gg	0.003	1.028	83.935	
1A2gviii	Biomass	0.862	306.747	1.108	90.300	Gg	0.003	0.882	84.817	
1A2f	Solid	3.724	306.747	0.263	90.300	Gg	0.003	0.861	85.678	
1A2a	Gaseous	0.203	306.747	0.871	90.300	Gg	0.003	0.837	86.515	
1A4bii	Liquid	0.396	306.747	0.900	90.300	Gg	0.003	0.809	87.324	
1A2d	Solid	2.455	306.747	0.010	90.300	Gg	0.002	0.736	88.060	
1A1b	Liquid	2.045	306.747	1.274	90.300	Gg	0.002	0.694	88.754	
1A4bi	Liquid	3.114	306.747	0.249	90.300	Gg	0.002	0.689	89.443	
1A2f	Liquid	0.665	306.747	0.844	90.300	Gg	0.002	0.670	90.113	
1A4aii	Liquid	5.216	306.747	0.908	90.300	Gg	0.002	0.648	90.761	
1A2c	Liquid	1.137	306.747	0.949	90.300	Gg	0.002	0.635	91.396	
1A1a	Peat	9.791	306.747	2.280	90.300	Gg	0.002	0.622	92.018	
1A4ciii	Liquid	3.58	306.747	1.652	90.300	Gg	0.002	0.618	92.636	
1A3ai(i)	Liquid	0.251	306.747	0.659	90.300	Gg	0.002	0.604	93.240	
1A2gviii	Other	0.148	306.747	0.620	90.300	Gg	0.002	0.596	93.836	
1A2d	Gaseous	3.395	306.747	0.481	90.300	Gg	0.002	0.535	94.371	
1A2gvii	Liquid	12.65	306.747	4.166	90.300	Gg	0.001	0.456	94.827	
1A3bii	Gasoline	1.532	306.747	0.039	90.300	Gg	0.001	0.425	95.252	
1A4ci	Biomass	0.52	306.747	0.512	90.300	Gg	0.001	0.370	95.622	
1A5a	Gaseous	0.116	306.747	0.366	90.300	Gg	0.001	0.343	95.966	
1A1a	Liquid	3.798	306.747	0.791	90.300	Gg	0.001	0.338	96.303	
1A2d	Other	0.044	306.747	0.335	90.300	Gg	0.001	0.332	96.636	
3Da2c		0.103	306.747	0.251	90.300	Gg	0.001	0.228	96.863	
1A4ai	Biomass	0.156	306.747	0.261	90.300	Gg	0.001	0.222	97.085	
1A2f	Other	0.58	306.747	0.356	90.300	Gg	0.001	0.191	97.277	
3Da3		0.785	306.747	0.412	90.300	Gg	0.001	0.186	97.463	
1A2d	Peat	1.476	306.747	0.262	90.300	Gg	0.001	0.178	97.642	
1A4ai	Liquid	2.314	306.747	0.844	90.300	Gg	0.001	0.168	97.810	
1A2e	Liquid	0.662	306.747	0.045	90.300	Gg	0.000	0.155	97.965	
3B1b		0.157	306.747	0.193	90.300	Gg	0.000	0.151	98.117	
1A2gviii	Gaseous	0.075	306.747	0.150	90.300	Gg	0.000	0.132	98.249	
1A2d	Liquid	2.136	306.747	0.740	90.300	Gg	0.000	0.115	98.364	
1A2b	Solid	0.422	306.747	0.018	90.300	Gg	0.000	0.110	98.474	
1A4ci	Peat	0.04	306.747	0.114	90.300	Gg	0.000	0.106	98.580	
1A1b	Gaseous	1.269	306.747	0.275	90.300	Gg	0.000	0.102	98.682	
1A2e	Peat	0.165	306.747	0.146	90.300	Gg	0.000	0.100	98.782	
1A3biv	Gasoline	0.065	306.747	0.113	90.300	Gg	0.000	0.097	98.879	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2B10a		0.061	306.747	0.108	90.300	Gg	0.000	0.093	98.972	
3Da2b		0.063	306.747	0.108	90.300	Gg	0.000	0.092	99.064	
3B4gii		0.027	306.747	0.093	90.300	Gg	0.000	0.088	99.152	
1A2e	Biomass	0.033	306.747	0.094	90.300	Gg	0.000	0.087	99.239	
1A2a	Liquid	0.466	306.747	0.062	90.300	Gg	0.000	0.078	99.317	
1A2gviii	Liquid	1.266	306.747	0.314	90.300	Gg	0.000	0.061	99.378	
1A4ci	Liquid	0.744	306.747	0.277	90.300	Gg	0.000	0.060	99.438	
1A2gviii	Peat	0.046	306.747	0.056	90.300	Gg	0.000	0.044	99.482	
1A3biii	Gaseous		306.747	0.041	90.300	Gg	0.000	0.043	99.525	
1A2c	Gaseous	0.181	306.747	0.094	90.300	Gg	0.000	0.042	99.567	
1A2e	Solid	0.247	306.747	0.033	90.300	Gg	0.000	0.041	99.608	
1A2c	Other	0.152	306.747	0.006	90.300	Gg	0.000	0.040	99.649	
2B2		0.744	306.747	0.181	90.300	Gg	0.000	0.039	99.687	
1A1b	Biomass		306.747	0.032	90.300	Gg	0.000	0.033	99.721	
1A3aii(i)	Liquid	0.311	306.747	0.121	90.300	Gg	0.000	0.031	99.751	
3B4gi		0.052	306.747	0.043	90.300	Gg	0.000	0.028	99.780	
1A3biv	Diesel oil		306.747	0.022	90.300	Gg	0.000	0.023	99.802	
1A4ai	Gaseous	0.043	306.747	0.029	90.300	Gg	0.000	0.017	99.819	
3B3		0.074	306.747	0.006	90.300	Gg	0.000	0.016	99.836	
1A4bi	Peat	0.065	306.747	0.004	90.300	Gg	0.000	0.016	99.851	
3B4e		0.011	306.747	0.018	90.300	Gg	0.000	0.016	99.867	
1A4ci	Gaseous	0.056	306.747	0.003	90.300	Gg	0.000	0.014	99.881	
3B1a		0.166	306.747	0.036	90.300	Gg	0.000	0.014	99.894	
1A2b	Liquid	0.24	306.747	0.083	90.300	Gg	0.000	0.012	99.907	
1A2f	Biomass	0	306.747	0.011	90.300	Gg	0.000	0.012	99.918	
1A2f	Gaseous	0.261	306.747	0.086	90.300	Gg	0.000	0.009	99.928	
1A4bi	Gaseous	0.03	306.747	0.018	90.300	Gg	0.000	0.009	99.937	
3B4giii		0.001	306.747	0.009	90.300	Gg	0.000	0.009	99.946	
3B4h		0.042	306.747	0.021	90.300	Gg	0.000	0.009	99.954	
1A4ai	Peat	0.015	306.747	0.013	90.300	Gg	0.000	0.008	99.963	
3B2		0.006	306.747	0.008	90.300	Gg	0.000	0.006	99.969	
1A2e	Gaseous	0.088	306.747	0.031	90.300	Gg	0.000	0.005	99.974	
1A4ci	Solid	0.024	306.747	0.011	90.300	Gg	0.000	0.004	99.979	
1A3bi	Gaseous		306.747	0.004	90.300	Gg	0.000	0.004	99.982	
1A2a	Biomass		306.747	0.003	90.300	Gg	0.000	0.004	99.986	
2G		0.016	306.747	0.008	90.300	Gg	0.000	0.003	99.989	
1A3c	Liquid	4.212	306.747	1.237	90.300	Gg	0.000	0.003	99.992	
1A3ei	Gaseous	0.009	306.747	0.000	90.300	Gg	0.000	0.003	99.994	
1A2b	Gaseous		306.747	0.002	90.300	Gg	0.000	0.002	99.996	
3B4giv		0.007	306.747	0.004	90.300	Gg	0.000	0.002	99.998	
1A4bi	Other	0.003	306.747	0.000	90.300	Gg	0.000	0.001	99.999	
1A3bii	Gaseous		306.747	0.001	90.300	Gg	0.000	0.001	99.999	
3B4d		0	306.747	0.000	90.300	Gg	0.000	0.000	100	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2c	Biomass	0.089	306.747	0.026	90.300	Gg	0.000	0.000	100	
1A1b	Solid	0.005	306.747	0.001	90.300	Gg	0.000	0.000	100	

NMVOC

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	49.364	233.362	0.765	72.510	Gg	0.062	21.414	21.414	Yes
1A4bi	Biomass	17.72	233.362	18.338	72.510	Gg	0.055	18.856	40.269	Yes
2D3a		3.065	233.362	6.633	72.510	Gg	0.024	8.347	48.616	Yes
2D3d		27.5	233.362	4.284	72.510	Gg	0.018	6.260	54.877	Yes
3B1a		6.851	233.362	5.883	72.510	Gg	0.016	5.516	60.393	Yes
1A3bv		13.655	233.362	1.060	72.510	Gg	0.014	4.677	65.070	Yes
3B1b		4.004	233.362	3.925	72.510	Gg	0.011	3.939	69.010	Yes
2D3h		8.8	233.362	0.264	72.510	Gg	0.011	3.631	72.640	Yes
1A3biii	Diesel oil	7.843	233.362	0.133	72.510	Gg	0.010	3.385	76.025	Yes
2D3c		6.26	233.362	0.039	72.510	Gg	0.008	2.801	78.826	Yes
1A4aii	Liquid	6.267	233.362	0.394	72.510	Gg	0.007	2.282	81.108	Yes
1A1a	Biomass	0.109	233.362	1.353	72.510	Gg	0.006	1.938	83.046	
3Da2a		3.886	233.362	2.264	72.510	Gg	0.005	1.552	84.598	
2H2		2.523	233.362	1.812	72.510	Gg	0.004	1.511	86.109	
1A4cii	Liquid	6.642	233.362	1.082	72.510	Gg	0.004	1.443	87.552	
2I		1.07	233.362	1.049	72.510	Gg	0.003	1.053	88.605	
3B4gii		0.259	233.362	0.789	72.510	Gg	0.003	1.042	89.646	
2D3i		2.085	233.362	1.289	72.510	Gg	0.003	0.942	90.588	
3De		1.062	233.362	0.881	72.510	Gg	0.002	0.809	91.397	
1A3bii	Gasoline	1.669	233.362	0.012	72.510	Gg	0.002	0.744	92.141	
1A3bi	Diesel oil	1.332	233.362	0.060	72.510	Gg	0.002	0.519	92.660	
2B10a		7.836	233.362	2.129	72.510	Gg	0.001	0.450	93.110	
1B2aiv		6.6	233.362	1.762	72.510	Gg	0.001	0.424	93.534	
1A5a	Biomass	0.014	233.362	0.274	72.510	Gg	0.001	0.397	93.931	
1A1a	Other	0.001	233.362	0.256	72.510	Gg	0.001	0.376	94.307	
2D3e		2.638	233.362	0.581	72.510	Gg	0.001	0.350	94.657	
1A3dii	Liquid	9.646	233.362	2.762	72.510	Gg	0.001	0.346	95.003	
1B2av		7.411	233.362	2.523	72.510	Gg	0.001	0.323	95.327	
1A2d	Biomass	0.43	233.362	0.339	72.510	Gg	0.001	0.303	95.629	
1A3biv	Gasoline	2.767	233.362	0.656	72.510	Gg	0.001	0.299	95.928	
1A4ci	Peat	0.08	233.362	0.224	72.510	Gg	0.001	0.292	96.220	
3B4gi		0.219	233.362	0.260	72.510	Gg	0.001	0.282	96.502	
3B4e		0.161	233.362	0.232	72.510	Gg	0.001	0.268	96.770	
1A2gvii	Liquid	2.366	233.362	0.907	72.510	Gg	0.001	0.252	97.022	
3B4h		1.028	233.362	0.453	72.510	Gg	0.001	0.196	97.219	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2H1		2.966	233.362	1.044	72.510	Gg	0.001	0.180	97.399	
1A4bii	Liquid	6.597	233.362	1.927	72.510	Gg	0.001	0.180	97.580	
3B3		0.423	233.362	0.241	72.510	Gg	0.000	0.162	97.741	
2D3g		3.956	233.362	1.336	72.510	Gg	0.000	0.157	97.898	
2D3b		0.9	233.362	0.174	72.510	Gg	0.000	0.155	98.053	
1A3bii	Diesel oil	0.796	233.362	0.152	72.510	Gg	0.000	0.140	98.194	
3B2		0.11	233.362	0.127	72.510	Gg	0.000	0.136	98.330	
1A2gviii	Biomass	0.199	233.362	0.143	72.510	Gg	0.000	0.119	98.449	
1A1a	Peat	0.199	233.362	0.137	72.510	Gg	0.000	0.110	98.559	
1A5a	Liquid	0.14	233.362	0.118	72.510	Gg	0.000	0.109	98.668	
2C1		0.796	233.362	0.183	72.510	Gg	0.000	0.094	98.762	
1B2b		0.229	233.362	0.126	72.510	Gg	0.000	0.081	98.843	
1B1b		0.037	233.362	0.062	72.510	Gg	0.000	0.075	98.917	
1A2d	Liquid	0.174	233.362	0.006	72.510	Gg	0.000	0.070	98.988	
1A1b	Liquid	0.005	233.362	0.049	72.510	Gg	0.000	0.069	99.057	
1A4bi	Liquid	0.195	233.362	0.016	72.510	Gg	0.000	0.066	99.122	
1A3ai(i)	Liquid	0.056	233.362	0.058	72.510	Gg	0.000	0.060	99.183	
1A4ciii	Liquid	0.144	233.362	0.078	72.510	Gg	0.000	0.050	99.232	
1A5a	Gaseous	0.012	233.362	0.037	72.510	Gg	0.000	0.049	99.281	
1A4bi	Peat	0.13	233.362	0.008	72.510	Gg	0.000	0.048	99.329	
1A2a	Gaseous	0.111	233.362	0.004	72.510	Gg	0.000	0.045	99.374	
1A2gviii	Other	0.011	233.362	0.033	72.510	Gg	0.000	0.044	99.418	
3B4giii		0.006	233.362	0.030	72.510	Gg	0.000	0.041	99.459	
1A3biv	Diesel oil		233.362	0.021	72.510	Gg	0.000	0.031	99.490	
1A2d	Other	0	233.362	0.021	72.510	Gg	0.000	0.031	99.521	
1A2gviii	Gaseous	0.002	233.362	0.019	72.510	Gg	0.000	0.028	99.548	
2L		0.013	233.362	0.022	72.510	Gg	0.000	0.027	99.575	
1A1a	Solid	0.117	233.362	0.055	72.510	Gg	0.000	0.027	99.602	
1A4ci	Biomass	0.02	233.362	0.024	72.510	Gg	0.000	0.026	99.627	
1A2d	Gaseous	0.077	233.362	0.008	72.510	Gg	0.000	0.023	99.651	
3Da3		0.099	233.362	0.046	72.510	Gg	0.000	0.022	99.673	
2C7b		0.01	233.362	0.018	72.510	Gg	0.000	0.022	99.695	
1A4ai	Liquid	0.125	233.362	0.052	72.510	Gg	0.000	0.019	99.714	
1A4ai	Peat	0.016	233.362	0.017	72.510	Gg	0.000	0.017	99.732	
1A2d	Solid	0.038	233.362	0.000	72.510	Gg	0.000	0.017	99.748	
1A1b	Gaseous	0.007	233.362	0.013	72.510	Gg	0.000	0.016	99.764	
2A1		0.054	233.362	0.027	72.510	Gg	0.000	0.015	99.779	
1A1a	Gaseous	0.042	233.362	0.023	72.510	Gg	0.000	0.015	99.794	
5A		0.234	233.362	0.064	72.510	Gg	0.000	0.013	99.807	
2B10b		0.134	233.362	0.033	72.510	Gg	0.000	0.012	99.819	
1A2c	Gaseous	0.002	233.362	0.008	72.510	Gg	0.000	0.012	99.831	
1A2e	Biomass	0.007	233.362	0.010	72.510	Gg	0.000	0.011	99.842	
1A4ai	Biomass	0.007	233.362	0.010	72.510	Gg	0.000	0.011	99.853	
3B4giv		0.033	233.362	0.018	72.510	Gg	0.000	0.011	99.864	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2A3		0.001	233.362	0.008	72.510	Gg	0.000	0.011	99.875	
5D1		0.003	233.362	0.008	72.510	Gg	0.000	0.011	99.885	
1A2f	Other		233.362	0.007	72.510	Gg	0.000	0.010	99.895	
5D2		0.022	233.362	0.013	72.510	Gg	0.000	0.010	99.905	
2G		0.043	233.362	0.020	72.510	Gg	0.000	0.010	99.915	
1A1a	Liquid	0.027	233.362	0.014	72.510	Gg	0.000	0.008	99.923	
2C3		0.022	233.362	0.002	72.510	Gg	0.000	0.007	99.930	
1A2a	Solid	0.017	233.362	0.010	72.510	Gg	0.000	0.007	99.938	
1A2f	Biomass	0	233.362	0.004	72.510	Gg	0.000	0.006	99.944	
1A4ci	Liquid	0.044	233.362	0.018	72.510	Gg	0.000	0.006	99.950	
1A3biii	Gaseous		233.362	0.003	72.510	Gg	0.000	0.005	99.955	
3B4d		0.004	233.362	0.004	72.510	Gg	0.000	0.005	99.959	
1A3aii(i)	Liquid	0.056	233.362	0.014	72.510	Gg	0.000	0.004	99.964	
2C7c		0.025	233.362	0.005	72.510	Gg	0.000	0.004	99.967	
1A2gviii	Liquid	0.017	233.362	0.008	72.510	Gg	0.000	0.004	99.971	
1A3c	Liquid	0.234	233.362	0.071	72.510	Gg	0.000	0.003	99.974	
1A4ai	Gaseous	0.003	233.362	0.003	72.510	Gg	0.000	0.003	99.976	
1A3bi	Gaseous		233.362	0.001	72.510	Gg	0.000	0.002	99.978	
1A2gviii	Peat	0.002	233.362	0.002	72.510	Gg	0.000	0.002	99.980	
1A2f	Solid	0.009	233.362	0.002	72.510	Gg	0.000	0.002	99.982	
1A2e	Solid	0.007	233.362	0.001	72.510	Gg	0.000	0.002	99.984	
2C2			233.362	0.001	72.510	Gg	0.000	0.002	99.985	
1A2e	Liquid	0.005	233.362	0.001	72.510	Gg	0.000	0.002	99.987	
1A2c	Other	0.003	233.362	0.000	72.510	Gg	0.000	0.001	99.988	
1A2a	Liquid	0.003	233.362	0.000	72.510	Gg	0.000	0.001	99.989	
1A4bi	Gaseous	0.003	233.362	0.002	72.510	Gg	0.000	0.001	99.991	
1A1b	Biomass		233.362	0.001	72.510	Gg	0.000	0.001	99.992	
1A2d	Peat	0.018	233.362	0.006	72.510	Gg	0.000	0.001	99.993	
1A2c	Liquid	0.004	233.362	0.002	72.510	Gg	0.000	0.001	99.994	
1A2e	Peat	0.012	233.362	0.004	72.510	Gg	0.000	0.001	99.995	
2C7a			233.362	0.001	72.510	Gg	0.000	0.001	99.995	
1A2a	Biomass		233.362	0.001	72.510	Gg	0.000	0.001	99.996	
1A2f	Liquid	0.005	233.362	0.002	72.510	Gg	0.000	0.001	99.997	
1A2b	Liquid	0.001	233.362	0.001	72.510	Gg	0.000	0.001	99.998	
1A2f	Gaseous	0.003	233.362	0.001	72.510	Gg	0.000	0.001	99.998	
1A2e	Gaseous	0.001	233.362	0.001	72.510	Gg	0.000	0.000	99.999	
1A4ci	Gaseous	0.002	233.362	0.000	72.510	Gg	0.000	0.000	99.999	
1A3bii	Gaseous		233.362	0.000	72.510	Gg	0.000	0.000	99.999	
1A4ci	Solid	0.001	233.362	0.000	72.510	Gg	0.000	0.000	100	
1A2b	Gaseous		233.362	0.000	72.510	Gg	0.000	0.000	100	
1A2b	Solid	0	233.362	0.000	72.510	Gg	0.000	0.000	100	
1A4bi	Other	0	233.362	0.000	72.510	Gg	0.000	0.000	100	
1A2c	Biomass	0.002	233.362	0.001	72.510	Gg	0.000	0.000	100	
1A3ei	Gaseous	0	233.362	0.000	72.510	Gg	0.000	0.000	100	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A1b	Solid		233.362	0.000	72.510	Gg	0.000	0.000	100	

SOx

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A1b	Gaseous	0.001	249.475	2.322	20.536	Gg	0.009	12.421	12.421	Yes
1A1b	Liquid	21.319	249.475	0.208	20.536	Gg	0.006	8.272	20.693	Yes
2H1		23.466	249.475	0.552	20.536	Gg	0.006	7.380	28.073	Yes
1A2d	Liquid	19.44	249.475	0.401	20.536	Gg	0.005	6.412	34.485	Yes
1A1a	Liquid	16.678	249.475	0.276	20.536	Gg	0.004	5.866	40.351	Yes
1A1a	Peat	8.877	249.475	1.560	20.536	Gg	0.003	4.434	44.785	Yes
1A2b	Solid	4.034	249.475	1.128	20.536	Gg	0.003	4.256	49.041	Yes
1A1a	Solid	50.545	249.475	3.404	20.536	Gg	0.003	4.049	53.090	Yes
1B1b		0.795	249.475	0.800	20.536	Gg	0.003	3.929	57.019	Yes
2C1		2.867	249.475	0.947	20.536	Gg	0.003	3.803	60.822	Yes
1A1a	Biomass	0.587	249.475	0.754	20.536	Gg	0.003	3.775	64.597	Yes
1A5a	Biomass	0.008	249.475	0.548	20.536	Gg	0.002	2.929	67.527	Yes
1A2b	Liquid	4.045	249.475	0.843	20.536	Gg	0.002	2.729	70.256	Yes
1A2d	Solid	6.141	249.475	0.008	20.536	Gg	0.002	2.661	72.917	Yes
1A2d	Biomass	6.427	249.475	1.009	20.536	Gg	0.002	2.570	75.486	Yes
1A2d	Peat	5.876	249.475	0.088	20.536	Gg	0.002	2.117	77.604	Yes
2B10a		13.894	249.475	0.804	20.536	Gg	0.001	1.817	79.421	Yes
1A2gviii	Liquid	4.935	249.475	0.083	20.536	Gg	0.001	1.730	81.150	Yes
1A2gviii	Biomass	0.349	249.475	0.280	20.536	Gg	0.001	1.342	82.492	
1A2e	Liquid	3.245	249.475	0.037	20.536	Gg	0.001	1.231	83.722	
1A4bi	Liquid	4.226	249.475	0.129	20.536	Gg	0.001	1.172	84.894	
1A4bi	Biomass	0.206	249.475	0.236	20.536	Gg	0.001	1.171	86.065	
1A4ai	Liquid	10.103	249.475	1.047	20.536	Gg	0.001	1.151	87.217	
1A3biii	Diesel oil	2.738	249.475	0.014	20.536	Gg	0.001	1.132	88.349	
1A4ci	Peat	0.072	249.475	0.203	20.536	Gg	0.001	1.057	89.406	
1A2a	Liquid	1.958	249.475	0.005	20.536	Gg	0.001	0.837	90.242	
1A5a	Liquid	5.958	249.475	0.340	20.536	Gg	0.001	0.805	91.047	
1A1a	Other	0.027	249.475	0.118	20.536	Gg	0.000	0.621	91.668	
2C7a		0	249.475	0.111	20.536	Gg	0.000	0.593	92.260	
1A4ci	Liquid	3.231	249.475	0.163	20.536	Gg	0.000	0.553	92.813	
1A2c	Liquid	4.948	249.475	0.505	20.536	Gg	0.000	0.521	93.334	
1A3dii	Liquid	1.65	249.475	0.042	20.536	Gg	0.000	0.503	93.837	
1A5a	Gaseous	0	249.475	0.093	20.536	Gg	0.000	0.496	94.333	
1A2e	Peat	0.23	249.475	0.109	20.536	Gg	0.000	0.479	94.812	
1A2f	Solid	1.111	249.475	0.177	20.536	Gg	0.000	0.460	95.272	
1A4cii	Liquid	0.986	249.475	0.003	20.536	Gg	0.000	0.419	95.691	
1A2gvii	Liquid	1.003	249.475	0.004	20.536	Gg	0.000	0.418	96.110	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Diesel oil	0.909	249.475	0.006	20.536	Gg	0.000	0.368	96.478	
1A2a	Solid	7.266	249.475	0.530	20.536	Gg	0.000	0.363	96.841	
1A3bii	Diesel oil	0.705	249.475	0.003	20.536	Gg	0.000	0.297	97.138	
1A3bi	Gasoline	0.86	249.475	0.016	20.536	Gg	0.000	0.295	97.433	
1A1b	Solid	0.467	249.475	0.000	20.536	Gg	0.000	0.205	97.638	
1A3ai(i)	Liquid	0.021	249.475	0.040	20.536	Gg	0.000	0.203	97.841	
1A3c	Liquid	0.438	249.475	0.000	20.536	Gg	0.000	0.191	98.032	
1A4ci	Solid	0.093	249.475	0.041	20.536	Gg	0.000	0.180	98.213	
1A4ci	Biomass	0.033	249.475	0.036	20.536	Gg	0.000	0.176	98.389	
1A2f	Liquid	1.827	249.475	0.183	20.536	Gg	0.000	0.175	98.564	
1A2e	Biomass	0.031	249.475	0.035	20.536	Gg	0.000	0.174	98.738	
1A4aii	Liquid	0.409	249.475	0.001	20.536	Gg	0.000	0.174	98.913	
2C7b		0.004	249.475	0.028	20.536	Gg	0.000	0.149	99.062	
1A4ai	Peat	0.016	249.475	0.018	20.536	Gg	0.000	0.091	99.153	
1A2e	Solid	0.783	249.475	0.081	20.536	Gg	0.000	0.090	99.243	
1A2d	Gaseous	0.201	249.475	0.000	20.536	Gg	0.000	0.087	99.330	
1A4ciii	Liquid	0.195	249.475	0.000	20.536	Gg	0.000	0.084	99.414	
1A4ai	Biomass	0.01	249.475	0.016	20.536	Gg	0.000	0.083	99.497	
1A2gviii	Peat	0.019	249.475	0.017	20.536	Gg	0.000	0.082	99.579	
1A2c	Biomass	0.24	249.475	0.005	20.536	Gg	0.000	0.080	99.659	
1A2d	Other	0.39	249.475	0.044	20.536	Gg	0.000	0.064	99.723	
2D3i		0.089	249.475	0.000	20.536	Gg	0.000	0.037	99.760	
1A3aii(i)	Liquid	0.021	249.475	0.008	20.536	Gg	0.000	0.035	99.796	
1A2gviii	Gaseous	0	249.475	0.007	20.536	Gg	0.000	0.035	99.831	
1A2f	Other	0.033	249.475	0.009	20.536	Gg	0.000	0.034	99.865	
1A2gviii	Other	0.307	249.475	0.029	20.536	Gg	0.000	0.022	99.886	
2G		0.001	249.475	0.004	20.536	Gg	0.000	0.021	99.907	
2L			249.475	0.004	20.536	Gg	0.000	0.019	99.926	
1A4bi	Peat	0.117	249.475	0.007	20.536	Gg	0.000	0.014	99.940	
1A3bii	Gasoline	0.032	249.475	0.000	20.536	Gg	0.000	0.014	99.954	
1A4bii	Liquid	0.032	249.475	0.001	20.536	Gg	0.000	0.010	99.964	
1A2f	Biomass	0	249.475	0.002	20.536	Gg	0.000	0.010	99.974	
1A1a	Gaseous	0.002	249.475	0.002	20.536	Gg	0.000	0.007	99.981	
2C2			249.475	0.001	20.536	Gg	0.000	0.007	99.988	
1A2a	Gaseous	0	249.475	0.001	20.536	Gg	0.000	0.003	99.992	
1A2c	Other	0.044	249.475	0.004	20.536	Gg	0.000	0.003	99.995	
1A2c	Gaseous	0	249.475	0.000	20.536	Gg	0.000	0.002	99.996	
1A2a	Biomass		249.475	0.000	20.536	Gg	0.000	0.001	99.998	
2D3g		0.002	249.475	0.000	20.536	Gg	0.000	0.001	99.998	
1A3biv	Gasoline	0.007	249.475	0.000	20.536	Gg	0.000	0.000	99.999	
1A1b	Biomass		249.475	0.000	20.536	Gg	0.000	0.000	99.999	
1A4bi	Other	0	249.475	0.000	20.536	Gg	0.000	0.000	99.999	
1A4ai	Gaseous	0	249.475	0.000	20.536	Gg	0.000	0.000	99.999	
1A3bi	Gaseous		249.475	0.000	20.536	Gg	0.000	0.000	100	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3biii	Gaseous		249.475	0.000	20.536	Gg	0.000	0.000	100	
2C7c		0.001	249.475	0.000	20.536	Gg	0.000	0.000	100	
1A4bi	Gaseous	0	249.475	0.000	20.536	Gg	0.000	0.000	100	
1A3biv	Diesel oil		249.475	0.000	20.536	Gg	0.000	0.000	100	
1A2e	Gaseous	0	249.475	0.000	20.536	Gg	0.000	0.000	100	
1A2f	Gaseous	0.064	249.475	0.005	20.536	Gg	0.000	0.000	100	
1A2b	Gaseous		249.475	0.000	20.536	Gg	0.000	0.000	100	
1A3bii	Gaseous		249.475	0.000	20.536	Gg	0.000	0.000	100	
1A4ci	Gaseous	0	249.475	0.000	20.536	Gg	0.000	0.000	100	
1A3ei	Gaseous	0	249.475	0.000	20.536	Gg	0.000	0.000	100	

NH3

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
3B3		4.182	41.346	1.646	30.160	Gg	0.034	12.960	12.960	Yes
3Da2a		11.254	41.346	6.897	30.160	Gg	0.032	12.112	25.073	Yes
3B1b		5.208	41.346	4.989	30.160	Gg	0.029	10.974	36.047	Yes
3B1a		5.709	41.346	5.331	30.160	Gg	0.028	10.767	46.814	Yes
3Da1		6.311	41.346	3.443	30.160	Gg	0.028	10.702	57.516	Yes
3B4gii		0.204	41.346	0.621	30.160	Gg	0.011	4.354	61.870	Yes
3B4h		1.873	41.346	0.931	30.160	Gg	0.011	4.014	65.884	Yes
1A4bi	Biomass	0.907	41.346	1.010	30.160	Gg	0.008	3.212	69.096	Yes
1A3bi	Gasoline	0.227	41.346	0.503	30.160	Gg	0.008	3.118	72.214	Yes
6A		0.38	41.346	0.603	30.160	Gg	0.008	3.007	75.221	Yes
3Da2c		0.166	41.346	0.402	30.160	Gg	0.007	2.592	77.812	Yes
3Da3		1.728	41.346	0.982	30.160	Gg	0.007	2.572	80.385	Yes
3Da4		0.2	41.346	0.404	30.160	Gg	0.006	2.383	82.768	
2H1		0.56	41.346	0.155	30.160	Gg	0.006	2.343	85.111	
3B4e		0.254	41.346	0.410	30.160	Gg	0.005	2.073	87.184	
2B10a		0.582	41.346	0.204	30.160	Gg	0.005	2.033	89.217	
5B2		0.003	41.346	0.191	30.160	Gg	0.005	1.744	90.961	
5D1		0.275	41.346	0.379	30.160	Gg	0.004	1.646	92.606	
3B4gi		0.535	41.346	0.263	30.160	Gg	0.003	1.171	93.777	
1A1a		0.001	41.346	0.087	30.160	Gg	0.002	0.793	94.571	
3B4giii		0.013	41.346	0.084	30.160	Gg	0.002	0.690	95.261	
2C7b		0.1	41.346	0.009	30.160	Gg	0.002	0.590	95.851	
2D3i		0.097	41.346	0.128	30.160	Gg	0.001	0.532	96.383	
3B4giv		0.104	41.346	0.026	30.160	Gg	0.001	0.454	96.836	
5B1		0.035	41.346	0.073	30.160	Gg	0.001	0.441	97.278	
1A3bi	Diesel oil	0.005	41.346	0.050	30.160	Gg	0.001	0.430	97.708	
3Da2b		0.043	41.346	0.074	30.160	Gg	0.001	0.388	98.096	
2D3e		0.061	41.346	0.004	30.160	Gg	0.001	0.373	98.469	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		0.003	41.346	0.037	30.160	Gg	0.001	0.321	98.790	
3B2		0.07	41.346	0.085	30.160	Gg	0.001	0.315	99.105	
1A3biii	Diesel oil	0.01	41.346	0.029	30.160	Gg	0.001	0.200	99.305	
1A3bii	Diesel oil	0.003	41.346	0.022	30.160	Gg	0.000	0.180	99.485	
2D3g		0.024	41.346	0.002	30.160	Gg	0.000	0.143	99.628	
1A2gviii			41.346	0.012	30.160	Gg	0.000	0.108	99.736	
2G		0.037	41.346	0.017	30.160	Gg	0.000	0.091	99.827	
1A3bi	Gaseous		41.346	0.004	30.160	Gg	0.000	0.036	99.862	
1A4ai	Biomass	0.003	41.346	0.005	30.160	Gg	0.000	0.028	99.891	
1A4ci	Biomass	0.011	41.346	0.011	30.160	Gg	0.000	0.023	99.914	
2L		0.02	41.346	0.017	30.160	Gg	0.000	0.019	99.932	
1B1b		0.002	41.346	0.003	30.160	Gg	0.000	0.016	99.948	
1A3biv	Gasoline	0.001	41.346	0.002	30.160	Gg	0.000	0.012	99.960	
3B4d		0.006	41.346	0.005	30.160	Gg	0.000	0.012	99.973	
1A2gvii	Liquid	0.002	41.346	0.003	30.160	Gg	0.000	0.011	99.984	
1A3biii	Gaseous		41.346	0.000	30.160	Gg	0.000	0.004	99.988	
2C7c		0	41.346	0.000	30.160	Gg	0.000	0.003	99.991	
1A3bii	Gaseous		41.346	0.000	30.160	Gg	0.000	0.002	99.993	
1A3c	Liquid	0	41.346	0.000	30.160	Gg	0.000	0.002	99.995	
1A4cii	Liquid	0.002	41.346	0.002	30.160	Gg	0.000	0.001	99.996	
1A4bii	Liquid	0	41.346	0.000	30.160	Gg	0.000	0.001	99.997	
1A3bii	Gasoline	0.002	41.346	0.001	30.160	Gg	0.000	0.001	99.998	
1A4ciii	Liquid	0	41.346	0.000	30.160	Gg	0.000	0.001	99.999	
1A4aii	Liquid	0.001	41.346	0.001	30.160	Gg	0.000	0.000	99.999	
1A3dii	Liquid	0.001	41.346	0.001	30.160	Gg	0.000	0.000	100	
1A5a	Liquid	0	41.346	0.000	30.160	Gg	0.000	0.000	100	
1A3biv	Diesel oil		41.346	0.000	30.160	Gg	0.000	0.000	100	

PM2.5

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	7.392	47.346	7.322	13.108	Gg	0.111	36.315	36.315	Yes
1A2d	Biomass	9.011	47.346	0.666	13.108	Gg	0.039	12.588	48.903	Yes
1A3biii	Diesel oil	4.287	47.346	0.082	13.108	Gg	0.023	7.603	56.506	Yes
2C1		3.152	47.346	0.165	13.108	Gg	0.015	4.870	61.376	Yes
1A3bi	Diesel oil	2.366	47.346	0.108	13.108	Gg	0.012	3.765	65.141	Yes
1A3bvi		0.542	47.346	0.601	13.108	Gg	0.010	3.107	68.247	Yes
1A3bvii		0.408	47.346	0.455	13.108	Gg	0.007	2.353	70.601	Yes
1A4cii	Liquid	1.62	47.346	0.134	13.108	Gg	0.007	2.168	72.769	Yes
2H2		0.303	47.346	0.377	13.108	Gg	0.006	2.021	74.790	Yes
1A5a	Biomass	0.002	47.346	0.274	13.108	Gg	0.006	1.883	76.672	Yes
1A1a	Solid	1.103	47.346	0.039	13.108	Gg	0.006	1.836	78.508	Yes

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2H1		1.455	47.346	0.173	13.108	Gg	0.005	1.580	80.089	Yes
1A2gvii	Liquid	1.422	47.346	0.200	13.108	Gg	0.004	1.335	81.424	
1A1a	Liquid	0.704	47.346	0.019	13.108	Gg	0.004	1.213	82.637	
1A3bii	Diesel oil	1.074	47.346	0.125	13.108	Gg	0.004	1.183	83.820	
1A4aii	Liquid	0.746	47.346	0.061	13.108	Gg	0.003	1.001	84.821	
1A2f	Solid	0.526	47.346	0.000	13.108	Gg	0.003	1.000	85.821	
2A5b		0.504	47.346	0.001	13.108	Gg	0.003	0.955	86.777	
3Dc		0.268	47.346	0.204	13.108	Gg	0.003	0.892	87.669	
1A2d	Liquid	0.652	47.346	0.054	13.108	Gg	0.003	0.873	88.542	
1A2gviii	Liquid	0.464	47.346	0.004	13.108	Gg	0.003	0.855	89.397	
1A3dii	Liquid	0.544	47.346	0.268	13.108	Gg	0.002	0.808	90.205	
1A1a	Peat	0.467	47.346	0.043	13.108	Gg	0.002	0.594	90.799	
1A4ci	Biomass	0.101	47.346	0.097	13.108	Gg	0.001	0.476	91.275	
1A4ai	Liquid	0.506	47.346	0.084	13.108	Gg	0.001	0.388	91.663	
1B2aiv		0.189	47.346	0.000	13.108	Gg	0.001	0.360	92.023	
2C2		0.014	47.346	0.055	13.108	Gg	0.001	0.350	92.374	
2B10a		0.738	47.346	0.154	13.108	Gg	0.001	0.350	92.723	
2C7c		0.201	47.346	0.005	13.108	Gg	0.001	0.347	93.071	
1A4bii	Liquid	0.242	47.346	0.117	13.108	Gg	0.001	0.344	93.414	
1A2f	Liquid	0.219	47.346	0.012	13.108	Gg	0.001	0.333	93.747	
1A5a	Liquid	0.308	47.346	0.037	13.108	Gg	0.001	0.333	94.080	
1A4bi	Liquid	0.219	47.346	0.015	13.108	Gg	0.001	0.317	94.397	
1A4bi	Peat	0.208	47.346	0.012	13.108	Gg	0.001	0.310	94.708	
2G		0.24	47.346	0.111	13.108	Gg	0.001	0.309	95.017	
1A4ai	Biomass	0.03	47.346	0.051	13.108	Gg	0.001	0.294	95.311	
1A4ci	Liquid	0.167	47.346	0.005	13.108	Gg	0.001	0.284	95.595	
1B1c		1.085	47.346	0.260	13.108	Gg	0.001	0.275	95.870	
1A2d	Peat	0.154	47.346	0.003	13.108	Gg	0.001	0.270	96.139	
1A2e	Liquid	0.143	47.346	0.002	13.108	Gg	0.001	0.258	96.397	
2D3i		0.064	47.346	0.054	13.108	Gg	0.001	0.252	96.649	
1A2c	Liquid	0.169	47.346	0.011	13.108	Gg	0.001	0.246	96.896	
2I		0.131	47.346	0.001	13.108	Gg	0.001	0.244	97.140	
2A3		0.124	47.346	0.002	13.108	Gg	0.001	0.222	97.361	
1A3bi	Gasoline	0.174	47.346	0.018	13.108	Gg	0.001	0.210	97.571	
1A2d	Solid	0.11	47.346	0.000	13.108	Gg	0.001	0.209	97.779	
3B1b		0.079	47.346	0.048	13.108	Gg	0.001	0.182	97.961	
1A2a	Solid	0.089	47.346	0.001	13.108	Gg	0.000	0.161	98.122	
1A4ci	Peat	0.008	47.346	0.022	13.108	Gg	0.000	0.140	98.262	
1A4ciii	Liquid	0.069	47.346	0.039	13.108	Gg	0.000	0.138	98.400	
1A2gviii	Biomass	0.211	47.346	0.078	13.108	Gg	0.000	0.136	98.536	
1A2a	Liquid	0.069	47.346	0.000	13.108	Gg	0.000	0.130	98.666	
2A5a		0.068	47.346	0.000	13.108	Gg	0.000	0.129	98.795	
3B1a		0.132	47.346	0.052	13.108	Gg	0.000	0.109	98.904	
2D3b		0.087	47.346	0.038	13.108	Gg	0.000	0.099	99.003	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A1b	Liquid	0.096	47.346	0.013	13.108	Gg	0.000	0.091	99.094	
5E		0.378	47.346	0.116	13.108	Gg	0.000	0.080	99.174	
3B4gii		0.003	47.346	0.009	13.108	Gg	0.000	0.058	99.232	
1A2b	Liquid	0.038	47.346	0.002	13.108	Gg	0.000	0.058	99.290	
1A3biv	Gasoline	0.057	47.346	0.008	13.108	Gg	0.000	0.056	99.345	
2L		0.054	47.346	0.007	13.108	Gg	0.000	0.054	99.399	
3B4gi		0.014	47.346	0.011	13.108	Gg	0.000	0.049	99.448	
2A2		0.026	47.346	0.000	13.108	Gg	0.000	0.048	99.496	
2C7a		0.026	47.346	0.000	13.108	Gg	0.000	0.045	99.542	
1B1b		0.003	47.346	0.007	13.108	Gg	0.000	0.044	99.586	
1A2e	Peat	0.023	47.346	0.001	13.108	Gg	0.000	0.040	99.626	
1A3ai(i)	Liquid	0.003	47.346	0.006	13.108	Gg	0.000	0.035	99.661	
3B4e		0.004	47.346	0.006	13.108	Gg	0.000	0.034	99.695	
1A2d	Other	0.005	47.346	0.006	13.108	Gg	0.000	0.031	99.725	
2D3g		0.016	47.346	0.000	13.108	Gg	0.000	0.030	99.756	
1A2b	Solid	0.014	47.346	0.000	13.108	Gg	0.000	0.025	99.781	
2A5c		0.049	47.346	0.017	13.108	Gg	0.000	0.023	99.803	
1A2e	Solid	0.013	47.346	0.001	13.108	Gg	0.000	0.019	99.822	
3B4giii		0.001	47.346	0.003	13.108	Gg	0.000	0.018	99.841	
1A1a	Biomass	0.265	47.346	0.071	13.108	Gg	0.000	0.017	99.858	
1A2gviii	Other	0.009	47.346	0.000	13.108	Gg	0.000	0.015	99.873	
1A2f	Other		47.346	0.002	13.108	Gg	0.000	0.012	99.885	
1A2e	Biomass	0.011	47.346	0.001	13.108	Gg	0.000	0.011	99.896	
1A3bii	Gasoline	0.006	47.346	0.000	13.108	Gg	0.000	0.010	99.906	
1A4ai	Peat	0.002	47.346	0.002	13.108	Gg	0.000	0.009	99.915	
5C1bv		0	47.346	0.001	13.108	Gg	0.000	0.009	99.924	
1A1a	Other	0.001	47.346	0.001	13.108	Gg	0.000	0.008	99.932	
1A3biv	Diesel oil		47.346	0.001	13.108	Gg	0.000	0.008	99.940	
1B2av		0.005	47.346	0.000	13.108	Gg	0.000	0.008	99.948	
3B4h		0.013	47.346	0.005	13.108	Gg	0.000	0.008	99.956	
2B10b		0.001	47.346	0.001	13.108	Gg	0.000	0.007	99.963	
1A3aii(i)	Liquid	0.002	47.346	0.001	13.108	Gg	0.000	0.005	99.968	
3B3		0.004	47.346	0.002	13.108	Gg	0.000	0.005	99.973	
1A2c	Biomass	0.016	47.346	0.005	13.108	Gg	0.000	0.005	99.978	
3B2		0.001	47.346	0.001	13.108	Gg	0.000	0.004	99.982	
3B4giv		0.032	47.346	0.009	13.108	Gg	0.000	0.003	99.986	
2C7d		0.001	47.346	0.001	13.108	Gg	0.000	0.003	99.988	
2D3d		0	47.346	0.000	13.108	Gg	0.000	0.003	99.991	
1A3bi	Gaseous		47.346	0.000	13.108	Gg	0.000	0.002	99.993	
1A2c	Other	0.001	47.346	0.000	13.108	Gg	0.000	0.002	99.995	
1A2gviii	Peat	0.001	47.346	0.001	13.108	Gg	0.000	0.001	99.996	
1A3biii	Gaseous		47.346	0.000	13.108	Gg	0.000	0.001	99.997	
2C3		0.001	47.346	0.000	13.108	Gg	0.000	0.001	99.998	
1A1b	Solid	0	47.346	0.000	13.108	Gg	0.000	0.001	99.998	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Other	0	47.346	0.000	13.108	Gg	0.000	0.000	99.999	
1A3c	Liquid	0.084	47.346	0.023	13.108	Gg	0.000	0.000	99.999	
5A		0	47.346	0.000	13.108	Gg	0.000	0.000	99.999	
1A3bii	Gaseous		47.346	0.000	13.108	Gg	0.000	0.000	100	
3B4d		0	47.346	0.000	13.108	Gg	0.000	0.000	100	
1A2a	Biomass		47.346	0.000	13.108	Gg	0.000	0.000	100	
1A2f	Biomass	0	47.346	0.000	13.108	Gg	0.000	0.000	100	
1A4ci	Solid	0.001	47.346	0.000	13.108	Gg	0.000	0.000	100	

PM10

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	7.63	74.187	7.558	25.728	Gg	0.066	17.877	17.877	Yes
1A3bvii		4.773	74.187	5.355	25.728	Gg	0.050	13.464	31.341	Yes
1A2d	Biomass	11.986	74.187	1.086	25.728	Gg	0.041	11.173	42.514	Yes
3Dc		4.897	74.187	3.678	25.728	Gg	0.027	7.206	49.720	Yes
1A1a	Solid	4.794	74.187	0.123	25.728	Gg	0.021	5.605	55.325	Yes
1A5a	Biomass	0.012	74.187	1.426	25.728	Gg	0.019	5.174	60.498	Yes
1A3biii	Diesel oil	4.287	74.187	0.082	25.728	Gg	0.019	5.111	65.609	Yes
2C1		4.059	74.187	0.182	25.728	Gg	0.017	4.461	70.070	Yes
1A3bvi		0.982	74.187	1.092	25.728	Gg	0.010	2.733	72.803	Yes
1A3bi	Diesel oil	2.366	74.187	0.108	25.728	Gg	0.010	2.593	75.396	Yes
2H1		2.011	74.187	0.262	25.728	Gg	0.006	1.585	76.981	Yes
1A4cii	Liquid	1.62	74.187	0.134	25.728	Gg	0.006	1.559	78.540	Yes
1A1a	Liquid	1.057	74.187	0.023	25.728	Gg	0.005	1.250	79.790	Yes
1A2f	Solid	0.971	74.187	0.004	25.728	Gg	0.004	1.210	81.000	Yes
1A2gvii	Liquid	1.422	74.187	0.200	25.728	Gg	0.004	1.068	82.068	
1A2d	Liquid	0.907	74.187	0.027	25.728	Gg	0.004	1.048	83.116	
2H2		0.32	74.187	0.386	25.728	Gg	0.004	1.001	84.117	
2A5b		0.796	74.187	0.007	25.728	Gg	0.004	0.980	85.097	
1A1a	Peat	1.337	74.187	0.199	25.728	Gg	0.004	0.964	86.061	
1A3bii	Diesel oil	1.074	74.187	0.125	25.728	Gg	0.003	0.899	86.960	
1A2gviii	Liquid	0.737	74.187	0.009	25.728	Gg	0.003	0.897	87.857	
1A4aii	Liquid	0.746	74.187	0.061	25.728	Gg	0.003	0.719	88.576	
1A2d	Solid	0.493	74.187	0.000	25.728	Gg	0.002	0.621	89.198	
1B1c		1.544	74.187	0.371	25.728	Gg	0.002	0.600	89.798	
1A1a	Biomass	0.626	74.187	0.354	25.728	Gg	0.002	0.498	90.296	
2C7c		0.408	74.187	0.006	25.728	Gg	0.002	0.493	90.789	
1A4ai	Liquid	0.814	74.187	0.148	25.728	Gg	0.002	0.487	91.276	
1A2a	Solid	0.398	74.187	0.005	25.728	Gg	0.002	0.482	91.759	
1A5a	Liquid	0.485	74.187	0.051	25.728	Gg	0.002	0.426	92.184	
1B2aiv		0.312	74.187	0.000	25.728	Gg	0.001	0.393	92.577	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2d	Peat	0.326	74.187	0.008	25.728	Gg	0.001	0.383	92.959	
1A4ci	Peat	0.042	74.187	0.117	25.728	Gg	0.001	0.373	93.332	
1A2f	Liquid	0.358	74.187	0.024	25.728	Gg	0.001	0.364	93.696	
1A4bi	Liquid	0.336	74.187	0.019	25.728	Gg	0.001	0.356	94.051	
3B4gii		0.031	74.187	0.093	25.728	Gg	0.001	0.301	94.352	
3B4gi		0.189	74.187	0.147	25.728	Gg	0.001	0.298	94.650	
1A3dii	Liquid	0.565	74.187	0.276	25.728	Gg	0.001	0.291	94.941	
2I		0.271	74.187	0.015	25.728	Gg	0.001	0.286	95.227	
1A4ci	Liquid	0.269	74.187	0.015	25.728	Gg	0.001	0.284	95.511	
2A5a		0.23	74.187	0.002	25.728	Gg	0.001	0.282	95.794	
1A2gviii	Biomass	0.678	74.187	0.162	25.728	Gg	0.001	0.265	96.059	
1A2e	Liquid	0.221	74.187	0.005	25.728	Gg	0.001	0.263	96.322	
2C2		0.02	74.187	0.078	25.728	Gg	0.001	0.257	96.579	
1A4ci	Biomass	0.104	74.187	0.106	25.728	Gg	0.001	0.255	96.834	
1A4bi	Peat	0.234	74.187	0.014	25.728	Gg	0.001	0.244	97.079	
1A2c	Liquid	0.267	74.187	0.027	25.728	Gg	0.001	0.239	97.318	
1A1b	Liquid	0.223	74.187	0.021	25.728	Gg	0.001	0.205	97.523	
2A3		0.142	74.187	0.002	25.728	Gg	0.001	0.171	97.694	
2B10a		1.156	74.187	0.357	25.728	Gg	0.001	0.161	97.855	
1A3bi	Gasoline	0.174	74.187	0.018	25.728	Gg	0.001	0.155	98.010	
1A4ai	Biomass	0.032	74.187	0.053	25.728	Gg	0.001	0.151	98.162	
1A2a	Liquid	0.117	74.187	0.000	25.728	Gg	0.001	0.147	98.309	
1A2e	Peat	0.111	74.187	0.003	25.728	Gg	0.000	0.128	98.437	
1A4bii	Liquid	0.242	74.187	0.117	25.728	Gg	0.000	0.120	98.557	
3B1b		0.122	74.187	0.074	25.728	Gg	0.000	0.117	98.674	
2G		0.24	74.187	0.112	25.728	Gg	0.000	0.103	98.776	
2A2		0.072	74.187	0.001	25.728	Gg	0.000	0.086	98.863	
1A2b	Solid	0.072	74.187	0.001	25.728	Gg	0.000	0.086	98.949	
1A2e	Solid	0.065	74.187	0.004	25.728	Gg	0.000	0.069	99.018	
1A4ciii	Liquid	0.077	74.187	0.044	25.728	Gg	0.000	0.062	99.080	
2L		0.081	74.187	0.011	25.728	Gg	0.000	0.061	99.141	
1A2b	Liquid	0.059	74.187	0.004	25.728	Gg	0.000	0.060	99.201	
5E		0.378	74.187	0.116	25.728	Gg	0.000	0.054	99.255	
1B1b		0.008	74.187	0.018	25.728	Gg	0.000	0.054	99.309	
1A2gviii	Other	0.048	74.187	0.002	25.728	Gg	0.000	0.054	99.362	
3B4giii		0.003	74.187	0.016	25.728	Gg	0.000	0.053	99.415	
3B4giv		0.227	74.187	0.066	25.728	Gg	0.000	0.045	99.461	
1A3biv	Gasoline	0.057	74.187	0.008	25.728	Gg	0.000	0.044	99.504	
1A2d	Other	0.011	74.187	0.015	25.728	Gg	0.000	0.042	99.546	
2C7a		0.034	74.187	0.001	25.728	Gg	0.000	0.040	99.586	
3B3		0.086	74.187	0.041	25.728	Gg	0.000	0.040	99.626	
3B1a		0.203	74.187	0.081	25.728	Gg	0.000	0.037	99.663	
2D3b		0.095	74.187	0.042	25.728	Gg	0.000	0.033	99.696	
2B10b		0.007	74.187	0.011	25.728	Gg	0.000	0.029	99.725	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
3B4e		0.006	74.187	0.009	25.728	Gg	0.000	0.026	99.752	
1A4ai	Peat	0.009	74.187	0.009	25.728	Gg	0.000	0.023	99.775	
1A2e	Biomass	0.04	74.187	0.008	25.728	Gg	0.000	0.023	99.798	
1A3c	Liquid	0.089	74.187	0.024	25.728	Gg	0.000	0.023	99.820	
2D3i		0.187	74.187	0.059	25.728	Gg	0.000	0.022	99.843	
2D3g		0.017	74.187	0.000	25.728	Gg	0.000	0.021	99.864	
1A1a	Other	0.002	74.187	0.006	25.728	Gg	0.000	0.020	99.884	
1A3ai(i)	Liquid	0.003	74.187	0.006	25.728	Gg	0.000	0.018	99.902	
2A5c		0.477	74.187	0.162	25.728	Gg	0.000	0.014	99.916	
2C7d		0.006	74.187	0.006	25.728	Gg	0.000	0.012	99.928	
1A2f	Other		74.187	0.003	25.728	Gg	0.000	0.011	99.939	
1A2c	Biomass	0.025	74.187	0.006	25.728	Gg	0.000	0.011	99.950	
1A3bii	Gasoline	0.006	74.187	0.000	25.728	Gg	0.000	0.007	99.957	
1A2c	Other	0.006	74.187	0.000	25.728	Gg	0.000	0.007	99.964	
3B2		0.002	74.187	0.002	25.728	Gg	0.000	0.006	99.970	
1B2av		0.005	74.187	0.000	25.728	Gg	0.000	0.005	99.975	
5C1bv		0	74.187	0.001	25.728	Gg	0.000	0.005	99.980	
1A3biv	Diesel oil		74.187	0.001	25.728	Gg	0.000	0.004	99.984	
1A3aii(i)	Liquid	0.002	74.187	0.001	25.728	Gg	0.000	0.002	99.986	
1A1b	Solid	0.002	74.187	0.000	25.728	Gg	0.000	0.002	99.989	
2D3d		0	74.187	0.001	25.728	Gg	0.000	0.002	99.991	
1A2gviii	Peat	0.005	74.187	0.001	25.728	Gg	0.000	0.002	99.992	
2C3		0.002	74.187	0.000	25.728	Gg	0.000	0.001	99.994	
3B4h		0.027	74.187	0.010	25.728	Gg	0.000	0.001	99.995	
1A3bi	Gaseous		74.187	0.000	25.728	Gg	0.000	0.001	99.996	
1A2a	Biomass		74.187	0.000	25.728	Gg	0.000	0.001	99.997	
1A2f	Biomass	0	74.187	0.000	25.728	Gg	0.000	0.001	99.998	
5A		0.001	74.187	0.001	25.728	Gg	0.000	0.000	99.999	
1A3biii	Gaseous		74.187	0.000	25.728	Gg	0.000	0.000	99.999	
1A4bi	Other	0	74.187	0.000	25.728	Gg	0.000	0.000	100	
3B4d		0	74.187	0.000	25.728	Gg	0.000	0.000	100	
1A3bii	Gaseous		74.187	0.000	25.728	Gg	0.000	0.000	100	
1A4ci	Solid	0.003	74.187	0.001	25.728	Gg	0.000	0.000	100	

TSP

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bvii		9.546	98.975	10.710	39.531	Gg	0.070	16.177	16.177	Yes
1A5a	Biomass	0.046	98.975	5.483	39.531	Gg	0.055	12.819	28.996	Yes
1A4bi	Biomass	7.948	98.975	7.873	39.531	Gg	0.047	11.021	40.017	Yes
1A2d	Biomass	14.007	98.975	1.263	39.531	Gg	0.044	10.160	50.177	Yes
1A1a	Solid	7.164	98.975	0.156	39.531	Gg	0.027	6.346	56.523	Yes

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		5.545	98.975	0.217	39.531	Gg	0.020	4.686	61.209	Yes
3Dc		4.897	98.975	3.678	39.531	Gg	0.017	4.040	65.249	Yes
1A3biii	Diesel oil	4.287	98.975	0.082	39.531	Gg	0.016	3.823	69.072	Yes
1A3bvi		1.325	98.975	1.471	39.531	Gg	0.010	2.209	71.281	Yes
1A3bi	Diesel oil	2.366	98.975	0.108	39.531	Gg	0.008	1.963	73.244	Yes
1A2f	Solid	1.954	98.975	0.009	39.531	Gg	0.008	1.808	75.052	Yes
2H1		2.447	98.975	0.288	39.531	Gg	0.007	1.616	76.669	Yes
1A2d	Liquid	1.441	98.975	0.054	39.531	Gg	0.005	1.224	77.892	Yes
1A4cii	Liquid	1.62	98.975	0.134	39.531	Gg	0.005	1.204	79.097	Yes
1A1a	Liquid	1.214	98.975	0.037	39.531	Gg	0.005	1.051	80.148	Yes
1A4ci	Peat	0.16	98.975	0.450	39.531	Gg	0.004	0.905	81.053	
2A5b		1.014	98.975	0.022	39.531	Gg	0.004	0.897	81.950	
1B1c		2.363	98.975	0.567	39.531	Gg	0.004	0.883	82.833	
1A2gvii	Liquid	1.422	98.975	0.200	39.531	Gg	0.004	0.864	83.697	
1A2a	Solid	0.941	98.975	0.014	39.531	Gg	0.004	0.848	84.545	
1A2gviii	Biomass	1.586	98.975	0.286	39.531	Gg	0.004	0.814	85.359	
3B4gi		0.897	98.975	0.700	39.531	Gg	0.003	0.802	86.161	
2C7c		0.855	98.975	0.009	39.531	Gg	0.003	0.779	86.940	
1A2gviii	Liquid	0.821	98.975	0.015	39.531	Gg	0.003	0.735	87.675	
1A3bii	Diesel oil	1.074	98.975	0.125	39.531	Gg	0.003	0.712	88.387	
1A2d	Solid	0.715	98.975	0.000	39.531	Gg	0.003	0.670	89.056	
2H2		0.329	98.975	0.400	39.531	Gg	0.003	0.631	89.687	
1A4aii	Liquid	0.746	98.975	0.061	39.531	Gg	0.002	0.556	90.243	
1A1a	Peat	2.295	98.975	0.701	39.531	Gg	0.002	0.507	90.749	
1A1a	Biomass	1.331	98.975	0.737	39.531	Gg	0.002	0.483	91.232	
1A4ai	Liquid	0.994	98.975	0.198	39.531	Gg	0.002	0.466	91.698	
1B2aiv		0.442	98.975	0.000	39.531	Gg	0.002	0.414	92.112	
2D3i		0.598	98.975	0.063	39.531	Gg	0.002	0.412	92.524	
1A5a	Liquid	0.591	98.975	0.069	39.531	Gg	0.002	0.393	92.917	
1A2d	Peat	0.435	98.975	0.010	39.531	Gg	0.002	0.384	93.301	
3B4gii		0.061	98.975	0.186	39.531	Gg	0.002	0.380	93.681	
2I		0.59	98.975	0.079	39.531	Gg	0.002	0.367	94.049	
2A5a		0.4	98.975	0.004	39.531	Gg	0.002	0.366	94.414	
2B10a		1.409	98.975	0.408	39.531	Gg	0.002	0.362	94.776	
1A2f	Liquid	0.449	98.975	0.030	39.531	Gg	0.002	0.350	95.125	
1A4bi	Liquid	0.425	98.975	0.021	39.531	Gg	0.002	0.349	95.475	
1A1b	Liquid	0.536	98.975	0.075	39.531	Gg	0.001	0.326	95.800	
1A2b	Solid	0.277	98.975	0.005	39.531	Gg	0.001	0.248	96.048	
1A4ci	Liquid	0.329	98.975	0.027	39.531	Gg	0.001	0.244	96.293	
1A2e	Liquid	0.26	98.975	0.006	39.531	Gg	0.001	0.229	96.521	
1A2e	Solid	0.251	98.975	0.006	39.531	Gg	0.001	0.222	96.743	
1A4bi	Peat	0.26	98.975	0.016	39.531	Gg	0.001	0.207	96.950	
1A2c	Liquid	0.299	98.975	0.031	39.531	Gg	0.001	0.206	97.156	
2C2		0.023	98.975	0.091	39.531	Gg	0.001	0.192	97.349	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4ci	Biomass	0.108	98.975	0.116	39.531	Gg	0.001	0.172	97.520	
1A2gviii	Other	0.189	98.975	0.003	39.531	Gg	0.001	0.171	97.691	
2A2		0.174	98.975	0.003	39.531	Gg	0.001	0.157	97.848	
2A5c		1.217	98.975	0.420	39.531	Gg	0.001	0.155	98.003	
1A2a	Liquid	0.157	98.975	0.000	39.531	Gg	0.001	0.146	98.149	
2A3		0.158	98.975	0.003	39.531	Gg	0.001	0.142	98.291	
1A2e	Peat	0.169	98.975	0.009	39.531	Gg	0.001	0.138	98.429	
3B3		0.518	98.975	0.264	39.531	Gg	0.001	0.135	98.564	
3B1b		0.264	98.975	0.161	39.531	Gg	0.001	0.130	98.694	
1A3bi	Gasoline	0.174	98.975	0.018	39.531	Gg	0.001	0.121	98.816	
1A3dii	Liquid	0.565	98.975	0.276	39.531	Gg	0.001	0.118	98.933	
1A4ai	Biomass	0.037	98.975	0.055	39.531	Gg	0.000	0.094	99.027	
5E		0.378	98.975	0.116	39.531	Gg	0.000	0.081	99.109	
1B1b		0.019	98.975	0.042	39.531	Gg	0.000	0.080	99.189	
3B4giv		0.234	98.975	0.070	39.531	Gg	0.000	0.056	99.245	
2B10b		0.023	98.975	0.033	39.531	Gg	0.000	0.056	99.301	
1A2b	Liquid	0.069	98.975	0.005	39.531	Gg	0.000	0.054	99.354	
1A4ai	Peat	0.034	98.975	0.036	39.531	Gg	0.000	0.053	99.407	
2L		0.093	98.975	0.015	39.531	Gg	0.000	0.051	99.459	
1A4bii	Liquid	0.242	98.975	0.117	39.531	Gg	0.000	0.048	99.506	
1A2d	Other	0.017	98.975	0.024	39.531	Gg	0.000	0.041	99.547	
2C7a		0.043	98.975	0.001	39.531	Gg	0.000	0.038	99.585	
2G		0.24	98.975	0.112	39.531	Gg	0.000	0.036	99.622	
1A3biv	Gasoline	0.057	98.975	0.008	39.531	Gg	0.000	0.035	99.657	
3B4e		0.014	98.975	0.021	39.531	Gg	0.000	0.035	99.692	
1A2e	Biomass	0.074	98.975	0.015	39.531	Gg	0.000	0.035	99.727	
3B4giii		0.003	98.975	0.016	39.531	Gg	0.000	0.034	99.760	
1A1a	Other	0.013	98.975	0.019	39.531	Gg	0.000	0.032	99.793	
1A4ciii	Liquid	0.077	98.975	0.044	39.531	Gg	0.000	0.030	99.823	
1A3c	Liquid	0.094	98.975	0.026	39.531	Gg	0.000	0.027	99.850	
1A2c	Other	0.023	98.975	0.000	39.531	Gg	0.000	0.021	99.871	
2D3g		0.019	98.975	0.000	39.531	Gg	0.000	0.017	99.888	
2C7d		0.012	98.975	0.011	39.531	Gg	0.000	0.014	99.902	
2D3b		0.126	98.975	0.056	39.531	Gg	0.000	0.013	99.915	
1A2f	Other	0.029	98.975	0.007	39.531	Gg	0.000	0.012	99.926	
1A3ai(i)	Liquid	0.003	98.975	0.006	39.531	Gg	0.000	0.011	99.937	
1A2c	Biomass	0.029	98.975	0.008	39.531	Gg	0.000	0.010	99.947	
3B2		0.005	98.975	0.006	39.531	Gg	0.000	0.009	99.956	
1A1b	Solid	0.009	98.975	0.001	39.531	Gg	0.000	0.006	99.963	
3B4h		0.06	98.975	0.022	39.531	Gg	0.000	0.006	99.968	
1A3bii	Gasoline	0.006	98.975	0.000	39.531	Gg	0.000	0.005	99.973	
1B2av		0.005	98.975	0.000	39.531	Gg	0.000	0.004	99.977	
5C1bv		0	98.975	0.002	39.531	Gg	0.000	0.003	99.981	
3B1a		0.445	98.975	0.177	39.531	Gg	0.000	0.003	99.983	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3biv	Diesel oil		98.975	0.001	39.531	Gg	0.000	0.003	99.986	
1A2a	Biomass		98.975	0.001	39.531	Gg	0.000	0.003	99.989	
1A2f	Biomass	0.001	98.975	0.001	39.531	Gg	0.000	0.002	99.991	
1A4ci	Solid	0.008	98.975	0.002	39.531	Gg	0.000	0.002	99.993	
2D3d		0.001	98.975	0.001	39.531	Gg	0.000	0.002	99.994	
2C3		0.003	98.975	0.000	39.531	Gg	0.000	0.002	99.996	
1A3aii(i)	Liquid	0.002	98.975	0.001	39.531	Gg	0.000	0.001	99.997	
1A3bi	Gaseous		98.975	0.000	39.531	Gg	0.000	0.001	99.998	
1A2gviii	Peat	0.007	98.975	0.003	39.531	Gg	0.000	0.001	99.999	
3B4d		0	98.975	0.000	39.531	Gg	0.000	0.000	99.999	
5A		0.003	98.975	0.001	39.531	Gg	0.000	0.000	99.999	
1A4bi	Other	0	98.975	0.000	39.531	Gg	0.000	0.000	100	
1A3biii	Gaseous		98.975	0.000	39.531	Gg	0.000	0.000	100	
1A3bii	Gaseous		98.975	0.000	39.531	Gg	0.000	0.000	100	

BC

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2B10a		0.013	10.145	0.003	3.063	Gg	1.598	58.133	58.133	Yes
2A3		0	10.145	0.000	3.063	Gg	0.800	29.096	87.229	Yes
1A4bi	Biomass	2.26	10.145	2.148	3.063	Gg	0.144	5.257	92.486	
1A3biii	Diesel oil	2.272	10.145	0.044	3.063	Gg	0.063	2.303	94.789	
1A3bi	Diesel oil	1.349	10.145	0.062	3.063	Gg	0.034	1.239	96.029	
1A4cii	Liquid	0.877	10.145	0.058	3.063	Gg	0.020	0.742	96.771	
1A2gvii	Liquid	0.877	10.145	0.122	3.063	Gg	0.014	0.513	97.284	
1A3bvi		0.14	10.145	0.155	3.063	Gg	0.011	0.405	97.689	
1A3bii	Diesel oil	0.591	10.145	0.069	3.063	Gg	0.011	0.392	98.081	
1A5a	Biomass	0	10.145	0.077	3.063	Gg	0.008	0.275	98.356	
1A3bvii		0.079	10.145	0.089	3.063	Gg	0.006	0.233	98.589	
1A4aii	Liquid	0.23	10.145	0.015	3.063	Gg	0.005	0.195	98.784	
1A1a	Liquid	0.177	10.145	0.004	3.063	Gg	0.005	0.179	98.964	
1A2gviii	Liquid	0.14	10.145	0.001	3.063	Gg	0.004	0.147	99.111	
1A3dii	Liquid	0.069	10.145	0.048	3.063	Gg	0.003	0.096	99.207	
1A2d	Liquid	0.103	10.145	0.005	3.063	Gg	0.003	0.092	99.299	
1A4ai	Liquid	0.152	10.145	0.025	3.063	Gg	0.002	0.074	99.373	
1A2f	Liquid	0.066	10.145	0.003	3.063	Gg	0.002	0.062	99.435	
1A4bi	Liquid	0.072	10.145	0.005	3.063	Gg	0.002	0.061	99.496	
1A4bii	Liquid	0.027	10.145	0.023	3.063	Gg	0.001	0.054	99.550	
1A4ci	Liquid	0.05	10.145	0.002	3.063	Gg	0.001	0.049	99.598	
1A5a	Liquid	0.094	10.145	0.016	3.063	Gg	0.001	0.045	99.643	
1A2e	Liquid	0.043	10.145	0.001	3.063	Gg	0.001	0.044	99.688	
1A2c	Liquid	0.05	10.145	0.003	3.063	Gg	0.001	0.044	99.731	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2H1		0.047	10.145	0.005	3.063	Gg	0.001	0.035	99.766	
1A1a	Solid	0.024	10.145	0.001	3.063	Gg	0.001	0.023	99.789	
1A4ciii	Liquid	0.024	10.145	0.014	3.063	Gg	0.001	0.023	99.812	
2C2		0.001	10.145	0.005	3.063	Gg	0.000	0.018	99.830	
1A2a	Liquid	0.015	10.145	0.000	3.063	Gg	0.000	0.016	99.847	
1A3bi	Gasoline	0.021	10.145	0.002	3.063	Gg	0.000	0.015	99.861	
1A2f	Solid	0.012	10.145	0.000	3.063	Gg	0.000	0.012	99.874	
1A1a	Peat	0.015	10.145	0.001	3.063	Gg	0.000	0.012	99.886	
1B1b		0.002	10.145	0.004	3.063	Gg	0.000	0.011	99.897	
2C1		0.012	10.145	0.001	3.063	Gg	0.000	0.011	99.907	
1A2b	Liquid	0.011	10.145	0.000	3.063	Gg	0.000	0.011	99.918	
1A1b	Liquid	0.011	10.145	0.000	3.063	Gg	0.000	0.010	99.928	
1A3ai(i)	Liquid	0.002	10.145	0.003	3.063	Gg	0.000	0.009	99.937	
1A4ci	Biomass	0.003	10.145	0.003	3.063	Gg	0.000	0.008	99.945	
1A4bi	Peat	0.007	10.145	0.000	3.063	Gg	0.000	0.006	99.950	
1A2d	Peat	0.005	10.145	0.000	3.063	Gg	0.000	0.005	99.956	
1A3c	Liquid	0.055	10.145	0.015	3.063	Gg	0.000	0.005	99.961	
1A4ai	Biomass	0.001	10.145	0.002	3.063	Gg	0.000	0.005	99.965	
1A3biv	Gasoline	0.006	10.145	0.001	3.063	Gg	0.000	0.004	99.969	
1A1a	Biomass	0.005	10.145	0.002	3.063	Gg	0.000	0.003	99.972	
1A2d	Biomass	0.031	10.145	0.009	3.063	Gg	0.000	0.003	99.975	
1A2d	Solid	0.002	10.145	0.000	3.063	Gg	0.000	0.003	99.977	
2D3b		0.005	10.145	0.002	3.063	Gg	0.000	0.002	99.980	
1A2gviii	Other	0.002	10.145	0.000	3.063	Gg	0.000	0.002	99.982	
1A3biv	Diesel oil		10.145	0.001	3.063	Gg	0.000	0.002	99.985	
1A4ci	Peat	0	10.145	0.001	3.063	Gg	0.000	0.002	99.987	
5C1bv		0	10.145	0.001	3.063	Gg	0.000	0.002	99.989	
1A2a	Solid	0.002	10.145	0.000	3.063	Gg	0.000	0.002	99.991	
1A2f	Other		10.145	0.000	3.063	Gg	0.000	0.002	99.993	
1A2gviii	Biomass	0.007	10.145	0.003	3.063	Gg	0.000	0.002	99.994	
1A3aii(i)	Liquid	0.001	10.145	0.001	3.063	Gg	0.000	0.001	99.996	
1A2e	Peat	0.001	10.145	0.000	3.063	Gg	0.000	0.001	99.996	
1A2d	Other	0.002	10.145	0.000	3.063	Gg	0.000	0.001	99.997	
2G		0.001	10.145	0.001	3.063	Gg	0.000	0.001	99.998	
1A2b	Solid	0	10.145	0.000	3.063	Gg	0.000	0.000	99.998	
1A3bii	Gasoline	0	10.145	0.000	3.063	Gg	0.000	0.000	99.998	
5E		0.033	10.145	0.010	3.063	Gg	0.000	0.000	99.999	
1A2e	Solid	0	10.145	0.000	3.063	Gg	0.000	0.000	99.999	
1A2c	Other	0	10.145	0.000	3.063	Gg	0.000	0.000	99.999	
1A1a	Other	0	10.145	0.000	3.063	Gg	0.000	0.000	99.999	
1A4ai	Peat	0	10.145	0.000	3.063	Gg	0.000	0.000	99.999	
1A4bi	Other	0	10.145	0.000	3.063	Gg	0.000	0.000	100	
2A2		0	10.145	0.000	3.063	Gg	0.000	0.000	100	
1A2e	Biomass	0	10.145	0.000	3.063	Gg	0.000	0.000	100	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2c	Biomass	0.001	10.145	0.000	3.063	Gg	0.000	0.000	100	
2C7a		0	10.145	0.000	3.063	Gg	0.000	0.000	100	
1A2gviii	Peat	0	10.145	0.000	3.063	Gg	0.000	0.000	100	
2D3i		0	10.145	0.000	3.063	Gg	0.000	0.000	100	
2C3		0	10.145	0.000	3.063	Gg	0.000	0.000	100	
1A1b	Solid	0	10.145	0.000	3.063	Gg	0.000	0.000	100	
1A2a	Biomass		10.145	0.000	3.063	Gg	0.000	0.000	100	
1A4ci	Solid	0	10.145	0.000	3.063	Gg	0.000	0.000	100	
1A2f	Biomass	0	10.145	0.000	3.063	Gg	0.000	0.000	100	

CO

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	412.338	764.634	15.664	298.374	Gg	0.190	42.510	42.510	Yes
1A4bi	Biomass	124.241	764.634	138.321	298.374	Gg	0.117	26.295	68.805	Yes
1A4bii	Liquid	34.909	764.634	33.586	298.374	Gg	0.026	5.843	74.648	Yes
1A5a	Biomass	0.13	764.634	13.709	298.374	Gg	0.018	3.998	78.645	Yes
1A1a	Biomass	1.545	764.634	12.206	298.374	Gg	0.015	3.396	82.042	Yes
1A3dii	Liquid	22.554	764.634	20.061	298.374	Gg	0.015	3.296	85.337	
1A4aii	Liquid	11.336	764.634	14.795	298.374	Gg	0.014	3.036	88.373	
1A3bii	Gasoline	18.286	764.634	0.242	298.374	Gg	0.009	2.018	90.391	
1A2f	Solid	12.941	764.634	0.627	298.374	Gg	0.006	1.295	91.685	
1A3biii	Diesel oil	15.069	764.634	1.943	298.374	Gg	0.005	1.152	92.838	
1A2d	Biomass	25.273	764.634	13.548	298.374	Gg	0.005	1.079	93.917	
1A3bi	Diesel oil	9.979	764.634	0.477	298.374	Gg	0.004	1.000	94.917	
1A2gvii	Liquid	8.424	764.634	6.412	298.374	Gg	0.004	0.914	95.831	
1A2a	Solid	6.922	764.634	0.547	298.374	Gg	0.003	0.630	96.462	
1A2f	Liquid	1.281	764.634	1.653	298.374	Gg	0.002	0.337	96.799	
1A2gviii	Biomass	3.848	764.634	2.487	298.374	Gg	0.001	0.288	97.087	
1A4ci	Biomass	1.515	764.634	1.501	298.374	Gg	0.001	0.266	97.354	
1A3bii	Diesel oil	4.107	764.634	0.836	298.374	Gg	0.001	0.225	97.578	
1A2f	Gaseous	1.888	764.634	0.028	298.374	Gg	0.001	0.208	97.786	
1A2f	Other		764.634	0.628	298.374	Gg	0.001	0.184	97.969	
1A1a	Peat	1.544	764.634	1.210	298.374	Gg	0.001	0.178	98.147	
1A4ai	Biomass	0.455	764.634	0.747	298.374	Gg	0.001	0.167	98.314	
1A3ai(i)	Liquid	0.231	764.634	0.604	298.374	Gg	0.001	0.150	98.464	
1A2d	Gaseous	1.836	764.634	0.255	298.374	Gg	0.001	0.135	98.599	
1A3biv	Gasoline	7.906	764.634	2.679	298.374	Gg	0.001	0.119	98.718	
1A5a	Gaseous	0.115	764.634	0.366	298.374	Gg	0.000	0.094	98.812	
1A2d	Other	0.008	764.634	0.280	298.374	Gg	0.000	0.081	98.893	
1A2d	Liquid	1.041	764.634	0.150	298.374	Gg	0.000	0.075	98.968	
1A2d	Solid	0.645	764.634	0.001	298.374	Gg	0.000	0.074	99.042	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Liquid	0.785	764.634	0.070	298.374	Gg	0.000	0.069	99.111	
1A5a	Liquid	2.031	764.634	1.019	298.374	Gg	0.000	0.066	99.177	
1A4cii	Liquid	18.799	764.634	7.543	298.374	Gg	0.000	0.061	99.238	
1A4ci	Peat	0.08	764.634	0.236	298.374	Gg	0.000	0.060	99.298	
1A2e	Biomass	0.079	764.634	0.234	298.374	Gg	0.000	0.060	99.357	
1A1a	Other	0.008	764.634	0.171	298.374	Gg	0.000	0.049	99.407	
1A2d	Peat	0.7	764.634	0.116	298.374	Gg	0.000	0.046	99.453	
1A2c	Liquid	0.191	764.634	0.230	298.374	Gg	0.000	0.045	99.498	
1A1a	Solid	0.793	764.634	0.162	298.374	Gg	0.000	0.043	99.541	
1A1b	Liquid	0.406	764.634	0.285	298.374	Gg	0.000	0.037	99.578	
1A2a	Gaseous	0.023	764.634	0.126	298.374	Gg	0.000	0.034	99.612	
1A2f	Biomass	0	764.634	0.106	298.374	Gg	0.000	0.031	99.644	
1A2a	Liquid	0.246	764.634	0.007	298.374	Gg	0.000	0.026	99.670	
1A4ciii	Liquid	0.442	764.634	0.261	298.374	Gg	0.000	0.026	99.696	
2C1		0.464	764.634	0.096	298.374	Gg	0.000	0.025	99.720	
2C7a		0.223	764.634	0.014	298.374	Gg	0.000	0.021	99.742	
1A2b	Liquid	0.02	764.634	0.081	298.374	Gg	0.000	0.021	99.763	
1A2gviii	Peat	0.024	764.634	0.081	298.374	Gg	0.000	0.021	99.784	
1A2gviii	Other	0.279	764.634	0.041	298.374	Gg	0.000	0.020	99.804	
1A2gviii	Gaseous	0.053	764.634	0.084	298.374	Gg	0.000	0.018	99.823	
1A1b	Gaseous	0.167	764.634	0.121	298.374	Gg	0.000	0.016	99.839	
1A3bi	Gaseous		764.634	0.048	298.374	Gg	0.000	0.014	99.853	
2G		0.493	764.634	0.237	298.374	Gg	0.000	0.013	99.866	
1A1a	Gaseous	0.779	764.634	0.261	298.374	Gg	0.000	0.013	99.878	
1A4bi	Peat	0.13	764.634	0.008	298.374	Gg	0.000	0.013	99.891	
1A3c	Liquid	0.548	764.634	0.174	298.374	Gg	0.000	0.012	99.903	
1A2c	Other	0.111	764.634	0.003	298.374	Gg	0.000	0.012	99.915	
1A2gviii	Liquid	0.202	764.634	0.047	298.374	Gg	0.000	0.009	99.924	
1A2b	Solid	0.079	764.634	0.004	298.374	Gg	0.000	0.008	99.932	
1A2e	Liquid	0.09	764.634	0.009	298.374	Gg	0.000	0.008	99.939	
1A2e	Peat	0.143	764.634	0.080	298.374	Gg	0.000	0.007	99.946	
1A3biv	Diesel oil		764.634	0.021	298.374	Gg	0.000	0.006	99.952	
1A3biii	Gaseous		764.634	0.019	298.374	Gg	0.000	0.006	99.958	
1A3aii(i)	Liquid	0.631	764.634	0.229	298.374	Gg	0.000	0.005	99.963	
1A1b	Biomass		764.634	0.015	298.374	Gg	0.000	0.004	99.968	
1A4ai	Gaseous	0.031	764.634	0.027	298.374	Gg	0.000	0.004	99.972	
1A2c	Gaseous	0.034	764.634	0.028	298.374	Gg	0.000	0.004	99.976	
1A2e	Solid	0.053	764.634	0.008	298.374	Gg	0.000	0.004	99.980	
1A4ai	Peat	0.018	764.634	0.018	298.374	Gg	0.000	0.003	99.983	
1A1b	Solid	0.001	764.634	0.009	298.374	Gg	0.000	0.002	99.985	
1A2c	Biomass	0.021	764.634	0.016	298.374	Gg	0.000	0.002	99.988	
1A3bii	Gaseous		764.634	0.008	298.374	Gg	0.000	0.002	99.990	
1A4bi	Gaseous	0.03	764.634	0.018	298.374	Gg	0.000	0.002	99.992	
1A1a	Liquid	0.371	764.634	0.139	298.374	Gg	0.000	0.002	99.993	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4ci	Gaseous	0.022	764.634	0.003	298.374	Gg	0.000	0.002	99.995	
1A2e	Gaseous	0.018	764.634	0.012	298.374	Gg	0.000	0.002	99.997	
1A4ci	Liquid	0.183	764.634	0.076	298.374	Gg	0.000	0.001	99.998	
1A4ai	Liquid	0.527	764.634	0.209	298.374	Gg	0.000	0.001	99.999	
1A2b	Gaseous		764.634	0.002	298.374	Gg	0.000	0.001	99.999	
1A2a	Biomass		764.634	0.001	298.374	Gg	0.000	0.000	100	
1A4ci	Solid	0.007	764.634	0.003	298.374	Gg	0.000	0.000	100	
1A4bi	Other	0.001	764.634	0.000	298.374	Gg	0.000	0.000	100	
1A3ei	Gaseous	0.001	764.634	0.000	298.374	Gg	0.000	0.000	100	

Pb

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	166.003	321.435	0.002	12.089	Mg	0.019	29.672	29.672	Yes
1A1b	Liquid	2.049	321.435	3.019	12.089	Mg	0.009	13.986	43.658	Yes
2C7c		80.081	321.435	0.300	12.089	Mg	0.008	12.893	56.551	Yes
1A2d	Biomass	4.479	321.435	2.376	12.089	Mg	0.007	10.493	67.044	Yes
1A5a	Biomass	0.015	321.435	1.234	12.089	Mg	0.004	5.862	72.907	Yes
2G		0.31	321.435	1.053	12.089	Mg	0.003	4.949	77.855	Yes
2C1		34.463	321.435	0.375	12.089	Mg	0.003	4.381	82.236	Yes
1A1a	Peat	1.291	321.435	0.757	12.089	Mg	0.002	3.368	85.604	
1A1a	Biomass	0.179	321.435	0.597	12.089	Mg	0.002	2.804	88.408	
1A4bi	Biomass	0.413	321.435	0.472	12.089	Mg	0.001	2.169	90.577	
1A3bii	Gasoline	6.4	321.435	0.000	12.089	Mg	0.001	1.144	91.721	
1A2f	Solid	2.811	321.435	0.342	12.089	Mg	0.001	1.125	92.846	
1A4ci	Peat	0.068	321.435	0.194	12.089	Mg	0.001	0.908	93.755	
1A1a	Solid	5.751	321.435	0.027	12.089	Mg	0.001	0.902	94.657	
1A3bvi		7.22	321.435	0.457	12.089	Mg	0.001	0.883	95.540	
1A2d	Other	0.001	321.435	0.152	12.089	Mg	0.000	0.723	96.263	
1A1a	Other	0.001	321.435	0.128	12.089	Mg	0.000	0.609	96.872	
1A2gviii	Biomass	0.319	321.435	0.097	12.089	Mg	0.000	0.403	97.274	
1A2e	Peat	0.167	321.435	0.075	12.089	Mg	0.000	0.326	97.601	
1A4ci	Biomass	0.065	321.435	0.066	12.089	Mg	0.000	0.304	97.905	
1A3biv	Gasoline	1.3	321.435	0.000	12.089	Mg	0.000	0.232	98.137	
1A2e	Solid	1.384	321.435	0.013	12.089	Mg	0.000	0.184	98.321	
1A2d	Solid	1.025	321.435	0.000	12.089	Mg	0.000	0.183	98.504	
1A3aii(i)	Liquid	0.297	321.435	0.049	12.089	Mg	0.000	0.179	98.683	
1A4ai	Biomass	0.02	321.435	0.033	12.089	Mg	0.000	0.151	98.835	
1A4ai	Liquid	0.261	321.435	0.038	12.089	Mg	0.000	0.133	98.968	
2C2		0.001	321.435	0.024	12.089	Mg	0.000	0.113	99.081	
1A5a	Liquid	0.211	321.435	0.031	12.089	Mg	0.000	0.112	99.193	
2C6		0	321.435	0.023	12.089	Mg	0.000	0.110	99.303	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2c	Liquid	0.082	321.435	0.024	12.089	Mg	0.000	0.099	99.402	
1A2d	Peat	0.499	321.435	0.001	12.089	Mg	0.000	0.085	99.487	
1B1b		0.022	321.435	0.018	12.089	Mg	0.000	0.084	99.570	
1A4ai	Peat	0.02	321.435	0.017	12.089	Mg	0.000	0.079	99.649	
2C7a		0.374	321.435	0.003	12.089	Mg	0.000	0.053	99.702	
1A2e	Biomass	0.008	321.435	0.009	12.089	Mg	0.000	0.042	99.744	
1A3dii	Liquid	0.015	321.435	0.008	12.089	Mg	0.000	0.038	99.781	
2C3		0.066	321.435	0.010	12.089	Mg	0.000	0.034	99.816	
1A2d	Liquid	0.195	321.435	0.014	12.089	Mg	0.000	0.030	99.846	
1A2gviii	Other	0.049	321.435	0.007	12.089	Mg	0.000	0.024	99.869	
1A4ciii	Liquid	0.007	321.435	0.004	12.089	Mg	0.000	0.019	99.888	
1A2f	Liquid	0.062	321.435	0.006	12.089	Mg	0.000	0.017	99.905	
1A1b	Solid	0.048	321.435	0.005	12.089	Mg	0.000	0.013	99.918	
1A4bi	Peat	0.111	321.435	0.007	12.089	Mg	0.000	0.012	99.930	
1A2gviii	Liquid	0.113	321.435	0.002	12.089	Mg	0.000	0.011	99.941	
1A4ci	Liquid	0.081	321.435	0.001	12.089	Mg	0.000	0.009	99.950	
1A2f	Other		321.435	0.001	12.089	Mg	0.000	0.007	99.957	
1A2e	Liquid	0.083	321.435	0.002	12.089	Mg	0.000	0.006	99.963	
5C1bv		0	321.435	0.001	12.089	Mg	0.000	0.006	99.968	
1A4ci	Solid	0.035	321.435	0.000	12.089	Mg	0.000	0.005	99.973	
1A2gviii	Peat	0.003	321.435	0.001	12.089	Mg	0.000	0.005	99.978	
2B10a		0.001	321.435	0.001	12.089	Mg	0.000	0.005	99.983	
1A3biii	Diesel oil	0	321.435	0.001	12.089	Mg	0.000	0.003	99.986	
1A2a	Biomass		321.435	0.000	12.089	Mg	0.000	0.002	99.988	
1A2c	Other	0.014	321.435	0.000	12.089	Mg	0.000	0.002	99.990	
1A2f	Biomass	0	321.435	0.000	12.089	Mg	0.000	0.002	99.992	
1A2b	Liquid	0.01	321.435	0.001	12.089	Mg	0.000	0.002	99.994	
5E		0.001	321.435	0.000	12.089	Mg	0.000	0.002	99.996	
1A3bi	Diesel oil	0	321.435	0.000	12.089	Mg	0.000	0.001	99.997	
1A1a	Liquid	0.319	321.435	0.012	12.089	Mg	0.000	0.001	99.998	
1A2c	Biomass	0.003	321.435	0.000	12.089	Mg	0.000	0.001	99.999	
1A3bii	Diesel oil	0	321.435	0.000	12.089	Mg	0.000	0.001	100	
1A3biv	Diesel oil		321.435	0.000	12.089	Mg	0.000	0.000	100	

Cd

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		4.203	6.706	0.035	0.767	Mg	0.066	36.427	36.427	Yes
1A5a	Biomass	0.002	6.706	0.137	0.767	Mg	0.020	11.196	47.624	Yes
1A4bi	Biomass	0.124	6.706	0.142	0.767	Mg	0.019	10.419	58.042	Yes
1A2d	Biomass	0.317	6.706	0.148	0.767	Mg	0.017	9.170	67.213	Yes
2C6		0.85	6.706	0.009	0.767	Mg	0.013	7.215	74.427	Yes

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A1a	Biomass	0.019	6.706	0.084	0.767	Mg	0.012	6.698	81.126	Yes
1A1b	Liquid	0.047	6.706	0.069	0.767	Mg	0.009	5.197	86.323	
2C1		0.39	6.706	0.006	0.767	Mg	0.006	3.120	89.443	
1A1a	Other	0	6.706	0.022	0.767	Mg	0.003	1.787	91.230	
2G		0.049	6.706	0.024	0.767	Mg	0.003	1.530	92.759	
1A4ci	Biomass	0.02	6.706	0.019	0.767	Mg	0.003	1.381	94.140	
1A1a	Solid	0.155	6.706	0.002	0.767	Mg	0.002	1.294	95.434	
1A1a	Peat	0.023	6.706	0.014	0.767	Mg	0.002	0.901	96.335	
1A4ai	Biomass	0.006	6.706	0.010	0.767	Mg	0.001	0.745	97.080	
1A2gviii	Biomass	0.036	6.706	0.012	0.767	Mg	0.001	0.621	97.701	
1A2gvii	Liquid	0.003	6.706	0.004	0.767	Mg	0.000	0.270	97.971	
1A2e	Solid	0.032	6.706	0.000	0.767	Mg	0.000	0.268	98.239	
1A4ci	Peat	0.001	6.706	0.003	0.767	Mg	0.000	0.250	98.489	
1A2d	Solid	0.024	6.706	0.000	0.767	Mg	0.000	0.224	98.713	
1A2gviii	Other	0.028	6.706	0.001	0.767	Mg	0.000	0.179	98.892	
1A4cii	Liquid	0.003	6.706	0.002	0.767	Mg	0.000	0.161	99.054	
1A3bvi		0.002	6.706	0.002	0.767	Mg	0.000	0.125	99.179	
1A2d	Other	0	6.706	0.001	0.767	Mg	0.000	0.081	99.260	
1A2d	Peat	0.008	6.706	0.000	0.767	Mg	0.000	0.077	99.337	
1A2e	Biomass	0.001	6.706	0.001	0.767	Mg	0.000	0.076	99.413	
1A2e	Peat	0.003	6.706	0.001	0.767	Mg	0.000	0.075	99.488	
1A4aii	Liquid	0.001	6.706	0.001	0.767	Mg	0.000	0.063	99.551	
1A3dii	Liquid	0.001	6.706	0.001	0.767	Mg	0.000	0.042	99.593	
2C3		0.023	6.706	0.003	0.767	Mg	0.000	0.041	99.634	
1A4bii	Liquid	0	6.706	0.001	0.767	Mg	0.000	0.041	99.675	
5E		0.002	6.706	0.001	0.767	Mg	0.000	0.039	99.715	
1A1a	Liquid	0.005	6.706	0.000	0.767	Mg	0.000	0.032	99.747	
1A2f	Other		6.706	0.000	0.767	Mg	0.000	0.024	99.770	
1B1b		0	6.706	0.000	0.767	Mg	0.000	0.022	99.792	
1A4ciii	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.021	99.813	
1A4ai	Peat	0	6.706	0.000	0.767	Mg	0.000	0.020	99.833	
5C1bv		0	6.706	0.000	0.767	Mg	0.000	0.016	99.849	
1A3bi	Gasoline	0	6.706	0.000	0.767	Mg	0.000	0.016	99.865	
1A2c	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.014	99.879	
1A2c	Other	0.002	6.706	0.000	0.767	Mg	0.000	0.014	99.892	
1A5a	Liquid	0.003	6.706	0.000	0.767	Mg	0.000	0.013	99.906	
1A2gviii	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.010	99.916	
1A3c	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.009	99.925	
1A4bi	Peat	0.002	6.706	0.000	0.767	Mg	0.000	0.008	99.934	
1A4ci	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.008	99.942	
1A2e	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.008	99.949	
1A4ai	Liquid	0.003	6.706	0.000	0.767	Mg	0.000	0.008	99.957	
1A2f	Liquid	0.001	6.706	0.000	0.767	Mg	0.000	0.007	99.964	
1A4ci	Solid	0.001	6.706	0.000	0.767	Mg	0.000	0.006	99.970	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3biii	Diesel oil	0	6.706	0.000	0.767	Mg	0.000	0.005	99.975	
1A2a	Biomass		6.706	0.000	0.767	Mg	0.000	0.005	99.980	
1A2f	Biomass	0	6.706	0.000	0.767	Mg	0.000	0.004	99.984	
1A2c	Biomass	0	6.706	0.000	0.767	Mg	0.000	0.004	99.988	
2C2		0.003	6.706	0.000	0.767	Mg	0.000	0.003	99.991	
1A3bi	Diesel oil	0	6.706	0.000	0.767	Mg	0.000	0.002	99.993	
1A2f	Solid	0.068	6.706	0.008	0.767	Mg	0.000	0.002	99.995	
1A1b	Solid	0.001	6.706	0.000	0.767	Mg	0.000	0.002	99.996	
1A2gviii	Peat	0	6.706	0.000	0.767	Mg	0.000	0.001	99.998	
1A3bii	Diesel oil	0	6.706	0.000	0.767	Mg	0.000	0.001	99.999	
1A3biv	Gasoline	0	6.706	0.000	0.767	Mg	0.000	0.001	99.999	
1A2b	Liquid	0	6.706	0.000	0.767	Mg	0.000	0.000	99.999	
1A2d	Liquid	0.003	6.706	0.000	0.767	Mg	0.000	0.000	100	
2C7a		0	6.706	0.000	0.767	Mg	0.000	0.000	100	
1A3bii	Gasoline	0	6.706	0.000	0.767	Mg	0.000	0.000	100	
1A3biv	Diesel oil		6.706	0.000	0.767	Mg	0.000	0.000	100	

Hg

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2B10a		0.369	1.087	0.035	0.493	Mg	0.122	23.817	23.817	Yes
2C1		0.005	1.087	0.080	0.493	Mg	0.072	14.034	37.851	Yes
1A1a	Solid	0.172	1.087	0.016	0.493	Mg	0.058	11.243	49.094	Yes
1A1a	Biomass	0.004	1.087	0.053	0.493	Mg	0.047	9.206	58.300	Yes
1A2gviii	Other	0.171	1.087	0.036	0.493	Mg	0.039	7.573	65.873	Yes
1A2d	Biomass	0.089	1.087	0.066	0.493	Mg	0.024	4.621	70.494	Yes
5C1bv		0.006	1.087	0.025	0.493	Mg	0.021	4.056	74.549	Yes
1A2f	Liquid	0	1.087	0.022	0.493	Mg	0.020	3.881	78.431	Yes
1A4bi	Biomass	0.021	1.087	0.024	0.493	Mg	0.013	2.558	80.989	Yes
1A5a	Biomass	0	1.087	0.014	0.493	Mg	0.013	2.452	83.441	
1A1b	Liquid	0.01	1.087	0.014	0.493	Mg	0.009	1.788	85.229	
1A1a	Peat	0.062	1.087	0.037	0.493	Mg	0.008	1.627	86.856	
1A2d	Solid	0.018	1.087	0.000	0.493	Mg	0.008	1.492	88.348	
2C7c		0.028	1.087	0.005	0.493	Mg	0.007	1.403	89.752	
1A2a	Solid	0.017	1.087	0.000	0.493	Mg	0.007	1.339	91.091	
1A2d	Peat	0.016	1.087	0.001	0.493	Mg	0.005	1.019	92.110	
1A2f	Other		1.087	0.005	0.493	Mg	0.005	0.936	93.046	
1A1a	Other	0	1.087	0.005	0.493	Mg	0.004	0.862	93.909	
1A3biii	Diesel oil	0.005	1.087	0.007	0.493	Mg	0.004	0.859	94.768	
2C6			1.087	0.003	0.493	Mg	0.003	0.619	95.387	
1A3bi	Gasoline	0.016	1.087	0.010	0.493	Mg	0.003	0.533	95.919	
2C7a		0.007	1.087	0.000	0.493	Mg	0.003	0.530	96.449	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2e	Solid	0.006	1.087	0.000	0.493	Mg	0.002	0.456	96.905	
1A4ci	Peat	0.001	1.087	0.003	0.493	Mg	0.002	0.448	97.352	
1A3bi	Diesel oil	0.002	1.087	0.003	0.493	Mg	0.002	0.430	97.782	
1A2gviii	Biomass	0.005	1.087	0.004	0.493	Mg	0.002	0.361	98.143	
2C2		0	1.087	0.002	0.493	Mg	0.002	0.329	98.472	
1A4ci	Biomass	0.003	1.087	0.003	0.493	Mg	0.002	0.305	98.776	
1A4ai	Biomass	0.001	1.087	0.002	0.493	Mg	0.001	0.214	98.990	
1A3bii	Diesel oil	0.001	1.087	0.001	0.493	Mg	0.001	0.132	99.123	
1A3dii	Liquid	0.003	1.087	0.002	0.493	Mg	0.001	0.130	99.253	
1A4bi	Peat	0.002	1.087	0.000	0.493	Mg	0.001	0.120	99.373	
1A2gviii	Peat	0	1.087	0.001	0.493	Mg	0.001	0.101	99.474	
1A2d	Other	0	1.087	0.000	0.493	Mg	0.000	0.071	99.545	
5E		0.002	1.087	0.001	0.493	Mg	0.000	0.047	99.592	
1A2e	Biomass	0	1.087	0.000	0.493	Mg	0.000	0.047	99.639	
1A3biv	Gasoline	0	1.087	0.000	0.493	Mg	0.000	0.044	99.683	
1A3bii	Gasoline	0.001	1.087	0.000	0.493	Mg	0.000	0.041	99.724	
1A4ciii	Liquid	0.002	1.087	0.001	0.493	Mg	0.000	0.038	99.762	
1A1a	Liquid	0.001	1.087	0.000	0.493	Mg	0.000	0.037	99.799	
1A2c	Biomass	0	1.087	0.000	0.493	Mg	0.000	0.025	99.824	
1A2gviii	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.024	99.848	
1A4ai	Peat	0	1.087	0.000	0.493	Mg	0.000	0.022	99.870	
1A4ai	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.018	99.888	
1A5a	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.015	99.903	
1A1b	Solid	0	1.087	0.000	0.493	Mg	0.000	0.014	99.917	
2G		0	1.087	0.000	0.493	Mg	0.000	0.012	99.929	
1A2f	Solid	0.017	1.087	0.008	0.493	Mg	0.000	0.011	99.940	
1A2c	Other	0	1.087	0.000	0.493	Mg	0.000	0.011	99.952	
1A4ci	Solid	0	1.087	0.000	0.493	Mg	0.000	0.011	99.963	
1A2e	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.008	99.971	
1A4ci	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.008	99.979	
1A2f	Biomass	0	1.087	0.000	0.493	Mg	0.000	0.006	99.985	
1A2e	Peat	0.003	1.087	0.002	0.493	Mg	0.000	0.004	99.989	
1A2d	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.004	99.993	
1A2c	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.003	99.996	
1A3biv	Diesel oil		1.087	0.000	0.493	Mg	0.000	0.001	99.998	
1A2a	Biomass		1.087	0.000	0.493	Mg	0.000	0.001	99.999	
1B1b		0	1.087	0.000	0.493	Mg	0.000	0.001	100	
1A2b	Liquid	0	1.087	0.000	0.493	Mg	0.000	0.000	100	

As

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		28	34.817	0.063	1.632	Mg	0.036	44.823	44.823	Yes
1A1b	Liquid	0.336	34.817	0.497	1.632	Mg	0.014	17.256	62.078	Yes
1A1a	Peat	0.628	34.817	0.401	1.632	Mg	0.011	13.319	75.397	Yes
1A2d	Biomass	0.16	34.817	0.103	1.632	Mg	0.003	3.422	78.820	Yes
1A4ci	Peat	0.032	34.817	0.092	1.632	Mg	0.003	3.255	82.075	Yes
2C6		1.7	34.817	0.012	1.632	Mg	0.002	2.412	84.487	
2C7a		0.113	34.817	0.068	1.632	Mg	0.002	2.240	86.727	
1A4bi	Biomass	0.041	34.817	0.047	1.632	Mg	0.001	1.623	88.351	
1A1a	Solid	1.618	34.817	0.033	1.632	Mg	0.001	1.555	89.905	
1A3bvi		0.036	34.817	0.041	1.632	Mg	0.001	1.397	91.303	
1A2f	Solid	0.491	34.817	0.056	1.632	Mg	0.001	1.201	92.503	
1A2e	Peat	0.08	34.817	0.036	1.632	Mg	0.001	1.149	93.652	
2C1		0.411	34.817	0.050	1.632	Mg	0.001	1.110	94.762	
1A5a	Biomass	0	34.817	0.027	1.632	Mg	0.001	0.983	95.745	
1A1a	Biomass	0.004	34.817	0.025	1.632	Mg	0.001	0.876	96.621	
1A1a	Other	0	34.817	0.020	1.632	Mg	0.001	0.722	97.343	
1A2d	Solid	0.229	34.817	0.000	1.632	Mg	0.000	0.384	97.727	
1A2d	Peat	0.238	34.817	0.001	1.632	Mg	0.000	0.367	98.093	
1A4ai	Peat	0.01	34.817	0.008	1.632	Mg	0.000	0.280	98.373	
1A2e	Solid	0.228	34.817	0.004	1.632	Mg	0.000	0.241	98.614	
1A4ci	Biomass	0.007	34.817	0.006	1.632	Mg	0.000	0.215	98.830	
1A3dii	Liquid	0.028	34.817	0.005	1.632	Mg	0.000	0.127	98.957	
1A4ai	Biomass	0.002	34.817	0.003	1.632	Mg	0.000	0.114	99.071	
1B1b		0.004	34.817	0.003	1.632	Mg	0.000	0.093	99.164	
1A2gviii	Biomass	0.007	34.817	0.002	1.632	Mg	0.000	0.077	99.241	
1A4ai	Liquid	0.021	34.817	0.003	1.632	Mg	0.000	0.073	99.315	
1A5a	Liquid	0.017	34.817	0.003	1.632	Mg	0.000	0.071	99.385	
2G		0.001	34.817	0.002	1.632	Mg	0.000	0.063	99.448	
1A2c	Liquid	0.007	34.817	0.002	1.632	Mg	0.000	0.057	99.506	
2C3		0.008	34.817	0.002	1.632	Mg	0.000	0.053	99.559	
1A2d	Liquid	0.018	34.817	0.002	1.632	Mg	0.000	0.046	99.605	
1A4ciii	Liquid	0.002	34.817	0.001	1.632	Mg	0.000	0.043	99.647	
1A2d	Other	0	34.817	0.001	1.632	Mg	0.000	0.038	99.685	
1A2gviii	Peat	0.001	34.817	0.001	1.632	Mg	0.000	0.037	99.723	
2C2		0.002	34.817	0.001	1.632	Mg	0.000	0.036	99.759	
5E		0.003	34.817	0.001	1.632	Mg	0.000	0.036	99.795	
1A2f	Liquid	0.005	34.817	0.001	1.632	Mg	0.000	0.034	99.828	
1A2gviii	Other	0.001	34.817	0.001	1.632	Mg	0.000	0.028	99.857	
1A4bi	Peat	0.053	34.817	0.003	1.632	Mg	0.000	0.025	99.881	
1A1a	Liquid	0.029	34.817	0.001	1.632	Mg	0.000	0.021	99.903	
5C1bv		0	34.817	0.001	1.632	Mg	0.000	0.019	99.922	
1A1b	Solid	0.008	34.817	0.001	1.632	Mg	0.000	0.014	99.936	
1A3bi	Gasoline	0.001	34.817	0.000	1.632	Mg	0.000	0.012	99.947	
1A2gviii	Liquid	0.009	34.817	0.000	1.632	Mg	0.000	0.009	99.956	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2e	Biomass	0	34.817	0.000	1.632	Mg	0.000	0.008	99.964	
1A4ci	Solid	0.006	34.817	0.001	1.632	Mg	0.000	0.008	99.972	
1A2e	Liquid	0.007	34.817	0.000	1.632	Mg	0.000	0.008	99.980	
1A4ci	Liquid	0.006	34.817	0.000	1.632	Mg	0.000	0.008	99.987	
1A3biii	Diesel oil	0	34.817	0.000	1.632	Mg	0.000	0.005	99.992	
1A3bi	Diesel oil	0	34.817	0.000	1.632	Mg	0.000	0.002	99.994	
1A2c	Biomass	0	34.817	0.000	1.632	Mg	0.000	0.001	99.995	
1A2f	Other		34.817	0.000	1.632	Mg	0.000	0.001	99.996	
1A2b	Liquid	0.001	34.817	0.000	1.632	Mg	0.000	0.001	99.997	
1A3bii	Diesel oil	0	34.817	0.000	1.632	Mg	0.000	0.001	99.998	
1A2f	Biomass	0	34.817	0.000	1.632	Mg	0.000	0.001	99.999	
1A2c	Other	0	34.817	0.000	1.632	Mg	0.000	0.000	99.999	
1A2a	Biomass		34.817	0.000	1.632	Mg	0.000	0.000	100	
1A3biv	Gasoline	0	34.817	0.000	1.632	Mg	0.000	0.000	100	
1A3bii	Gasoline	0	34.817	0.000	1.632	Mg	0.000	0.000	100	
1A3biv	Diesel oil		34.817	0.000	1.632	Mg	0.000	0.000	100	

Cr

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		19.554	47.670	1.967	13.473	Mg	0.075	22.698	22.698	Yes
1A1b	Liquid	2.574	47.670	3.821	13.473	Mg	0.065	19.729	42.427	Yes
1A1a	Solid	6.765	47.670	0.082	13.473	Mg	0.038	11.669	54.096	Yes
1A4bi	Biomass	1.445	47.670	1.651	13.473	Mg	0.026	7.927	62.023	Yes
1A5a	Biomass	0.012	47.670	0.960	13.473	Mg	0.020	6.098	68.122	Yes
1A3bvi		1.143	47.670	1.274	13.473	Mg	0.020	6.063	74.185	Yes
1A2f	Solid	3.365	47.670	0.436	13.473	Mg	0.011	3.285	77.470	Yes
1A2e	Solid	1.752	47.670	0.017	13.473	Mg	0.010	3.050	80.520	Yes
2C2		2	47.670	0.972	13.473	Mg	0.009	2.594	83.114	
1A1a	Biomass	0.117	47.670	0.416	13.473	Mg	0.008	2.443	85.557	
1A2d	Solid	1.263	47.670	0.000	13.473	Mg	0.007	2.277	87.834	
1A2b	Solid	1.845	47.670	0.196	13.473	Mg	0.007	2.077	89.911	
1A1a	Peat	1.076	47.670	0.626	13.473	Mg	0.007	2.052	91.963	
1A4ci	Biomass	0.228	47.670	0.221	13.473	Mg	0.003	0.997	92.961	
1A2gviii	Biomass	0.817	47.670	0.078	13.473	Mg	0.003	0.976	93.936	
1A4ci	Peat	0.056	47.670	0.159	13.473	Mg	0.003	0.916	94.852	
2C7c		0.52	47.670	0.007	13.473	Mg	0.003	0.892	95.744	
1A2d	Peat	0.411	47.670	0.000	13.473	Mg	0.002	0.738	96.482	
1A1a	Other	0.001	47.670	0.097	13.473	Mg	0.002	0.615	97.097	
1A4ai	Biomass	0.068	47.670	0.114	13.473	Mg	0.002	0.605	97.703	
1A2d	Biomass	0.558	47.670	0.088	13.473	Mg	0.001	0.445	98.148	
2C7a		0.145	47.670	0.001	13.473	Mg	0.001	0.256	98.405	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2f	Other		47.670	0.040	13.473	Mg	0.001	0.253	98.658	
1A2e	Peat	0.138	47.670	0.062	13.473	Mg	0.000	0.145	98.803	
1A4bi	Peat	0.091	47.670	0.005	13.473	Mg	0.000	0.129	98.932	
2G		0.006	47.670	0.021	13.473	Mg	0.000	0.122	99.055	
1A2f	Liquid	0.002	47.670	0.018	13.473	Mg	0.000	0.109	99.164	
1A2gvii	Liquid	0.015	47.670	0.018	13.473	Mg	0.000	0.089	99.253	
1A4ci	Solid	0.044	47.670	0.000	13.473	Mg	0.000	0.078	99.331	
1B1b		0.003	47.670	0.013	13.473	Mg	0.000	0.077	99.408	
1A1b	Solid	0.06	47.670	0.006	13.473	Mg	0.000	0.071	99.479	
1A4ai	Peat	0.017	47.670	0.014	13.473	Mg	0.000	0.061	99.540	
1A3biii	Diesel oil	0.008	47.670	0.011	13.473	Mg	0.000	0.058	99.598	
1A4cii	Liquid	0.015	47.670	0.012	13.473	Mg	0.000	0.047	99.645	
1A2d	Other	0.001	47.670	0.006	13.473	Mg	0.000	0.034	99.680	
1A2c	Biomass	0	47.670	0.005	13.473	Mg	0.000	0.032	99.712	
1A2gviii	Other	0.024	47.670	0.012	13.473	Mg	0.000	0.031	99.742	
1A2e	Biomass	0.006	47.670	0.006	13.473	Mg	0.000	0.030	99.772	
1A2gviii	Liquid	0.016	47.670	0.000	13.473	Mg	0.000	0.028	99.800	
1A3bi	Diesel oil	0.003	47.670	0.005	13.473	Mg	0.000	0.027	99.828	
1A3bi	Gasoline	0.011	47.670	0.007	13.473	Mg	0.000	0.026	99.854	
1A1a	Liquid	0.015	47.670	0.001	13.473	Mg	0.000	0.022	99.876	
1A2c	Other	0.011	47.670	0.000	13.473	Mg	0.000	0.019	99.895	
1A3dii	Liquid	0.03	47.670	0.006	13.473	Mg	0.000	0.019	99.914	
1A4aii	Liquid	0.007	47.670	0.005	13.473	Mg	0.000	0.017	99.931	
1A4bii	Liquid	0.002	47.670	0.003	13.473	Mg	0.000	0.014	99.945	
1A3bii	Diesel oil	0.002	47.670	0.002	13.473	Mg	0.000	0.010	99.955	
1A4ai	Liquid	0.01	47.670	0.002	13.473	Mg	0.000	0.009	99.964	
1A2e	Liquid	0.003	47.670	0.000	13.473	Mg	0.000	0.006	99.970	
1A4ci	Liquid	0.003	47.670	0.000	13.473	Mg	0.000	0.006	99.975	
1A4ciii	Liquid	0.003	47.670	0.002	13.473	Mg	0.000	0.005	99.980	
1A5a	Liquid	0.009	47.670	0.002	13.473	Mg	0.000	0.005	99.985	
5C1bv		0	47.670	0.001	13.473	Mg	0.000	0.003	99.989	
1A2a	Biomass		47.670	0.000	13.473	Mg	0.000	0.002	99.991	
1A2f	Biomass	0	47.670	0.000	13.473	Mg	0.000	0.002	99.993	
1A2gviii	Peat	0.002	47.670	0.001	13.473	Mg	0.000	0.002	99.995	
1A3biv	Gasoline	0	47.670	0.000	13.473	Mg	0.000	0.001	99.996	
1A2d	Liquid	0.009	47.670	0.002	13.473	Mg	0.000	0.001	99.998	
5E		0.003	47.670	0.001	13.473	Mg	0.000	0.001	99.999	
1A3bii	Gasoline	0	47.670	0.000	13.473	Mg	0.000	0.001	99.999	
1A3c	Liquid	0.003	47.670	0.001	13.473	Mg	0.000	0.000	100	
1A2c	Liquid	0.003	47.670	0.001	13.473	Mg	0.000	0.000	100	
1A3biv	Diesel oil		47.670	0.000	13.473	Mg	0.000	0.000	100	
1A2b	Liquid	0.001	47.670	0.000	13.473	Mg	0.000	0.000	100	

Cu

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		80.257	156.915	0.318	37.478	Mg	0.120	40.807	40.807	Yes
1A3bvi		49.238	156.915	28.684	37.478	Mg	0.108	36.634	77.441	Yes
1A5a	Biomass	0.017	156.915	1.398	37.478	Mg	0.009	3.018	80.459	Yes
1A1a	Solid	5.471	156.915	0.037	37.478	Mg	0.008	2.748	83.207	
2C7a		4.803	156.915	0.003	37.478	Mg	0.007	2.477	85.684	
1A1b	Liquid	0.902	156.915	1.338	37.478	Mg	0.007	2.431	88.114	
2C1		5.54	156.915	0.381	37.478	Mg	0.006	2.040	90.154	
1A1a	Biomass	0.174	156.915	0.753	37.478	Mg	0.005	1.541	91.695	
1A1a	Peat	1.662	156.915	0.991	37.478	Mg	0.004	1.286	92.981	
2G		0.224	156.915	0.623	37.478	Mg	0.004	1.233	94.215	
1A2gvii	Liquid	0.503	156.915	0.618	37.478	Mg	0.003	1.079	95.294	
1A4cii	Liquid	0.499	156.915	0.392	37.478	Mg	0.002	0.591	95.885	
1A4ci	Peat	0.088	156.915	0.251	37.478	Mg	0.001	0.497	96.382	
1A4bi	Biomass	0.248	156.915	0.283	37.478	Mg	0.001	0.485	96.867	
1A2d	Solid	0.648	156.915	0.000	37.478	Mg	0.001	0.335	97.201	
1A1a	Other	0.001	156.915	0.154	37.478	Mg	0.001	0.334	97.535	
1A2f	Solid	1.28	156.915	0.152	37.478	Mg	0.001	0.334	97.869	
1A2d	Peat	0.646	156.915	0.003	37.478	Mg	0.001	0.328	98.197	
1A2e	Solid	0.613	156.915	0.006	37.478	Mg	0.001	0.303	98.500	
1A4aii	Liquid	0.227	156.915	0.156	37.478	Mg	0.001	0.221	98.721	
1A4bii	Liquid	0.075	156.915	0.093	37.478	Mg	0.000	0.163	98.885	
2B10a		0.27	156.915	0.003	37.478	Mg	0.000	0.133	99.018	
1A2gviii	Biomass	0.699	156.915	0.114	37.478	Mg	0.000	0.114	99.131	
1A2e	Peat	0.216	156.915	0.097	37.478	Mg	0.000	0.098	99.229	
1A2d	Liquid	0.022	156.915	0.049	37.478	Mg	0.000	0.095	99.324	
1A2d	Other	0.001	156.915	0.042	37.478	Mg	0.000	0.089	99.413	
1A3dii	Liquid	0.1	156.915	0.057	37.478	Mg	0.000	0.073	99.486	
1A4ci	Biomass	0.039	156.915	0.040	37.478	Mg	0.000	0.066	99.552	
1A4bi	Peat	0.143	156.915	0.009	37.478	Mg	0.000	0.055	99.607	
2C2		0.003	156.915	0.022	37.478	Mg	0.000	0.047	99.654	
1A4ciii	Liquid	0.049	156.915	0.028	37.478	Mg	0.000	0.036	99.690	
1A4ai	Biomass	0.013	156.915	0.020	37.478	Mg	0.000	0.036	99.726	
1A4ai	Peat	0.026	156.915	0.022	37.478	Mg	0.000	0.035	99.761	
1A2d	Biomass	0.813	156.915	0.210	37.478	Mg	0.000	0.034	99.796	
1B1b		0.004	156.915	0.014	37.478	Mg	0.000	0.029	99.825	
2C6			156.915	0.012	37.478	Mg	0.000	0.025	99.850	
1A3c	Liquid	0.103	156.915	0.031	37.478	Mg	0.000	0.015	99.865	
1A1a	Liquid	0.034	156.915	0.002	37.478	Mg	0.000	0.014	99.879	
1A2e	Biomass	0.009	156.915	0.009	37.478	Mg	0.000	0.014	99.893	
1A3biii	Diesel oil	0.006	156.915	0.008	37.478	Mg	0.000	0.014	99.907	
1A5a	Liquid	0.029	156.915	0.013	37.478	Mg	0.000	0.012	99.919	
1A2gviii	Liquid	0.022	156.915	0.000	37.478	Mg	0.000	0.011	99.930	
1A2c	Other	0.016	156.915	0.000	37.478	Mg	0.000	0.008	99.938	
1A4ci	Solid	0.016	156.915	0.000	37.478	Mg	0.000	0.008	99.945	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	0.008	156.915	0.005	37.478	Mg	0.000	0.007	99.952	
1A1b	Solid	0.021	156.915	0.002	37.478	Mg	0.000	0.006	99.959	
1A3bi	Diesel oil	0.002	156.915	0.003	37.478	Mg	0.000	0.006	99.965	
1A4ai	Liquid	0.026	156.915	0.004	37.478	Mg	0.000	0.005	99.971	
1A2c	Biomass	0.001	156.915	0.003	37.478	Mg	0.000	0.005	99.975	
1A2gviii	Other	0.037	156.915	0.011	37.478	Mg	0.000	0.004	99.980	
1A4ci	Liquid	0.008	156.915	0.000	37.478	Mg	0.000	0.004	99.984	
1A2e	Liquid	0.008	156.915	0.000	37.478	Mg	0.000	0.004	99.987	
1A3bii	Diesel oil	0.001	156.915	0.001	37.478	Mg	0.000	0.002	99.990	
1A2f	Other		156.915	0.001	37.478	Mg	0.000	0.002	99.992	
5E		0.008	156.915	0.003	37.478	Mg	0.000	0.002	99.993	
1A2gviii	Peat	0.003	156.915	0.001	37.478	Mg	0.000	0.001	99.994	
1A2a	Biomass		156.915	0.001	37.478	Mg	0.000	0.001	99.996	
1A2f	Biomass	0	156.915	0.001	37.478	Mg	0.000	0.001	99.997	
5C1bv		0	156.915	0.000	37.478	Mg	0.000	0.001	99.998	
1A2c	Liquid	0.008	156.915	0.002	37.478	Mg	0.000	0.001	99.999	
1A2f	Liquid	0.006	156.915	0.001	37.478	Mg	0.000	0.001	100	
1A3biv	Gasoline	0	156.915	0.000	37.478	Mg	0.000	0.000	100	
1A3bii	Gasoline	0	156.915	0.000	37.478	Mg	0.000	0.000	100	
1A2b	Liquid	0.001	156.915	0.000	37.478	Mg	0.000	0.000	100	
1A3biv	Diesel oil		156.915	0.000	37.478	Mg	0.000	0.000	100	

Ni

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C7c		31	78.449	0.419	8.793	Mg	0.039	29.245	29.245	Yes
1A4bi	Biomass	1.239	78.449	1.415	8.793	Mg	0.016	12.221	41.466	Yes
1A5a	Biomass	0.01	78.449	0.823	8.793	Mg	0.010	7.863	49.329	Yes
1A1a	Peat	1.066	78.449	0.614	8.793	Mg	0.006	4.739	54.068	Yes
1A1a	Solid	5.396	78.449	0.122	8.793	Mg	0.006	4.620	58.687	Yes
2C1		2.002	78.449	0.654	8.793	Mg	0.005	4.110	62.798	Yes
1A1a	Biomass	0.101	78.449	0.436	8.793	Mg	0.005	4.067	66.865	Yes
2C7b		5	78.449	0.912	8.793	Mg	0.004	3.366	70.231	Yes
1A1a	Liquid	3.688	78.449	0.135	8.793	Mg	0.004	2.661	72.893	Yes
1A1b	Liquid	1.875	78.449	0.004	8.793	Mg	0.003	1.979	74.871	Yes
1A2c	Liquid	0.833	78.449	0.286	8.793	Mg	0.002	1.846	76.717	Yes
1A4ci	Biomass	0.195	78.449	0.189	8.793	Mg	0.002	1.602	78.318	Yes
1A3bvi		0.164	78.449	0.183	8.793	Mg	0.002	1.575	79.893	Yes
1A4ci	Peat	0.056	78.449	0.159	8.793	Mg	0.002	1.466	81.360	Yes
1A2e	Solid	1.401	78.449	0.013	8.793	Mg	0.002	1.375	82.734	
1A2gviii	Liquid	1.361	78.449	0.020	8.793	Mg	0.002	1.269	84.003	
1A1a	Other	0.001	78.449	0.130	8.793	Mg	0.002	1.243	85.246	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2d	Liquid	2.234	78.449	0.128	8.793	Mg	0.002	1.174	86.420	
1A2b	Solid	1.115	78.449	0.008	8.793	Mg	0.001	1.121	87.541	
1A2d	Solid	1.036	78.449	0.000	8.793	Mg	0.001	1.109	88.651	
2B10a		1.052	78.449	0.010	8.793	Mg	0.001	1.035	89.686	
1A4ai	Liquid	3.134	78.449	0.454	8.793	Mg	0.001	0.985	90.671	
1A4ci	Liquid	0.971	78.449	0.014	8.793	Mg	0.001	0.906	91.577	
1A2d	Biomass	0.475	78.449	0.147	8.793	Mg	0.001	0.901	92.478	
1A4ai	Biomass	0.058	78.449	0.098	8.793	Mg	0.001	0.874	93.351	
1A2e	Liquid	1.007	78.449	0.022	8.793	Mg	0.001	0.873	94.224	
1A5a	Liquid	2.531	78.449	0.373	8.793	Mg	0.001	0.851	95.075	
2C7a		0.508	78.449	0.000	8.793	Mg	0.001	0.543	95.618	
2C2		0.017	78.449	0.054	8.793	Mg	0.001	0.497	96.115	
2G		0.036	78.449	0.051	8.793	Mg	0.001	0.454	96.568	
1A2e	Peat	0.138	78.449	0.062	8.793	Mg	0.001	0.443	97.011	
1A2gviii	Biomass	0.212	78.449	0.068	8.793	Mg	0.001	0.428	97.439	
1A2f	Solid	2.771	78.449	0.347	8.793	Mg	0.000	0.346	97.785	
1A3dii	Liquid	1.28	78.449	0.177	8.793	Mg	0.000	0.317	98.102	
1A4ciii	Liquid	0.056	78.449	0.032	8.793	Mg	0.000	0.249	98.351	
1A2gvii	Liquid	0.021	78.449	0.025	8.793	Mg	0.000	0.222	98.573	
1A2f	Liquid	0.676	78.449	0.056	8.793	Mg	0.000	0.187	98.760	
1B1b		0.002	78.449	0.016	8.793	Mg	0.000	0.152	98.912	
1A2d	Other	0.001	78.449	0.016	8.793	Mg	0.000	0.148	99.060	
1A2b	Liquid	0.124	78.449	0.029	8.793	Mg	0.000	0.144	99.204	
1A4cii	Liquid	0.021	78.449	0.016	8.793	Mg	0.000	0.133	99.337	
1A2c	Biomass	0	78.449	0.012	8.793	Mg	0.000	0.119	99.456	
1A4ai	Peat	0.017	78.449	0.014	8.793	Mg	0.000	0.119	99.574	
1A2e	Biomass	0.005	78.449	0.009	8.793	Mg	0.000	0.083	99.657	
1A2gviii	Other	0.021	78.449	0.009	8.793	Mg	0.000	0.063	99.720	
1A4aii	Liquid	0.009	78.449	0.006	8.793	Mg	0.000	0.052	99.772	
1A4bi	Peat	0.091	78.449	0.005	8.793	Mg	0.000	0.045	99.817	
1A1b	Solid	0.003	78.449	0.005	8.793	Mg	0.000	0.041	99.858	
1A4ci	Solid	0.035	78.449	0.000	8.793	Mg	0.000	0.035	99.893	
1A4bii	Liquid	0.003	78.449	0.004	8.793	Mg	0.000	0.033	99.927	
1A3bi	Gasoline	0.004	78.449	0.003	8.793	Mg	0.000	0.021	99.948	
1A2f	Other		78.449	0.002	8.793	Mg	0.000	0.015	99.962	
1A2c	Other	0.009	78.449	0.000	8.793	Mg	0.000	0.010	99.972	
1A3c	Liquid	0.004	78.449	0.001	8.793	Mg	0.000	0.008	99.980	
5C1bv		0	78.449	0.001	8.793	Mg	0.000	0.006	99.986	
1A2gviii	Peat	0.002	78.449	0.001	8.793	Mg	0.000	0.004	99.990	
1A2a	Biomass		78.449	0.000	8.793	Mg	0.000	0.003	99.993	
1A2f	Biomass	0	78.449	0.000	8.793	Mg	0.000	0.003	99.995	
1A3biii	Diesel oil	0	78.449	0.000	8.793	Mg	0.000	0.002	99.998	
1A3bi	Diesel oil	0	78.449	0.000	8.793	Mg	0.000	0.001	99.999	
1A3biv	Gasoline	0	78.449	0.000	8.793	Mg	0.000	0.001	99.999	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bii	Diesel oil	0	78.449	0.000	8.793	Mg	0.000	0.000	100	
1A3bii	Gasoline	0	78.449	0.000	8.793	Mg	0.000	0.000	100	
1A3biv	Diesel oil		78.449	0.000	8.793	Mg	0.000	0.000	100	

Zn

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		303.559	682.850	1.682	119.511	Mg	0.075	27.387	27.387	Yes
1A4bi	Biomass	28.903	682.850	33.028	119.511	Mg	0.041	14.889	42.277	Yes
2C7c		160.391	682.850	1.034	119.511	Mg	0.040	14.393	56.670	Yes
1A5a	Biomass	0.238	682.850	19.192	119.511	Mg	0.028	10.195	66.864	Yes
1A3bvi		18.42	682.850	18.206	119.511	Mg	0.022	7.976	74.840	Yes
1A1a	Biomass	2.327	682.850	10.356	119.511	Mg	0.015	5.296	80.137	Yes
2C6		90.174	682.850	8.012	119.511	Mg	0.011	4.136	84.273	
1A1b	Liquid	3.869	682.850	5.735	119.511	Mg	0.007	2.692	86.965	
1A1a	Solid	28.018	682.850	0.386	119.511	Mg	0.007	2.405	89.370	
1A4ci	Biomass	4.55	682.850	4.414	119.511	Mg	0.005	1.926	91.296	
1A1a	Other	0.016	682.850	3.493	119.511	Mg	0.005	1.858	93.154	
1A4ai	Biomass	1.355	682.850	2.281	119.511	Mg	0.003	1.088	94.242	
1A2gviii	Other	0.221	682.850	1.178	119.511	Mg	0.002	0.606	94.848	
1A2gviii	Biomass	4.949	682.850	2.000	119.511	Mg	0.002	0.604	95.452	
1A1a	Peat	2.706	682.850	1.527	119.511	Mg	0.002	0.561	96.013	
1A2d	Biomass	10.754	682.850	0.896	119.511	Mg	0.001	0.525	96.538	
2C2		0.1	682.850	0.904	119.511	Mg	0.001	0.472	97.010	
1A2f	Other		682.850	0.720	119.511	Mg	0.001	0.383	97.393	
1A2d	Solid	3.342	682.850	0.001	119.511	Mg	0.001	0.311	97.704	
1A2f	Liquid	0.327	682.850	0.638	119.511	Mg	0.001	0.309	98.013	
2C7a		2.563	682.850	0.006	119.511	Mg	0.001	0.236	98.248	
1A2e	Solid	2.627	682.850	0.044	119.511	Mg	0.001	0.221	98.470	
1A4ci	Peat	0.132	682.850	0.376	119.511	Mg	0.001	0.188	98.657	
2G		0.127	682.850	0.360	119.511	Mg	0.000	0.180	98.837	
1A2gvii	Liquid	0.296	682.850	0.364	119.511	Mg	0.000	0.166	99.003	
1A2d	Other	0.016	682.850	0.303	119.511	Mg	0.000	0.160	99.163	
2B10a		0.01	682.850	0.250	119.511	Mg	0.000	0.132	99.295	
1A4cii	Liquid	0.293	682.850	0.231	119.511	Mg	0.000	0.096	99.391	
1A2d	Peat	0.999	682.850	0.007	119.511	Mg	0.000	0.089	99.480	
1A2f	Solid	5.497	682.850	0.831	119.511	Mg	0.000	0.070	99.550	
1A2d	Liquid	0.11	682.850	0.130	119.511	Mg	0.000	0.059	99.609	
1A2e	Peat	0.328	682.850	0.147	119.511	Mg	0.000	0.048	99.657	
1A2e	Biomass	0.126	682.850	0.107	119.511	Mg	0.000	0.045	99.702	
1A4aii	Liquid	0.134	682.850	0.092	119.511	Mg	0.000	0.037	99.739	
1A2f	Biomass	0.003	682.850	0.058	119.511	Mg	0.000	0.031	99.769	

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1A3dii	Liquid	0.117	682.850	0.076	119.511	Mg	0.000	0.030	99.799	
1A4bii	Liquid	0.044	682.850	0.055	119.511	Mg	0.000	0.025	99.824	
1A2c	Other	0.215	682.850	0.001	119.511	Mg	0.000	0.020	99.844	
1A3bi	Gasoline	0.059	682.850	0.038	119.511	Mg	0.000	0.015	99.858	
1A4ciii	Liquid	0.067	682.850	0.039	119.511	Mg	0.000	0.014	99.873	
1B1b		0.16	682.850	0.055	119.511	Mg	0.000	0.014	99.887	
1A4ai	Peat	0.04	682.850	0.034	119.511	Mg	0.000	0.014	99.901	
1A4bi	Peat	0.215	682.850	0.013	119.511	Mg	0.000	0.013	99.915	
1A1a	Liquid	0.17	682.850	0.007	119.511	Mg	0.000	0.012	99.926	
1A3biii	Diesel oil	0.018	682.850	0.024	119.511	Mg	0.000	0.011	99.938	
2C3		0.127	682.850	0.042	119.511	Mg	0.000	0.011	99.948	
1A3bi	Diesel oil	0.006	682.850	0.011	119.511	Mg	0.000	0.005	99.954	
1A3c	Liquid	0.06	682.850	0.018	119.511	Mg	0.000	0.004	99.958	
1A2a	Biomass		682.850	0.008	119.511	Mg	0.000	0.004	99.962	
1A2gviii	Liquid	0.055	682.850	0.002	119.511	Mg	0.000	0.004	99.966	
1A4ci	Solid	0.072	682.850	0.006	119.511	Mg	0.000	0.004	99.970	
1A1b	Solid	0.09	682.850	0.009	119.511	Mg	0.000	0.004	99.973	
1A5a	Liquid	0.111	682.850	0.026	119.511	Mg	0.000	0.004	99.977	
1A4ci	Liquid	0.039	682.850	0.001	119.511	Mg	0.000	0.003	99.980	
1A2e	Liquid	0.04	682.850	0.001	119.511	Mg	0.000	0.003	99.984	
5C1bv		0.001	682.850	0.006	119.511	Mg	0.000	0.003	99.987	
1A2c	Biomass	0.014	682.850	0.008	119.511	Mg	0.000	0.003	99.990	
1A2gviii	Peat	0.005	682.850	0.006	119.511	Mg	0.000	0.003	99.993	
1A2c	Liquid	0.04	682.850	0.011	119.511	Mg	0.000	0.002	99.995	
1A3bii	Diesel oil	0.005	682.850	0.005	119.511	Mg	0.000	0.002	99.997	
1A4ai	Liquid	0.125	682.850	0.018	119.511	Mg	0.000	0.002	99.999	
1A3biv	Gasoline	0	682.850	0.001	119.511	Mg	0.000	0.001	100	
1A2b	Liquid	0.005	682.850	0.000	119.511	Mg	0.000	0.000	100	
1A3bii	Gasoline	0.002	682.850	0.000	119.511	Mg	0.000	0.000	100	
1A3biv	Diesel oil		682.850	0.000	119.511	Mg	0.000	0.000	100	

PCDD/F

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2C1		4.552	16.604	0.239	8.651	g I-Teq	0.128	21.556	21.556	Yes
1A1a	Biomass	0.151	16.604	1.595	8.651	g I-Teq	0.091	15.324	36.880	Yes
2B10a		3	16.604	0.190	8.651	g I-Teq	0.083	13.877	50.757	Yes
1A1a	Other	0.002	16.604	0.821	8.651	g I-Teq	0.049	8.286	59.043	Yes
5E		3.498	16.604	1.214	8.651	g I-Teq	0.037	6.155	65.198	Yes
1A5a	Biomass	0.007	16.604	0.576	8.651	g I-Teq	0.034	5.781	70.979	Yes
1A4bi	Biomass	0.867	16.604	0.991	8.651	g I-Teq	0.032	5.448	76.427	Yes
1A2d	Biomass	0.808	16.604	0.844	8.651	g I-Teq	0.025	4.278	80.705	Yes

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3bi	Gasoline	0.962	16.604	0.178	8.651	g I-Teq	0.020	3.273	83.977	
2C7a		0.001	16.604	0.209	8.651	g I-Teq	0.013	2.103	86.080	
1A3bi	Diesel oil	0.008	16.604	0.199	8.651	g I-Teq	0.012	1.965	88.046	
1A1a	Liquid	0.007	16.604	0.197	8.651	g I-Teq	0.012	1.957	90.002	
1A1a	Solid	0.411	16.604	0.075	8.651	g I-Teq	0.008	1.406	91.408	
1A3bii	Diesel oil	0.004	16.604	0.121	8.651	g I-Teq	0.007	1.203	92.612	
1A1a	Peat	0.747	16.604	0.306	8.651	g I-Teq	0.005	0.844	93.455	
1A2d	Other	0.009	16.604	0.086	8.651	g I-Teq	0.005	0.823	94.279	
1A3biii	Diesel oil	0.217	16.604	0.039	8.651	g I-Teq	0.004	0.743	95.021	
1A4ci	Biomass	0.137	16.604	0.133	8.651	g I-Teq	0.004	0.626	95.647	
1A2gviii	Other	0.192	16.604	0.051	8.651	g I-Teq	0.003	0.494	96.142	
1A4ai	Biomass	0.041	16.604	0.068	8.651	g I-Teq	0.003	0.478	96.620	
2C6		0.038	16.604	0.064	8.651	g I-Teq	0.003	0.446	97.066	
1A2gviii	Biomass	0.199	16.604	0.133	8.651	g I-Teq	0.002	0.298	97.364	
1A2d	Peat	0.149	16.604	0.050	8.651	g I-Teq	0.002	0.286	97.650	
1A2d	Solid	0.045	16.604	0.000	8.651	g I-Teq	0.001	0.232	97.882	
2C3		0.041	16.604	0.042	8.651	g I-Teq	0.001	0.211	98.094	
1A1b	Liquid	0.019	16.604	0.027	8.651	g I-Teq	0.001	0.173	98.267	
1A4ci	Peat	0.007	16.604	0.020	8.651	g I-Teq	0.001	0.165	98.432	
1A3bii	Gasoline	0.024	16.604	0.001	8.651	g I-Teq	0.001	0.121	98.553	
2A1		0.029	16.604	0.004	8.651	g I-Teq	0.001	0.115	98.668	
1A2f	Solid	0.024	16.604	0.002	8.651	g I-Teq	0.001	0.107	98.774	
1A2e	Biomass	0.007	16.604	0.014	8.651	g I-Teq	0.001	0.106	98.880	
1A2a	Solid	0.024	16.604	0.003	8.651	g I-Teq	0.001	0.098	98.978	
2L		0.029	16.604	0.006	8.651	g I-Teq	0.001	0.097	99.075	
1A4bi	Liquid	0.019	16.604	0.002	8.651	g I-Teq	0.001	0.086	99.160	
1A2c	Other	0.014	16.604	0.000	8.651	g I-Teq	0.000	0.069	99.229	
1A2c	Biomass	0.012	16.604	0.001	8.651	g I-Teq	0.000	0.057	99.286	
1A4bi	Peat	0.011	16.604	0.001	8.651	g I-Teq	0.000	0.053	99.339	
2A2		0.038	16.604	0.025	8.651	g I-Teq	0.000	0.048	99.386	
1A1a	Gaseous	0.02	16.604	0.006	8.651	g I-Teq	0.000	0.046	99.433	
1A2d	Gaseous	0.016	16.604	0.012	8.651	g I-Teq	0.000	0.044	99.477	
1A2gviii	Peat	0.004	16.604	0.006	8.651	g I-Teq	0.000	0.043	99.520	
1A3biv	Gasoline	0.014	16.604	0.011	8.651	g I-Teq	0.000	0.039	99.559	
1A3dii	Liquid	0.026	16.604	0.010	8.651	g I-Teq	0.000	0.039	99.598	
1B1b		0.014	16.604	0.004	8.651	g I-Teq	0.000	0.036	99.634	
1A2f	Other		16.604	0.003	8.651	g I-Teq	0.000	0.034	99.668	
1A5a	Gaseous	0.001	16.604	0.004	8.651	g I-Teq	0.000	0.031	99.699	
1A2d	Liquid	0.005	16.604	0.005	8.651	g I-Teq	0.000	0.027	99.726	
1A2e	Solid	0.007	16.604	0.001	8.651	g I-Teq	0.000	0.026	99.753	
2A3		0.005	16.604	0.000	8.651	g I-Teq	0.000	0.025	99.777	
1A2a	Gaseous	0.001	16.604	0.003	8.651	g I-Teq	0.000	0.024	99.802	
1A2f	Biomass	0	16.604	0.002	8.651	g I-Teq	0.000	0.024	99.826	
1A2c	Liquid	0.005	16.604	0.005	8.651	g I-Teq	0.000	0.022	99.848	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A3biv	Diesel oil		16.604	0.002	8.651	g I-Teq	0.000	0.020	99.868	
1A4ai	Liquid	0.012	16.604	0.005	8.651	g I-Teq	0.000	0.013	99.881	
1A2e	Peat	0.028	16.604	0.013	8.651	g I-Teq	0.000	0.013	99.894	
1A2c	Gaseous	0.001	16.604	0.002	8.651	g I-Teq	0.000	0.013	99.906	
2D3b		0.016	16.604	0.007	8.651	g I-Teq	0.000	0.012	99.919	
5C1bv		0	16.604	0.001	8.651	g I-Teq	0.000	0.010	99.928	
1A1b	Gaseous	0.004	16.604	0.003	8.651	g I-Teq	0.000	0.009	99.937	
1A4ai	Peat	0.002	16.604	0.002	8.651	g I-Teq	0.000	0.007	99.944	
1A2a	Liquid	0.001	16.604	0.000	8.651	g I-Teq	0.000	0.007	99.950	
1A2gviii	Gaseous	0	16.604	0.001	8.651	g I-Teq	0.000	0.006	99.957	
1A2f	Liquid	0.002	16.604	0.001	8.651	g I-Teq	0.000	0.006	99.962	
1A2e	Liquid	0.002	16.604	0.000	8.651	g I-Teq	0.000	0.005	99.968	
1A4ciii	Liquid	0.007	16.604	0.004	8.651	g I-Teq	0.000	0.004	99.972	
1A2gviii	Liquid	0.003	16.604	0.001	8.651	g I-Teq	0.000	0.004	99.976	
1A4ci	Liquid	0.004	16.604	0.002	8.651	g I-Teq	0.000	0.004	99.980	
1A1b	Biomass		16.604	0.000	8.651	g I-Teq	0.000	0.004	99.984	
1A5a	Liquid	0.009	16.604	0.005	8.651	g I-Teq	0.000	0.003	99.987	
1A2a	Biomass		16.604	0.000	8.651	g I-Teq	0.000	0.002	99.990	
1A2b	Solid	0.002	16.604	0.001	8.651	g I-Teq	0.000	0.002	99.992	
1A2b	Liquid	0	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.993	
1A4ci	Gaseous	0	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.994	
1A4ai	Gaseous	0	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.996	
1A1b	Solid	0	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.997	
1A2f	Gaseous	0.001	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.997	
1A2e	Gaseous	0	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.998	
2G		0.001	16.604	0.000	8.651	g I-Teq	0.000	0.001	99.999	
1A2b	Gaseous		16.604	0.000	8.651	g I-Teq	0.000	0.000	99.999	
1A4ci	Solid	0.001	16.604	0.000	8.651	g I-Teq	0.000	0.000	100	
1A4bi	Gaseous	0	16.604	0.000	8.651	g I-Teq	0.000	0.000	100	
1A4bi	Other	0	16.604	0.000	8.651	g I-Teq	0.000	0.000	100	
1A3ei	Gaseous	0	16.604	0.000	8.651	g I-Teq	0.000	0.000	100	

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NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4bi	Biomass	17.153	18.176	17.972	19.315	Mg	0.014	16.288	16.288	Yes
1A1a	Biomass	0.019	18.176	0.257	19.315	Mg	0.013	15.094	31.381	Yes
1A1a	Other	0	18.176	0.202	19.315	Mg	0.011	12.844	44.225	Yes
1A2gviii	Other	0.017	18.176	0.210	19.315	Mg	0.011	12.211	56.436	Yes
2C1		0.132	18.176	0.011	19.315	Mg	0.007	8.189	64.624	Yes
1A4bi	Liquid	0.109	18.176	0.008	19.315	Mg	0.006	6.818	71.442	Yes
1A5a	Biomass	0.001	18.176	0.074	19.315	Mg	0.004	4.650	76.093	Yes

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4ai	Liquid	0.074	18.176	0.029	19.315	Mg	0.003	3.137	79.230	Yes
1A1a	Liquid	0.05	18.176	0.014	19.315	Mg	0.002	2.497	81.726	Yes
1A5a	Liquid	0.045	18.176	0.014	19.315	Mg	0.002	2.142	83.869	
1A3bi	Diesel oil	0.041	18.176	0.076	19.315	Mg	0.002	2.009	85.877	
1A1a	Peat	0.043	18.176	0.020	19.315	Mg	0.001	1.632	87.510	
1A2d	Liquid	0.037	18.176	0.017	19.315	Mg	0.001	1.424	88.934	
1A3bi	Gasoline	0.046	18.176	0.029	19.315	Mg	0.001	1.214	90.148	
1A4ci	Liquid	0.025	18.176	0.009	19.315	Mg	0.001	1.086	91.234	
1A3biii	Diesel oil	0.053	18.176	0.073	19.315	Mg	0.001	1.022	92.257	
1A2d	Biomass	0.105	18.176	0.125	19.315	Mg	0.001	0.818	93.075	
1A2gviii	Liquid	0.015	18.176	0.005	19.315	Mg	0.001	0.729	93.804	
2D3i		0.02	18.176	0.010	19.315	Mg	0.001	0.680	94.483	
1A2e	Liquid	0.01	18.176	0.001	19.315	Mg	0.001	0.649	95.132	
1A2d	Other	0.001	18.176	0.009	19.315	Mg	0.000	0.518	95.650	
1A2d	Peat	0.009	18.176	0.002	19.315	Mg	0.000	0.431	96.081	
1A2c	Liquid	0.009	18.176	0.003	19.315	Mg	0.000	0.429	96.510	
1A4cii	Liquid	0.023	18.176	0.018	19.315	Mg	0.000	0.412	96.922	
1A2f	Liquid	0.008	18.176	0.003	19.315	Mg	0.000	0.372	97.294	
1A2a	Liquid	0.005	18.176	0.000	19.315	Mg	0.000	0.318	97.612	
1A4aii	Liquid	0.011	18.176	0.007	19.315	Mg	0.000	0.254	97.866	
1A2gvii	Liquid	0.024	18.176	0.029	19.315	Mg	0.000	0.251	98.117	
1A3c	Liquid	0.005	18.176	0.001	19.315	Mg	0.000	0.233	98.351	
1A2f	Other		18.176	0.003	19.315	Mg	0.000	0.204	98.555	
1A3dii	Liquid	0.004	18.176	0.002	19.315	Mg	0.000	0.142	98.697	
1A2gviii	Biomass	0.027	18.176	0.026	19.315	Mg	0.000	0.120	98.818	
1A2c	Biomass	0.002	18.176	0.001	19.315	Mg	0.000	0.102	98.919	
1A3bii	Diesel oil	0.024	18.176	0.024	19.315	Mg	0.000	0.099	99.018	
1A3bii	Gasoline	0.001	18.176	0.000	19.315	Mg	0.000	0.095	99.113	
2G		0.002	18.176	0.001	19.315	Mg	0.000	0.083	99.196	
1A2b	Liquid	0.003	18.176	0.002	19.315	Mg	0.000	0.082	99.278	
1A1a	Solid	0.001	18.176	0.000	19.315	Mg	0.000	0.070	99.348	
5C1bv		0	18.176	0.001	19.315	Mg	0.000	0.067	99.415	
1A1b	Liquid	0.006	18.176	0.007	19.315	Mg	0.000	0.065	99.480	
1A2e	Peat	0.002	18.176	0.001	19.315	Mg	0.000	0.059	99.539	
1A2e	Biomass	0.001	18.176	0.002	19.315	Mg	0.000	0.058	99.596	
1A3biv	Gasoline	0.001	18.176	0.001	19.315	Mg	0.000	0.047	99.644	
1A4ci	Peat	0	18.176	0.001	19.315	Mg	0.000	0.045	99.689	
1A4bii	Liquid	0.004	18.176	0.004	19.315	Mg	0.000	0.042	99.731	
1A4bi	Peat	0.001	18.176	0.000	19.315	Mg	0.000	0.041	99.772	
1A2c	Other	0.001	18.176	0.000	19.315	Mg	0.000	0.040	99.812	
1A4ciii	Liquid	0.001	18.176	0.001	19.315	Mg	0.000	0.039	99.852	
1A4ai	Biomass	0.001	18.176	0.002	19.315	Mg	0.000	0.035	99.886	
1A2gviii	Peat	0	18.176	0.001	19.315	Mg	0.000	0.025	99.911	
1A2f	Biomass	0	18.176	0.000	19.315	Mg	0.000	0.019	99.930	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1B1b		0	18.176	0.000	19.315	Mg	0.000	0.017	99.947	
1A3biv	Diesel oil		18.176	0.000	19.315	Mg	0.000	0.009	99.957	
1A2d	Solid	0	18.176	0.000	19.315	Mg	0.000	0.009	99.966	
1A4bi	Other	0	18.176	0.000	19.315	Mg	0.000	0.008	99.974	
2C2			18.176	0.000	19.315	Mg	0.000	0.007	99.981	
1A4ci	Biomass	0.003	18.176	0.003	19.315	Mg	0.000	0.007	99.988	
1A2f	Solid	0	18.176	0.000	19.315	Mg	0.000	0.004	99.992	
1A2a	Biomass		18.176	0.000	19.315	Mg	0.000	0.002	99.994	
1A4ai	Peat	0	18.176	0.000	19.315	Mg	0.000	0.002	99.996	
1A2b	Solid	0	18.176	0.000	19.315	Mg	0.000	0.001	99.997	
1A2e	Solid	0	18.176	0.000	19.315	Mg	0.000	0.001	99.998	
1A2a	Solid	0	18.176	0.000	19.315	Mg	0.000	0.001	99.999	
2A1		0	18.176	0.000	19.315	Mg	0.000	0.000	100	
1A4ci	Solid	0	18.176	0.000	19.315	Mg	0.000	0.000	100	
1A1b	Solid	0	18.176	0.000	19.315	Mg	0.000	0.000	100	

HCB

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
2B10a		29	35.677	8.800	16.240	kg	0.123	49.393	49.393	Yes
2C7a		5.514	35.677	6.108	16.240	kg	0.101	40.385	89.778	Yes
1A1a	Biomass	0.037	35.677	0.472	16.240	kg	0.013	5.111	94.889	
1A4bi	Biomass	0.206	35.677	0.236	16.240	kg	0.004	1.593	96.482	
1A3biii	Diesel oil	0.059	35.677	0.081	16.240	kg	0.002	0.606	97.088	
2C1		0.096	35.677	0.013	16.240	kg	0.001	0.347	97.435	
1A5a	Biomass		35.677	0.027	16.240	kg	0.001	0.308	97.743	
1A3bi	Diesel oil	0.02	35.677	0.036	16.240	kg	0.001	0.303	98.046	
1A2d	Biomass	0.191	35.677	0.113	16.240	kg	0.001	0.291	98.337	
1A2gviii	Biomass	0.049	35.677	0.046	16.240	kg	0.001	0.261	98.598	
1A3bi	Gasoline	0.108	35.677	0.069	16.240	kg	0.001	0.227	98.825	
1A2gviii		0.143	35.677	0.085	16.240	kg	0.001	0.220	99.045	
2C3		0.033	35.677	0.034	16.240	kg	0.001	0.212	99.257	
1A4ci	Biomass	0.033	35.677	0.031	16.240	kg	0.000	0.182	99.439	
1A4ai	Biomass	0.01	35.677	0.016	16.240	kg	0.000	0.134	99.574	
1A3bii	Diesel oil	0.015	35.677	0.015	16.240	kg	0.000	0.093	99.667	
5C1bv		0.001	35.677	0.006	16.240	kg	0.000	0.060	99.727	
1A2d	Solid	0.007	35.677	0.000	16.240	kg	0.000	0.035	99.762	
3Df		0.057	35.677	0.029	16.240	kg	0.000	0.028	99.790	
1A2e	Biomass	0.002	35.677	0.003	16.240	kg	0.000	0.028	99.818	
1A3biv	Gasoline	0.001	35.677	0.002	16.240	kg	0.000	0.019	99.837	
1A1a	Other		35.677	0.002	16.240	kg	0.000	0.018	99.855	
1A3bii	Gasoline	0.004	35.677	0.000	16.240	kg	0.000	0.018	99.873	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A4ci	Solid		35.677	0.001	16.240	kg	0.000	0.015	99.887	
1A2f	Solid	0.004	35.677	0.000	16.240	kg	0.000	0.014	99.902	
1A2c	Biomass	0.003	35.677	0.000	16.240	kg	0.000	0.013	99.915	
1A2a	Solid	0.003	35.677	0.000	16.240	kg	0.000	0.011	99.926	
1A2b	Solid	0.002	35.677	0.000	16.240	kg	0.000	0.009	99.935	
1A3bi	Gaseous		35.677	0.001	16.240	kg	0.000	0.008	99.943	
1A3dii	Liquid	0.01	35.677	0.005	16.240	kg	0.000	0.008	99.951	
1A3biii	Gaseous		35.677	0.001	16.240	kg	0.000	0.008	99.959	
1A2gviii	Other		35.677	0.001	16.240	kg	0.000	0.008	99.967	
1A2f	Biomass	0	35.677	0.001	16.240	kg	0.000	0.006	99.973	
1A4ciii	Liquid	0.004	35.677	0.003	16.240	kg	0.000	0.006	99.980	
1A5a	Liquid	0.001	35.677	0.001	16.240	kg	0.000	0.005	99.984	
2D3i		0.004	35.677	0.002	16.240	kg	0.000	0.005	99.989	
1A2e	Solid	0.001	35.677	0.000	16.240	kg	0.000	0.004	99.993	
1A2d	Other		35.677	0.000	16.240	kg	0.000	0.003	99.996	
1A1a	Solid	0.001	35.677	0.000	16.240	kg	0.000	0.002	99.998	
1A3bii	Gaseous		35.677	0.000	16.240	kg	0.000	0.001	99.999	
1A3biv	Diesel oil		35.677	0.000	16.240	kg	0.000	0.001	99.999	
1A2a	Biomass		35.677	0.000	16.240	kg	0.000	0.001	100	

PCB

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1B1b		1.753	25.579	2.920	14.315	kg	0.076	32.892	32.892	Yes
1A2d	Solid	1.907	25.579	0.018	14.315	kg	0.041	17.796	50.688	Yes
2C1		13.464	25.579	8.495	14.315	kg	0.038	16.279	66.967	Yes
1A2f	Solid	1.037	25.579	0.121	14.315	kg	0.018	7.789	74.756	Yes
1A2a	Solid	0.784	25.579	0.082	14.315	kg	0.014	6.057	80.814	Yes
1A1a	Biomass	0.026	25.579	0.330	14.315	kg	0.012	5.361	86.175	
2A1		3.298	25.579	2.131	14.315	kg	0.011	4.828	91.003	
1A2b	Solid	0.551	25.579	0.033	14.315	kg	0.011	4.662	95.666	
1A2e	Solid	0.298	25.579	0.045	14.315	kg	0.005	2.064	97.730	
1A2gviii		0.135	25.579	0.017	14.315	kg	0.002	1.000	98.730	
2C3		0.083	25.579	0.088	14.315	kg	0.002	0.705	99.436	
5C1bv		0.003	25.579	0.016	14.315	kg	0.001	0.242	99.678	
1A3dii	Liquid	0.024	25.579	0.004	14.315	kg	0.000	0.154	99.832	
2C7c		0.002	25.579	0.005	14.315	kg	0.000	0.071	99.902	
1A4bi	Liquid	0.003	25.579	0.000	14.315	kg	0.000	0.027	99.929	
1A4bi	Biomass	0.002	25.579	0.003	14.315	kg	0.000	0.025	99.954	
1A1a	Other		25.579	0.001	14.315	kg	0.000	0.019	99.972	
1A4ai	Liquid	0.002	25.579	0.001	14.315	kg	0.000	0.005	99.977	
1A4ci	Liquid	0.001	25.579	0.000	14.315	kg	0.000	0.004	99.982	

NFR Code	Fuel	Base year emission of the NFR category	Base year total emission	Year 2023 emission of the NFR category	Year 2023 total emission	Unit	Trend assessment	Contribution to trend, %	Cumulative total, %	Key source
1A2gviii	Biomass	0.001	25.579	0.001	14.315	kg	0.000	0.004	99.985	
1A4ci	Biomass	0	25.579	0.000	14.315	kg	0.000	0.003	99.988	
1A4ai	Biomass	0	25.579	0.000	14.315	kg	0.000	0.002	99.990	
1A1a	Solid	0	25.579	0.000	14.315	kg	0.000	0.002	99.992	
1A3bi	Gasoline	0	25.579	0.000	14.315	kg	0.000	0.001	99.993	
1A2d	Biomass	0.002	25.579	0.001	14.315	kg	0.000	0.001	99.995	
1A4ci	Peat	0	25.579	0.000	14.315	kg	0.000	0.001	99.996	
1A4ciii	Liquid	0.002	25.579	0.001	14.315	kg	0.000	0.001	99.997	
1A3bi	Diesel oil	0	25.579	0.000	14.315	kg	0.000	0.001	99.997	
1A2e	Biomass	0	25.579	0.000	14.315	kg	0.000	0.000	99.998	
1A4bi	Peat	0	25.579	0.000	14.315	kg	0.000	0.000	99.998	
1A3bii	Diesel oil	0	25.579	0.000	14.315	kg	0.000	0.000	99.998	
1A2c	Biomass	0	25.579	0.000	14.315	kg	0.000	0.000	99.999	
1A3bii	Gasoline	0	25.579	0.000	14.315	kg	0.000	0.000	99.999	
1A3biii	Diesel oil	0	25.579	0.000	14.315	kg	0.000	0.000	99.999	
1A4ci	Solid		25.579	0.000	14.315	kg	0.000	0.000	99.999	
1A2gviii	Other		25.579	0.000	14.315	kg	0.000	0.000	99.999	
2C7a		0.001	25.579	0.000	14.315	kg	0.000	0.000	100	
1A2f	Biomass	0	25.579	0.000	14.315	kg	0.000	0.000	100	
2A2		0	25.579	0.000	14.315	kg	0.000	0.000	100	
1A3biv	Gasoline	0	25.579	0.000	14.315	kg	0.000	0.000	100	
1A2d	Other		25.579	0.000	14.315	kg	0.000	0.000	100	
1A4ai	Peat	0	25.579	0.000	14.315	kg	0.000	0.000	100	
1A2a	Biomass		25.579	0.000	14.315	kg	0.000	0.000	100	
1A3biv	Diesel oil		25.579	0.000	14.315	kg	0.000	0.000	100	

Energy Balance

Energy balances are available in Finland's PX-Web databases from http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin_ene_ehk/stat-fin_ehk_pxt_002.px/?rxid=5c37441a-ed98-40ad-bfb5-5f29f4898d81

One can select the years, fuels and quantity (TJ), Twh, Share (%) and Annual change (%) and make searches to create output files and graphs as presented below.

002 -- Total energy consumption by source (detailed)

Select variable
About table

Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value

Year *	Source *	Tiedot *
<input checked="" type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/>	<input checked="" type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/>	<input checked="" type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/>
Total 48 Selected 0	Total 26 Selected 0	Total 4 Selected 0
2012 2013 2014 2015 2016 2017	Diesel fuel Refinery gases etc. Town gas Light fuel oil Recycled fuels Recycled oil	Quantity, TJ TWh Share % Annual change %
Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row	Search <input type="text"/> <input type="button" value="▶"/> <input type="checkbox"/> Beginning of row

Number of selected data cells are: 0 (maximum number allowed is 1,000,000)

Table - Layout 2
 Chart - Line
 Chart - Bar
 Table - Layout 1
 Tab delimited with heading
 Semicolon delimited with heading
 Excel (xlsx) with code and text column
 Excel workbook (xml) with code and text
 Excel workbook (xml)
 Excel (xlsx)
 Comma delimited with heading
 PX-file
 Space delimited with heading

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Energy balance data available from Finland's PX-Web databases