

## **COMPLIANCE WITH REPORTING OBLIGATIONS**

### **Note by the secretariat**

This document contains information referred to in the twenty-fourth report of the Implementation Committee (ECE/EB.AIR/2021/3). This information provided the basis for the Committee's evaluation of compliance by Parties with their obligation to report emission data.

The document presents the status of emission data reporting as of 8 September 2021 and contains eight tables reflecting reporting under the seven Protocols in force: the 1985 Sulphur Protocol, the Protocol on Nitrogen Oxides (Protocol on NO<sub>x</sub>), the Protocol on Volatile Organic Compounds (Protocol on VOCs), the 1994 Protocol on Sulphur, the Protocol on Heavy Metals, the Protocol on Persistent Organic Pollutants (Protocol on POPs) and the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol). The tables were prepared based on the information provided by the EMEP Centre on Emission Inventories and Projections (CEIP).

The “X’s” in the tables correspond to submission of emission data by each Party to CEIP with respective notification sent to the secretariat. In addition to reporting of national totals, several tables indicate submission of gridded data for pollutants as required by respective Protocol. Table 7.1 also presents data on projections reporting under the Gothenburg Protocol for the years 2020, 2025 and 2030. National total emission data is presented on the basis of ‘fuel sold’ and ‘fuel used’ for the six Parties to the Gothenburg Protocol<sup>1</sup> that may choose the ‘fuel used’ option for compliance purposes.

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<sup>1</sup> These six countries are: Belgium, Lithuania, Luxembourg, the Netherlands, Switzerland and the United Kingdom of Great Britain and Northern Ireland.

## STATUS OF EMISSION DATA REPORTED BY PARTIES TO THE PROTOCOLS

**Table 1:**  
**Emissions reported by Parties to the 1985 Protocol on Sulphur**

	Party	Base year	2018	2019
		1980		
1	Albania	X	X	X
2	Austria	X	X	X
3	Belarus	X	X	X
4	Belgium	X	X	X
5	Bulgaria	X	X	X
6	Canada	X	X	X
7	Czechia	X	X	X
8	Denmark	X	X	X
9	Estonia	X	X	X
10	Finland	X	X	X
11	France	X	X	X
12	Germany	X	X	X
13	Hungary	X	X	X
14	Italy	X	X	X
15	Liechtenstein	X	X	X
16	Lithuania	X	X	X
17	Luxembourg	X	X	X
18	Netherlands	X	X	X
19	Norway	X	X	X
20	Russian Federation	X	X	X
21	Slovakia	X	X	X
22	Sweden	X	X	X
23	Switzerland	X	X	X
24	North Macedonia	X	X	X
25	Ukraine	X	X	X
	<b>Total*</b>	100%	100%	100%

X Data received

- No data received

n/a - Reporting obligation not applicable

\*In the total only the provision of data indicated as "X" is counted.

The absence of data indicated with "-" and the provision of notation keys are counted as "not reported".

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**Table 2:  
Emissions reported by Parties to the Protocol on Nitrogen Oxides**

	Party	Base year	2018	2019
		1987 (for US only - 1978)		
1	Albania	X	X	X
2	Austria	X	X	X
3	Belarus	X	X	X
4	Belgium	X	X	X
5	Bulgaria	X	X	X
6	Canada*	X	X	X
7	Croatia	X	X	X
8	Cyprus	X	X	X
9	Czechia	X	X	X
10	Denmark	X	X	X
11	Estonia	X	X	X
12	Finland	X	X	X
13	France	X	X	X
14	Germany	X	X	X
15	Greece	X	X	X
16	Hungary	X	X	X
17	Ireland	X	X	X
18	Italy	X	X	X
19	Liechtenstein	X	X	X
20	Lithuania	X	X	X
21	Luxembourg	X	X	X
22	Netherlands	X	X	X
23	Norway	X	X	X
24	Poland	X	X	X
25	Russian Federation	X	X	X
26	Slovakia	X	X	X
27	Slovenia	X	X	X
28	Spain	X	X	X
29	Sweden	X	X	X
30	Switzerland	X	X	X
31	North Macedonia	X	X	X
32	Ukraine	X	X	X
33	United Kingdom	X	X	X
34	United States*	X	X	X
35	EU-28	X	X	X
	<b>Total**</b>	100%	100%	100%

X Data received

- No data received

\*Party outside the geographic scope of EMEP

\*\*In the total only the provision of data indicated as "X" is counted.

The absence of data indicated with "-" and the provision of notation keys are counted as "not reported".

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**Table 3:  
Emissions reported by Parties to the Protocol on VOCs**

	Party (base year)	Gridded data				
		2019	2005	2010	2015	2019
1	Austria	x	x	x	x	x
2	Belgium	x	x	x	x	x
3	Bulgaria	x	x	x	x	x
4	Croatia	x	x	x	x	x
5	Czechia	x	x	x	x	x
6	Denmark	x	x	x	x	x
7	Estonia	x	x	x	x	x
8	Finland	x	x	x	x	x
9	France	x	x	x	x	x
10	Germany	x	x	x	x	x
11	Hungary	x	x	x	x	x
12	Italy	x	x	x	x	x
13	Liechtenstein	x	n/a	n/a	-	-
14	Lithuania	x	x	x	x	x
15	Luxembourg	x	x	x	x	x
16	Monaco	x	n/a	n/a	x	x
17	Netherlands	x	x	x	x	x
18	Norway	x	x	x	x	x
	Norway (TOMA)	x				
19	Slovakia	x	x	x	x	x
20	Spain	x	x	x	x	x
21	Sweden	x	x	x	x	x
22	Switzerland	x	x	x	x	x
23	North Macedonia	x	n/a	n/a	x	x
24	United Kingdom	x	x	x	x	x
	<b>Total</b>	100%	100%	100%	96%	96%

Annual data:

X Data received

- No data received (or blank cells in the reporting table)

n/a - Reporting obligation not applicable

Grey filling indicates that the entry was manual

The absence of data indicated with "-" and the provision of notation keys are counted as "not reported". TOMA - Tropospheric Ozone Management Area. Norway has obligations to report for the entry territory and for its TOMA under the VOC Protocol. The total Norwegian mainland as well as the exclusive economic zone south of 62°N latitude in the region of the Economic Commission for Europe (ECE), covering an area of 466,000 km<sup>2</sup>.

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**Table 4:  
Emissions reported by Parties to the 1994 Protocol on Sulphur**

	Party	Gridded data				
		2019	2005	2010	2015	2019
1	Austria	x	x	x	x	x
2	Belgium	x	x	x	x	x
3	Bulgaria	x	x	x	x	x
4	Canada*	x				
5	Croatia	x	x	x	x	x
6	Cyprus	x	x	x	x	x
7	Czechia	x	x	x	x	x
8	Denmark	x	x	x	x	x
9	Finland	x	x	x	x	x
10	France	x	x	x	x	x
11	Germany	x	x	x	x	x
12	Greece	x	x	x	x	x
13	Hungary	x	x	x	x	x
14	Ireland	x	x	x	x	x
15	Italy	x	x	x	x	x
16	Liechtenstein	x	n/a	n/a	-	-
17	Lithuania	x	x	x	x	x
18	Luxembourg	x	x	x	x	x
19	Monaco	x	n/a	n/a	x	x
20	Netherlands	x	x	x	x	x
21	Norway	x	x	x	x	x
22	Slovakia	x	x	x	x	x
23	Slovenia	x	x	x	x	x
24	Spain	x	x	x	x	x
25	Sweden	x	x	x	x	x
26	Switzerland	x	x	x	x	x
27	North Macedonia	x	n/a	n/a	x	x
28	United Kingdom	x	x	x	x	x
29	EU-28	x	x	x	x	x
	EU-12	x				
	<b>Total</b>	100%	100%	100%	96%	96%

x	Data received
-	No data received
n/a	Reporting obligation not applicable
*	Party outside the geographic scope of EMEP
The absence of data indicated with "-" and the provision of notation keys are counted as "not reported".	
EU-12 has not been considered as part of the Total	

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**Table 5:**  
**Emissions reported by Parties to the Protocol on POPs**

	Party (base year)	Base Year	Gridded data														
			2019	2019	2019	PCDD/Fs				PAHs				HCB			
			Diox	PAH	HCB	2005	2010	2015	2019	2005	2010	2015	2019	2005	2010	2015	2019
1	Austria	1987	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2	Belgium	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3	Bulgaria	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	Canada*	1990	x	x	x												
5	Croatia	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	Cyprus	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
7	Czechia	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
8	Denmark	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
9	Estonia	PAH - 1995; Diox - 1990; HCB - 1995	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	Finland	1994	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
11	France	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
12	Germany	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
13	Hungary	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
14	Iceland	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
15	Italy	1990	x	x	x	x	x	x	x	X	X	X*	x	NE	x	x	x
16	Latvia	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
17	Liechtenstein	1990	x	x	x	n/a	n/a	-	-	n/a	n/a	-	-	n/a	n/a	-	-
18	Lithuania	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
19	Luxembourg	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
20	Montenegro	1990	x	x	x	n/a	n/a	-	-	n/a	n/a	-	-	n/a	n/a	-	-
21	Netherlands	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
22	Norway	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
23	Moldova, Republic of	1990	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-
24	Romania	1989	x	x	x	x	x	x	-	x	x	x	-	x	x	x	-
25	Serbia	1990	x	x	x	n/a	n/a	-	-	n/a	n/a	-	-	n/a	n/a	-	-
26	Slovakia	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
27	Slovenia	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
28	Spain	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
29	Sweden	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
30	Switzerland	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
31	North Macedonia	1990	x	x	x	n/a	n/a	x	x	n/a	n/a	x	x	n/a	n/a	x	x
32	United Kingdom	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
33	EU-28	1990	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	<b>Total</b>		100%	100%	100%	97%	97%	88%	84%	97%	97%	88%	84%	94%	97%	88%	84%

x Data received  
- No data received  
n/a Reporting obligation not applicable  
NE "Not Estimated" (notation key from the Guidelines for reporting emissions and projections data used by Party)  
\* Party outside the geographic scope of EMEP

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**Table 6:  
Emissions reported by Parties to the Protocol on Heavy Metals**

	Party (Base year)	Gridded data				
		2019	2005	2010	2015	2019
1	Austria (1985)	x	x	x	x	x
2	Belgium (1990)	x	x	x	x	x
3	Bulgaria (1990)	x	x	x	x	x
4	Canada* (1990)	x				
5	Croatia (1990)	x	x	x	x	x
6	Cyprus (1990)	x	x	x	x	x
7	Czechia (1990)	x	x	x	x	x
8	Denmark (1990)	x	x	x	x	x
9	Estonia (1990)	x	x	x	x	x
10	Finland (1990)	x	x	x	x	x
11	France (1990)	x	x	x	x	x
12	Germany (1990)	x	x	x	x	x
13	Hungary (1990)	x	x	x	x	x
14	Latvia (1990)	x	x	x	x	x
15	Liechtenstein (1990)	x	n/a	n/a	-	-
16	Lithuania (1990)	x	x	x	x	x
17	Luxembourg (1990)	x	x	x	x	x
18	Monaco (1992)	x	n/a	n/a	x	x
19	Montenegro (1990)	x	n/a	n/a	-	-
20	Netherlands (1990)	x	x	x	x	x
21	Norway (1990)	x	x	x	x	x
22	Portugal (1990)	x	x	x	x	x
23	Republic of Moldova (1990)	x	-	-	-	-
24	Romania (1989)	x	x	x	x	-
25	Serbia (1990)	x	n/a	n/a	-	-
26	Slovakia (1990)	x	x	x	x	x
27	Slovenia (1990)	x	x	x	x	x
28	Spain (1990)	x	x	x	x	x
29	Sweden (1990)	x	x	x	x	x
30	Switzerland (1990)	x	x	x	x	x
31	North Macedonia (1990)	x	n/a	x	x	x
32	United Kingdom (1990)	x	x	x	x	x
33	United States* (1990)	n/a				
34	EU-28 (1990)	x	x	x	x	x
	<b>Total</b>	100%	97%	97%	88%	84%

x Data received

- No data received (or blank cells in the reporting table)

n/a Reporting obligation not applicable

NE "Not Estimated" (notation key from the Guidelines for reporting emissions and projections data used by Party)

\* Party outside the geographic scope of EMEP

Grey filling indicates that the entry was manual

**Table 7.1:**  
**Emissions reported by Parties to the Gothenburg Protocol: annual data and projections**

	Party	Rep.	NOx	NM/VOC	NH3	Projections*				Projections*				Projections*			
		2019	2019	2019	2019	2020				2025				2030			
		SO2	NOx	VOCs	NH3	SO2	NOx	VOCs	NH3	SO2	NOx	VOCs	NH3	SO2	NOx	VOCs	NH3
1	Belgium (fuel sold)	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
	Belgium (fuel used)	x	x	x	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2	Bulgaria	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
3	Canada	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
4	Croatia	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
5	Cyprus	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
6	Czechia	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
7	Denmark	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
8	Finland	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
9	France	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
10	Germany	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
11	Hungary	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
12	Latvia	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
13	Lithuania (fuel sold)	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
	Lithuania (fuel used)					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
14	Luxembourg (fuel sold)	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
	Luxembourg (fuel used)	x	x	x	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
15	Netherlands (fuel sold)	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
	Netherlands (fuel used)	x	x	x	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
16	Norway	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
17	Portugal	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
18	Romania	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
19	Slovakia	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
20	Slovenia	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
21	Spain (EMEP territory)	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
22	Sweden	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
23	Switzerland (fuel sold)	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
	Switzerland (fuel used)	x	x	x	x	X	X	X	X	n/a	n/a	n/a	n/a	X	X	X	X
24	North Macedonia	x	x	x	x	X	X	X	-	-	-	-	-	-	-	-	-
25	United Kingdom (fuel sold)	x	x	x	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	United Kingdom (fuel used)	-	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
26	United States	x	x	x	x	X	X	X	X	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	United States (PEMA)**	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	EU-28	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X
27	EU-15	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	97%	100%	100%	100%	100%	100%	100%	96%	96%	96%	96%	96%	96%	96%	96%	96%

x Data received  
 - No data received (or blank cells in the reporting table)  
 n/a Reporting obligation not applicable  
 \* The value reported under projections is the national total value for the entire territory, which is based on fuel sold. Only the United Kingdom report the projected value based on fuel used.  
 \*\* Parties to the Gothenburg Protocol within the geographical scope of EMEP shall regularly update their projections and report every four years from 2015 onward their updated projections, for the years 2020, 2025 and 2030.  
 \*\*\* Party outside the geographic scope of EMEP  
 Obligations for EU28 are included under the revised GP.  
 EU-15 has not been considered as part of the Total.  
 According to the guidelines there are 8 countries that can report emissions on the basis of fuel used for compliance purposes under the GP;  
 6 of these are Parties to the Protocol and are indicated in blue above; the non-submission of "fuel used" data does not indicate a case of non-reporting  
 The US has obligations under the GP for PEMA's instead of the entire territory; see below for the difference in PEMA's per pollutant  
 SOx: 48 contiguous United States and District of Columbia (indicative ceiling)  
 NOx and VOC: Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin (indicative ceiling)



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**Table 7.2:  
Gridded data reported by Parties to the Gothenburg Protocol**

Party	Gridded data															
	VOCs				Sulphur				NO <sub>x</sub>				NH <sub>3</sub>			
	2005	2010	2015	2019	2005	2010	2015	2019	2005	2010	2015	2019	2005	2010	2015	2019
Belgium (fuel sold)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Belgium (fuel used)																
Bulgaria	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Canada																
Croatia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Cyprus	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Czech Republic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Denmark	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Finland	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
France	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Germany	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Hungary	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Latvia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lithuania (fuel sold)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lithuania (fuel used)																
Luxembourg (fuel sold)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Luxembourg (fuel used)																
Netherlands (fuel sold)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Netherlands (fuel used)																
Norway	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Portugal	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Romania	x	x	x	-	x	x	x	-	X*	X	X*	-	X*	X	X*	-
Slovakia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Slovenia	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Spain (EMEP territory)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Sweden	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Switzerland (fuel sold)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Switzerland (fuel used)																
North Macedonia	n/a	n/a	x	x	n/a	n/a	x	x	n/a	n/a	x	x	n/a	n/a	x	x
United Kingdom (fuel sold)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
United Kingdom (fuel used)																
United States																
United States (PEMA)**																
EU-28***	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
EU-15																
	96%	96%	96%	92%	96%	96%	96%	92%	96%	96%	96%	92%	96%	96%	96%	92%