



Economic Commission for EuropeExecutive Body for the Convention on Long-range
Transboundary Air Pollution**Steering Body to the Cooperative Programme for
Monitoring and Evaluation of the Long-range
Transmission of Air Pollutants in Europe****Working Group on Effects****Fifth joint session**

Geneva, 9–13 September 2019

Item 2 (b) of the provisional agendas

**Progress in emission inventories and other emissions-related issues:
improvement of emission data****Present state of emission data, review process and
data for modellers****Report of the Centre on Emission Inventories and Projections***Summary*

The present report was prepared by the Centre on Emission Inventories and Projections in line with its mandate under the 2018–2019 workplan for the implementation of the Convention on Long-range Transboundary Air Pollution (ECE/EB.AIR/140/Add.1, items 1.1.2.1, 1.1.2.2, 1.3.3, 3.1, 3.2 and 3.4) and the tasks set out in document ECE/EB.AIR/2018/6 “Revised mandates for the centres under the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP)”, submitted to the Executive Body for the Convention at its thirty-eighth session (Geneva, 10–14 December 2018).

The report reflects progress in emissions reporting under the Convention in the 2019 reporting round. It summarizes the main conclusions of the annual review of emission data carried out under the Cooperative Programme for Monitoring and Evaluation of the Long-range Transboundary Transmission of Air Pollutants in Europe and presents the outcome of the stage 3 in-depth reviews of national inventories in 2019 and the plans for the period ending in 2020.

It also looks at the review of adjustment applications submitted by Parties and progress in the development and improvement of gridded data and the gridding system. Annexed to the document is a table summarizing the status of emission reporting by Parties as at 4 June 2019.



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Introduction

1. At its thirty-second session (Geneva, 9–13 December 2013), the Executive Body for the Convention adopted the Guidelines for Reporting Emissions and Projections Data under the Convention on Long-range Transboundary Air Pollution (Reporting Guidelines) (ECE/EB.AIR/125) through its decisions 2013/3 and 2013/4 (see ECE/EB.AIR/122/Add.1). The Reporting Guidelines were adopted for application in 2015 and subsequent years and contain background information on the reporting requirements, deadlines and procedures for reporting emissions under the Convention and their review.
2. The present report reflects progress in emissions reporting under the Convention on Long-range Transboundary Air Pollution in the 2019 reporting round (2017 emission data, including resubmissions for previous years since 1990, activity data and projections, and gridded and large point source data). It summarizes the main conclusions of the annual review¹ and the review of emission data carried out under the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) in line with the 2018–2019 workplan for the implementation of the Convention (ECE/EB.AIR/140/Add.1). The report also outlines progress in improving the new gridding system and developing historical data sets for modellers in the new resolution.
3. The report was prepared by the EMEP Centre on Emission Inventories and Projections,² hosted by the Environment Agency Austria.

I. Present state of emission data

4. *Completeness.* Of the 51 Parties to the Convention, 45 had submitted data up to 4 June 2019. All countries except Albania reported data in the new formats (i.e., the Nomenclature for Reporting 2014). No data were received from Bosnia and Herzegovina, Greece, Kazakhstan, Liechtenstein, Montenegro or the Republic of Moldova. An up-to-date overview of the data submitted by Parties during the 2019 reporting round is available on the Centre on Emission Inventories and Projections website³ and in the annex to the present document. In addition, the latest version of officially reported emission data can be accessed through an online database.⁴ Most of the Parties that submitted data (38) also provided the secretariat with the notification form.
5. *Timeliness.* Thirty-seven Parties reported emission data by the due date of 15 February (or, in the case of the European Union, 30 April) 2019. Twenty-one Parties resubmitted data. Parties were to provide resubmissions within the four weeks following the due date; eight of them sent resubmissions after that date, with the latest provided on 30 April 2019. Forty Parties submitted informative inventory reports (with 13 of them doing so after the deadline of 15 March 2019).
6. *Uncertainty.* Twenty-four Parties included quantitative information on uncertainty estimates in their informative inventory reports. However, not all of these Parties report both trend and level uncertainty estimates and many Parties do not provide uncertainty estimates for all pollutants. In some cases, uncertainty information is only provided for certain sectors/categories and not for the emission total.
7. *Pollutants.* Forty-five Parties submitted inventories, but not all of their submissions included all of the pollutants listed in the Reporting Guidelines. All 45 Parties reported their 2017 data on the main pollutants and particulate matter. Cadmium, mercury and lead

¹ An annual technical review is carried out in cooperation with the European Environment Agency and its European Topic Centre on Air Pollution and Climate Change Mitigation.

² The Centre on Emission Inventories and Projections was established by the Executive Body of the Convention at its twenty-fifth session (ECE/EB.AIR/91, para. 27 (f)) and began operating on 15 January 2008. See www.ceip.at.

³ Submissions 2019, available at www.ceip.at/status_reporting/2019_submissions.

⁴ Centre on Emission Inventories and Projections, Official reported emission data in 2019. Available at www.ceip.at/webdab_emepdatabase/reported_emissiondata.

emissions were provided by 44 Parties, additional heavy metals by 38 and priority persistent organic pollutants by 43 Parties. Activity data were reported by only 39 Parties.

8. *Black carbon.* Thirty-nine Parties reported black carbon emissions (on a voluntary basis) and 28 of them submitted emission time series (2000–2016) in 2019.

9. *Gridded data.* Gridded data are part of the quadrennial reporting obligation. In 2017, 27 Parties reported gridded data, at least for 2015, for the first time in the new resolution. Five Parties submitted gridded data in 2019 and 3 of them – Germany, Spain and Switzerland – provided updates on historical years.

10. *Large point source data.* Large point source data are also part of the quadrennial reporting obligation. Thirty-five Parties submitted data for at least 2015 in 2017, four Parties submitted data in 2018 and three Parties submitted data in 2019.

11. *Documentation.* Only 89 per cent of Parties reporting inventories also submitted informative inventory reports in 2019. The Centre on Emission Inventories and Projections evaluates the informative inventory reports annually and the best national teams receive awards during the meetings of the Task Force on Emission Inventories and Projections. In 2019, six awards⁵ in five categories were given to Croatia, Denmark, Norway, Romania and Spain. Emisia (Greece) was awarded for its important contribution to the development of transport emissions inventories.

12. *Projections.* In 2019, emission projections for 2020, 2025 and 2030 were submitted or updated by 25 Parties (23 in 2017). Projections with additional measures were provided by 14 Parties out of the 25 Parties.

13. *Access to the information.* The Centre on Emission Inventories and Projections updated its website to reflect revisions in the Reporting Guidelines and to improve the transparency and accessibility of data for Parties, the EMEP Steering Body, the Implementation Committee and the public. Websites with information on adjustment procedures, adjustment applications, review, findings and approved adjustment have also been updated. In addition, the Centre provides its users with an online interactive data viewer⁶ that can help with the analysis and visualization of the officially reported emissions data submitted by countries under the Convention.

14. *Emissions per capita and emissions per gross domestic product (GDP).* These indicators are calculated for all Parties that submit total national emissions of main pollutants, particulate matter, heavy metals and persistent organic pollutants by using information on population and GDP available from the World Bank Group database. Significant differences are observed across Parties and years.

II. Technical review of inventories

15. *Main objective.* The main objective of the technical review of inventories is to assist countries in improving their data for the next reporting round. All inventories submitted by Parties were tested via RepDab⁷ and imported into the Centre on Emission Inventories and Projections central database. As a next step, a technical review of all inventories was carried out. At each stage of the review, Parties had the opportunity to clarify issues and to provide additional information. The process is seen by Parties as valuable and the feedback is provided to the Centre by means of email communications and during the meetings of the Task Force on Emission Inventories and Projections.

16. *Initial (Stages 1 and 2) review.* The findings of the initial review were communicated to the national designated experts through the country-specific status and assessment reports by 12 March 2019, and again by 5 April 2019. An overview of the findings for the

⁵ See www.ceip.at/status_reporting/2018_submissions/.

⁶ Officially reported emission data, June 2019. See www.ceip.at/data_viewers/official_tableau/.

⁷ The RepDab tool is also available from the Centre on Emission Inventories and Projections website at www.ceip.at/repdab_howtouse/.

stage 1 and 2 reviews is summarized in the forthcoming joint Centre on Emission Inventories and Projections-European Environment Agency “Inventory Review 2019”,⁸ to be made available on the Centre’s website.

17. *In-depth (stage 3) review.* This in-depth review of inventories supports Parties in compiling and submitting high quality inventories and increases confidence in the data used for air pollution modelling. The aim is to conduct a stage 3 review for every Party⁹ at least once in a five-year period. Resources are required from the expert review team,¹⁰ the reviewed Parties and the Centre on Emission Inventories and Projections. The Centre coordinates the entire process, while the review teams have full responsibility for findings and recommendations.

18. Parties are expected to nominate review experts to the EMEP roster and provide sufficient resources to enable their participation in the process. One hundred reviewers from 24 Parties¹¹ are listed on the Centre on Emission Inventories and Projections roster of experts. The nominated experts are suitably qualified to review submitted inventories. The stage 3 review meetings are held at the European Environment Agency in Copenhagen in June of each year.

19. During the first and second review rounds (2008–2012, 2013–2017), 44 Parties were reviewed in each round. Reviewers identified areas for improvement in all the inventories that were checked. The Parties had an opportunity to provide comments before the reports were published. The results are posted on the Centre on Emission Inventories and Projections website.¹²

20. The plan for in-depth (stage 3) reviews for the period 2018–2020 was approved by the EMEP Steering Body at its third joint session with the Working Group on Effects (ECE/EB.AIR/GE.1/2017/2–ECE/EB.AIR/WG.1/2017/2). It reflects review activities under the European Union National Emission Ceilings Directive¹³ and, in order to minimize duplication of work, focuses on non-European Union countries, including in Eastern Europe, the Caucasus and Central Asia. The plan is modified if any listed Party does not submit the requested information¹⁴ on time. For details, see previous Centre on Emission Inventories and Projections status reports to the EMEP Steering Body and the country reports, which are available online. The feedback received during the meetings of the Task Force on Emission Inventories and Projections indicates that inventory compilers consider the in-depth reviews to be useful and recommend that they be continued.

⁸ Marion Pinteris and others, *Inventory Review 2019: Review of emission data reported under the LRTAP Convention and NEC Directive — Joint report of Centre on Emission Inventories and Projections and EEA*, Technical Report Centre on Emission Inventories and Projections 4/2019 (Vienna, Environment Agency Austria, 2019) (forthcoming).

⁹ The participation of the United States of America and Canada in the inventory in-depth review process is to be discussed.

¹⁰ It is estimated that members of the expert review team devote about 10 to 15 days to their tasks, which include preparation, questions for the Parties, participation in the review meeting and follow-up activities, including finalizing the country review reports.

¹¹ Austria, Belgium, Croatia, Czechia, Denmark, Estonia, the European Union, Finland, France, Germany, Greece, Ireland, Italy, Kazakhstan, Latvia, the Netherlands, North Macedonia, Norway, Poland, Serbia, Slovakia, Spain, Sweden and the United Kingdom of Great Britain and Northern Ireland.

¹² See www.ceip.at/review_results/stage3_country_reports/.

¹³ Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC, Official Journal of the European Union, L 344, 2016, pp. 1–31.

¹⁴ As defined by decision 2018/1: Updated methods and procedures for the technical reviews of air pollutant emission inventories reported under the Convention (ECE/EB.AIR/142/Add.1), submission of emissions data and an informative inventory report is a prerequisite for a Party to be included in the stage 3 in-depth review.

Updated long-term plan for stage 3 reviews during the period 2018–2020, approved by the EMEP Steering Body in September 2018

<i>Year</i>	<i>Country for review</i>
2018	Armenia, Azerbaijan, Belarus, Finland, Republic of Moldova and Ukraine
2019	Albania, Bosnia and Herzegovina, ^a Georgia, Montenegro, ^b Norway, Russian Federation, Serbia and Turkey
2020	European Union, Iceland, Kazakhstan, Kyrgyzstan, Liechtenstein, Monaco, North Macedonia and Switzerland

^a Because Bosnia and Herzegovina had not submitted either inventory data or an informative inventory report, its review had to be cancelled.

^b Because Montenegro has not submitted either inventory data or an informative inventory report since 2013, its review had to be cancelled.

21. A total of 18 experts accepted the invitation to join the in-depth review for 2018: two from Austria, the European Union and France, and one each from Croatia, Czechia, Denmark, Estonia, Finland, Latvia, the Netherlands, Norway, Poland, Spain and the United Kingdom. The review began in mid-May and the reports should be completed and published before the thirty-ninth session of the Executive Body (Geneva, 9–13 December 2019).

III. Emission data for modellers

22. *Gap-filled and gridded data sets.* Gap-filled and gridded data sets were calculated for the years 1990 to 2017 (main pollutants and particulate matter) and for 2017 (heavy metals and persistent organic pollutants, with data as at 6 May 2019).

23. Where sufficient reported data were not available or data had to be replaced, expert estimates (from, for example, the Greenhouse Gas and Air Pollution Interactions and Synergies model, the Netherlands Organization for Applied Scientific Research Monitoring Atmospheric Composition and Climate II - Interim Implementation emission inventory, the common reporting format data under the European Union Greenhouse Gas Monitoring Mechanism (European Union, 2013), data from CAMS-REG-AP-version 2.2 (Emissions of atmospheric Compounds and Compilation of Ancillary Data, 2019), the Emission Database for Global Atmospheric Research, the Global Mercury Assessment 2013, the POPCYCLING-BALTIC project or the Global atmospheric emission inventory of polycyclic aromatic hydrocarbons) were used for gap-filling. The gap-filling and gridding was done on aggregated sectors (Gridding Nomenclature for Reporting 14) in 0.1° x 0.1° longitude/latitude grid resolution, based on the gridding system developed by the Centre on Emission Inventories and Projections. The gap-filling methods are documented in technical reports¹⁵ and are published on the Centre on Emission Inventories and Projections website.

24. *Gap-filled and gridded emission data* were distributed to the modellers and have been publicly accessible on the Centre on Emission Inventories and Projections website since July 2019.¹⁶ Gridded carbon monoxide, nitrogen oxides, non-methane volatile organic compounds, ammonia (NH₃), particulate matter (PM_{2.5}, PM₁₀ and PM_{coarse}) and sulphur oxides emissions for the years 1990 to 2017 at Gridding Nomenclature for Reporting 14 sector level and gridded heavy metals and persistent organic pollutant emissions for the year 2017 at Gridding Nomenclature for Reporting 14 sector level were provided to the

¹⁵ Technical report, Centre on Emission Inventories and Projections, 1/2019, Technical report, Centre on Emission Inventories and Projections, 2/2019, and Technical report, Centre on Emission Inventories and Projections, 3/2019 (forthcoming).

¹⁶ Emissions as used in EMEP models, available at www.ceip.at/webdab_emepdatabase/emissions_emepmodels.

EMEP modellers in June 2019. For the first time, black carbon emissions were gridded for one year (2017).

25. *Shipping emissions.* Shipping emissions are not reported by Parties. Emissions for the sea regions were calculated using the Copernicus Atmosphere Monitoring System global ship dataset for the years 2000–2017 (Finnish Meteorological Institute, 2019), provided via Emissions of atmospheric Compounds and Compilation of Ancillary Data; CAMS-GLOB-SHIP.¹⁷ Shipping emissions from 1990–1999 were calculated using Emissions of atmospheric Compounds and Compilation of Ancillary Data global ship emissions for 2000, adjusted with trends for global shipping from Emission Database for Global Atmospheric Research version 4.3.2.¹⁸

IV. Gridding system in 0.1 x 0.1 longitude/latitude resolution

26. The gridding system in higher spatial resolution (0.1° x 0.1°) developed by the Centre on Emission Inventories and Projections is module-based and uses reported gridded emission data as a first step. Where no reported gridded data in the 0.1° x 0.1° resolution is available, Copernicus Atmosphere Monitoring System and Emission Database for Global Atmospheric Research proxies are used and upgraded by point source information available from the European Pollutant Release and Transfer Register.¹⁹ The system also uses global shipping emissions from the Finnish Meteorological Institute, which is based on automatic identification system tracking data.

27. *Update of historical emissions.* In 2019, gridded data for the whole time series from 1990 to 2016 were prepared. The production of gridded data in high resolution requires a huge increase in annual gap-filling and gridding work for the Centre on Emission Inventories and Projections and to do this in the limited time period between the submission of data (15 March) and the deadline for the production of gridded data (beginning of May) is a big challenge.

28. Further comparison of gridded emissions with gridded data from CAMS-REG-AP-v2.2 and selected surrogate data, such as roads or land use, is carried out. The procedure is extremely time-consuming and its scope will be limited by the available budget.

V. Review of submitted adjustment applications

29. The Netherlands submitted new adjustment applications to the secretariat in 2019. Nine Parties (Belgium, Denmark, Finland, France, Germany, Hungary, Luxembourg, Spain and the United Kingdom of Great Britain and Northern Ireland) submitted the reporting templates in annex VII to the Reporting Guidelines, with adjustments approved in 2014, 2015, 2016, 2017 and/or 2018. Approved adjustments reported in annex VII have been imported into the website tool,²⁰ where all information can be easily viewed and compared. All submitted applications, both new and previously approved, have been reviewed by the expert review team and recommendations to the EMEP Steering Body are provided in a special status report on adjustments.²¹ The activity was covered by EMEP mandatory contributions.

VI. Conclusions

30. *Timeliness and completeness.* In 2019, 45 Parties submitted their inventories. While the completeness of information on the priority pollutants is relatively good, not all Parties

¹⁷ See <https://eccad.aeris-data.fr>.

¹⁸ See <https://edgar.jrc.ec.europa.eu>.

¹⁹ See <http://prtr.ec.europa.eu>.

²⁰ See http://webdab1.umweltbundesamt.at/adjustments_GP.

²¹ See www.ceip.at/adjustments_gp/adj_country_data/.

reported (voluntary) additional heavy metals, black carbon and activity data. The persisting problem with data completeness and quality, particularly in the eastern part of the EMEP domain, could not be resolved. The United Nations Economic Commission for Europe should consider enhancing its capacity-building and awareness-raising programme in countries of Eastern Europe, the Caucasus and Central Asia and in the Western Balkan countries.

31. *Failure to report.* Bosnia and Herzegovina and Montenegro have not reported emission data to the Centre on Emission Inventories and Projections within the past eight years. Greece, Kazakhstan, Liechtenstein and the Republic of Moldova did not submit any data in 2019. Several times a year, the Centre provides the Implementation Committee under the Convention with detailed information on how the Parties to the Protocols to the Convention are fulfilling their reporting obligations.

32. *Gridded data and large point sources.* In 2019, a total of 29 countries (57 per cent of the Parties) submitted 2015 gridded sectoral data in the new resolution ($0.1^\circ \times 0.1^\circ$), and 39 countries (76 per cent of the Parties) submitted large point source data. In the 2019 reporting round, five Parties submitted gridded data in the new resolution and three Parties submitted large point source data to the Centre on Emission Inventories and Projections.

33. *Recalculations of emissions. Uncertainty.* Review of submitted inventories identifies significant recalculations every year. This fact seems to indicate relatively high uncertainty of emission estimates at the sectoral or country level. However, only roughly half of the Parties provide quantitative information on uncertainty estimates. Currently, it is not possible to use the information provided for the calculation of the uncertainty of the emissions in the EMEP domain.

34. *Stage 3 in-depth reviews.* The Centre on Emission Inventories and Projections successfully organized the 2019 stage 3 review and adjustment review, reviewing inventory of six Parties respectively adjustments submitted by 10 Parties. While most of the Parties reviewed clearly recognize the value of the review process in terms of improving the quality of their national inventories, difficulties are often encountered when EMEP requests complete inventory data and relevant explanatory information in a transparent format.

35. *Review of adjustment applications.* The assessment of adjustment applications was organized in line with Executive Body decisions 2012/2, 2012/13 and 2014/1. Details on the process and findings are provided in document ECE/EB.AIR/GE.1/2019/10–ECE/EB.AIR/WG.1/2019/22.

36. *Resource limitations.* A persistent key constraint for both reviews is the limited nature of the resources provided to invited experts by Parties. Each year, a subset of the nominated experts cannot accept the invitation owing to technical issues or lack of resources. EMEP may wish to consider how to financially support²² the participation in the review process of experts from Eastern Europe, the Caucasus and Central Asia and Western Balkan countries.

37. *The gridding system.* A gridding system (higher resolution of $0.1^\circ \times 0.1^\circ$, World Geodetic System 1984 (a geographic coordinate system) and the use of 13 Gridding Nomenclature for Reporting sectors) is available. The production of gridded data in high resolution requires a huge amount of annual gap-filling and gridding work for the Centre on Emission Inventories and Projections and to do this in the limited time period between the submission of data (15 March for inventory data and 1 May for gridded data) and the deadline for the production of gridded data (beginning of May) is a big challenge.

38. *Increasing reliability of gridded data.* In order to increase the reliability of emission data for modellers, it is extremely important that those Parties that did not submit gridded data under the new system in 2017, 2018 or 2019, do so in 2020. It is also important that Parties update their gridded emissions for the years 1990 and 1995 (voluntary), 2000, 2005, 2010 and 2015, as recommended in the Reporting Guidelines.

²² The European Environment Agency covered the travel costs of seven experts (from Czechia, Estonia, Greece, Kazakhstan and Latvia) and two trainees (from North Macedonia and Serbia) during the period 2010–2012, and of one expert from North Macedonia in 2018, in order to enable them to participate in stage 3 reviews.

Annex

Status of emission reporting as at 4 June 2019

Party	Annual reporting				Quadrennial reporting			Adjustments	
	Annex I Submission date	Resubmission date	Date of IIR	Notification form	Projection submission date	Gridded data submission date	Large point sources submission date	New adjustment application	Annex VII
Albania	15.02.2019								
Armenia	15.02.2019		15.03.2019	15.02.2019					
Austria	14.02.2019		15.03.2019	15.02.2019	15.03.2019				
Azerbaijan	15.02.2019	06.04.2019	06.04.2019	15.02.2019					
Belarus	15.02.2019	14.03.2019	14.03.2019	15.02.2019					
Belgium	15.02.2019	15.03.2019	15.03.2019	15.02.2019	15.03.2019				X
Bosnia and Herzegovina									
Bulgaria	15.02.2019		15.03.2019	15.02.2019	15.03.2019				
Canada	15.02.2019		15.03.2019	15.02.2019	15.02.2019				
Croatia	16.02.2019	15.03.2019	15.03.2019	29.03.2019	15.03.2019				
Cyprus	15.02.2019	15.03.2019	15.03.2019	15.02.2019	15.03.2019				
Czechia	15.02.2019	15.03.2019, 30.04.2019, 09.05.2019	15.03.2019, 30.04.2019	15.02.2019	15.03.2019, 14.04.2019				
Denmark	15.02.2019		15.03.2019	15.02.2019	15.03.2019	17.01.2019			X
Estonia	13.02.2019	13.03.2019	15.03.2019	13.02.2019	13.03.2019				
European Union	29.04.2019			29.04.2019					
Finland	15.02.2019	13.03.2019	14.03.2019, 05.05.2019	15.02.2019	15.02.2019	01.05.2019	01.05.2019		X

Party	Annual reporting				Quadrennial reporting			Adjustments	
	Annex I Submission date	Resubmission date	Date of IIR	Notification form	Projection submission date	Gridded data submission date	Large point sources submission date	New adjustment application	Annex VII
France	15.02.2019		15.03.2019	15.02.2019					X
Georgia	14.02.2019		14.03.2019						
Germany	12.02.2019	12.03.2019	15.03.2019	12.2.2019		25.04.2019			X
Greece									
Hungary	16.02.2019	18.03.2019	18.03.2019	16.02.2019	18.03.2019				X
Iceland	05.03.2019			05.03.2019					
Ireland	15.02.2019		15.03.2019, 07.05.2019	15.02.2019	15.03.2019				
Italy	28.02.2019	14.03.2019, 19.04.2019	24.03.2019, 19.04.2019	29.03.2019	14.03.2019				
Kazakhstan									
Kyrgyzstan	03.05.2019		03.05.2019						
Latvia	15.02.2019	15.03.2019	15.03.2019, 28.03.2019	15.02.2019	28.03.2019				
Liechtenstein									
Lithuania	14.02.2019	15.02.2019	15.03.2019	15.02.2019	15.03.2019, 02.04.2019				
Luxembourg	15.02.2019	15.03.2019, 26.03.2019, 26.04.2019	15.03.2019	15.02.2019	15.03.2019				X
Malta	18.02.2019								
Monaco	15.02.2019			15.02.2019					
Montenegro									
Netherlands	14.02.2019	04.04.2019	15.03.2019, 04.04.2019	14.02.2019	15.03.2019, 04.04.2019			X	
North Macedonia	15.02.2019	16.04.2019	10.05.2019	15.02.2019					

Party	Annual reporting				Quadrennial reporting			Adjustments	
	Annex I Submission date	Resubmission date	Date of IIR	Notification form	Projection submission date	Gridded data submission date	Large point sources submission date	New adjustment application	Annex VII
Norway	14.02.2019		15.03.2019	14.02.2019					
Poland	21.02.2019	15.03.2019	15.03.2019	11.02.2019	15.03.2019				
Portugal	15.02.2019	15.03.2019, 30.04.2019	15.03.2019, 30.04.2019						
Republic of Moldova									
Romania	14.02.2019	15.03.2019	15.03.2019	14.02.2019	15.03.2019				
Russian Federation	13.02.2019		13.03.2019	13.02.2019					
Serbia	13.02.2019	04.03.2019	14.03.2019	13.02.2019, 04.03.2019					
Slovakia	15.02.2019	15.03.2019	15.03.2019		16.03.2019				
Slovenia	05.02.2019		14.03.2019	05.02.2019	13.03.2019				
Spain	13.02.2019		15.03.2019	13.02.2019	14.03.2019	26.04.2019	26.04.2019		X
Sweden	06.02.2019		08.03.2019	30.01.2019	14.03.2019				
Switzerland	14.02.2019		12.03.2019	14.02.2019	14.02.2019	14.02.2019	12.03.2019		
Turkey	15.02.2019		15.03.2019	15.02.2019					
Ukraine	14.02.2019		08.04.2019						
United Kingdom	15.02.2019		15.03.2019, 12.04.2019	15.02.2019	15.03.2019				X
United States	21.03.2019		21.03.2019	21.03.2019					

Abbreviation: IIR = informative inventory report, NFR = nomenclature for reporting.