Convention on Long-range Transboundary Air Pollution
emep Co - operative programme for monitoring and evaluation of the long-range transmissions of air pollutants in Europe

CEIP umweltbundesamt

# 2016 Review of Adjustment Applications and of Approved Adjustments

(Formal outcome of the reviews)

Katarina Mareckova, CEIP

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# Content

- The presentation provides a summary of
  - the 2016 review of applications for adjustments to emission inventories submitted by **2 Parties** in 2015 and
  - review of **7 Parties reporting applications** approved in 2014 and in 2015

## Adjustments 2016

Two Parties Germany and Luxembourg submitted new adjustment application in 2016 . Seven Parties reported approved adjustments in Annex VII template. Recommendations of the expert review team (ERT) to the EMEP Steering Body (SB) are summarized in the CEIP status report *Review of adjustment applications [PDF, 274KB]* (ECE/EB.AIR/GE.1/2016/10–ECE/EB.AIR/WG.1/2016/18).

| BELGIUM | DENMARK | FINLAND | FRANCE | GERMANY | LUXEMBOURG | SPAIN |
|---|---|---|---|---|---|---|
| NA | NA | NA | NA | Application | Application | NA |
| Annex_VII | Annex_VII | Annex_VII | Annex_VII | Annex_VII | Annex_VII | Annex_VII |
| Other | Other | Other | Other | Other | Other | Other |
| NA | NA | NA | NA | Review report | Review report | NA |

http://www.ceip.at/adjustments_gp/adj_country_data/

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# Adjustments under the GP

- Parties may apply to adjust their emission reduction commitments or inventory data in **extraordinary circumstances**, as defined in the EMEP Executive Body decisions 2012/3 and 2012/4 (ECE/EB.AIR/111/Add.1) as *amended by EB decision 2014/1*.
  - (a) **Emission source categorie**s are identified that were not accounted for at the time when the emission reduction commitments were set; (for a more detailed definition see decision 2014/1, annex, para. 3 (a) (i)–(iii));
  - (b) **Emission factors** used to determine emissions levels for particular source categories for the year in which emissions reduction commitments are to be attained are significantly different than the emission factors applied to these categories when emission reduction commitments were set;
  - (c) **The methodologies** used for determining emissions from specific source categories have undergone significant changes between the time when emission reduction commitments were set and the year they are to be attained.

# Adjustment application

- Guidance is provided in the ***EB Decisions 2012/12*** extended by document: *Guidance for Parties Making Adjustment Applications and for the Expert Review of Adjustment Applications* (**ECE/EB.Air/130**)

- A Party planning an adjustment to its inventory for the purpose of comparing total national emissions with emission reduction commitments shall **indicate categories and pollutants concerned to the UNECE secretariat and CEIP in its notification** - deadline for notification is 15 February.

- **Supporting documentation** shell be provided in **IIRs** or in **a separate report** latest by 15 March. The IIR template (Annex II to the 2014 Reporting Guidelines) lists the required supporting information.

- **Additional quantitative information** shell be submitted in **Excel template (Appemdix B1)** (Annex_II to ECE-EB.Air30_Adjustement_Application)

# Adjustments Applications 2016

| Country | Sector | NFR14 source category [a] | Pollutant | Years |
|---|---|---|---|---|
| **Germany** | Road transport [b] | 1A3bi-iv | $NO_x$ | 2010–2014 |
| | Agriculture | 3Da2c, 3I | $NO_x$, | 2010–2014 |
| | Agriculture | 3Da2c, 3I | $NH_3$ | 2010–2014 |
| **Luxembourg** | Agriculture | 3B, 3De | $NO_x$, | 2010–2014 |
| | Agriculture | 3B, 3De | NMVOC | 2010–2014 |

*Abbreviations: NFR = Nomenclature for Reporting; NMVOC = non-methane volatile organic compound; NOx = nitrogen oxides, NH3 – ammonia*

***a*** *For a description of source categories, see the EMEP/EEA air pollutant emission inventory guidebook 2013, EEA Technical report No. 12/2013 (Luxembourg, Publications Office of the European Union, 2013). Available from http://www.eea.europa.eu/publications/emep-eea-guidebook-2013*

***b*** *This adjustment was approved in 2015. However significant revisions had been applied to the methodology, and the EMEP bureau decided to elevate it to a full review process.*

Quantitative information on submitted adjustments and its impact on national total emissions is provided in country reports (informal documents to EMEP SB)

# Adjustment review 2016 –organization

- Technical coordination and support for the 2016 review was provided by CEIP, review meeting was organized at EEA facilities
- The adjustment review was performed in parallel with the stage 3 review
- The ERT assessed the **2016 adjustment applications**, and checked reported **adjustments that were approved prior 2016**
- Each sector was reviewed by **two independent sectoral experts**

- The expert review team (ERT) was composed of a:
  - *lead reviewer,* Chris Dore (**United Kingdom of Great Britain and Northern Ireland)** and *8 sectoral experts*:
  - Giorgos Melios, transport (**European Union** (EU))
  - Jean-Marc Andre, transport (**France**);
  - Dirk Wever, stationary combustion (**Netherlands**)
  - Mette H. Mikkelsen, agriculture (**Denmark**);
  - Yvonne Pang, transport; Ben Pearson, stationary combustion and Jim Webb, agriculture (**United Kingdom**).
  - Juan Jose Rincon Cristobal, agriculture (**Spain**)

  - **Belgium and Finland** supported S3 review

# Review of 2016 applications - AERT recommendations to the EMEP SB

| *Country* | *Sector* | *NFR14* | *Pollutant* | *Years* | *ERT recommendation* |
|---|---|---|---|---|---|
| Germany | Road transport | 1A3bi-iv | $NO_x$ | 2010–2014 | Accept |
| Germany | Agriculture | 3Da2c, 3I | $NO_x$ | 2010–2014 | Accept |
| Germany | Agriculture | 3Da2c, 3I | $NH_3$ | 2010–2014 | Accept |
| | | | | | |
| Luxembourg | Agriculture | 3B, 3De | $NO_x$ | 2010–2014 | Accept |
| Luxembourg | Agriculture | 3B, 3De | NMVOC | 2010–2014 | Accept |

- *Applications made by two Parties (Germany and Luxembourg) in 2016 for adjustments were assessed by two independent sectoral experts*
- *In both cases the ERT determined that additional information was needed from Parties to enable a sufficiently detailed review.*
- *Both Parties provided additional information, to allow the ERT to recommend acceptance.*

# Reporting of **approved** adjustments

- **Granted adjustment needs to be updated and presented in years following the successful application until adjustment is terminated**
  1. Annex I_ Emission reporting template, row 143 – total sum per pollutant
  2. Annex VII_ Adjustment summary template – per sector and pollutant
  3. **NEW :** Short statement (Word or pdf file) declaring that *the methods/ emission factors / activity data* are the same as in the year when adjustment has been approved. If any of reported number is not identical with the approved one, Party has to provide short explanations along with the statement - (agreed during last EMEP SB meeting)

**Reporting of information on adjusted emissions in no way removes the mandatory requirement for Parties to report unadjusted emissions**

# Adjustment cases prior to 2016 (kt)

| *Ref. numb.* | *Pollutant* | *NFR14* | *2010* | *2011* | *2012* | *2013* | *2014* |
|---|---|---|---|---|---|---|---|
| Belgium-A | $NO_x$ | 1A3bi-iv | -48.20 | -47.95 | -47.33 | -47.58 | -45.16 |
| Belgium-B | $NO_x$ | 3B | -0.38 | -0.37 | -0.37 | -0.37 | -0.37 |
| Belgium-B | NMVOC | 3B | -28.24 | N/A | N/A | N/A | N/A |
| Belgium-C | $NO_x$ | 3Da | -12.84 | -12.45 | -12.08 | -11.98 | -11.88 |
| Belgium-C | NMVOC | 3De | -1.22 | N/A | N/A | N/A | N/A |
| **Belgium total** | **$NO_x$** | | **-61.41** | **-60.77** | **-59.78** | **-59.93** | **-57.41** |
| **Belgium total** | **NMVOC** | | **-29.46** | **N/A** | **N/A** | **N/A** | **N/A** |
| Denmark-01 | $NH_3$ | 3Da1 | -3.67 | -3.42 | -3.30 | -3.75 | -3.73 |
| Denmark-02 | $NH_3$ | 3De | -5.41 | -5.42 | -5.40 | -5.37 | -5.45 |
| Denmark-03 | NMVOC | 3B | -35.44 | -35.31 | -35.66 | -35.88 | -35.74 |
| **Denmark total** | **$NH_3$** | | **-9.08** | **-8.84** | **-8.70** | **-9.13** | **-9.18** |
| **Denmark total** | **NMVOC** | | **-35.44** | **-35.31** | **-35.66** | **-35.88** | **-35.74** |
| Finland | $NH_3$ | 1A2gviii, 1A4 | -0.48 | -0.37 | -0.39 | -0.35 | -0.36 |
| Finland | $NH_3$ | 1A3bi-iv | -1.53 | -1.44 | -1.34 | -1.26 | -1.21 |
| **Finland total** | **$NH_3$** | | **-2.01** | **-1.81** | **-1.73** | **-1.61** | **-1.57** |
| France | NOx | 1A3bi-iv | -146.91 | -153.00 | -150.10 | -151.20 | -145.55 |
| **France total** | **NOx** | **1A3bi-iv** | **-146.91** | **-153.00** | **-150.10** | **-151.20** | **-145.55** |
| Germany | NOx | 3B, 3De | -110.82 | -121.23 | -116.88 | -119.62 | -122.14 |
| Germany | NMVOC | 3B, 3De | -201.23 | -200.69 | -204.13 | -208.68 | -211.04 |
| **Germany total** | **NOx** | | **-110.82** | **-121.23** | **-116.88** | **-119.62** | **-122.14** |
| **Germany total** | **NMVOC** | | **-201.23** | **-200.69** | **-204.13** | **-208.68** | **-211.04** |
| Luxembourg | NOx | 1A3bi-iv | -2.70 | -2.87 | -2.97 | -3.02 | -3.02 |
| **Luxembourg total** | **NOx** | | **-2.70** | **-2.87** | **-2.97** | **-3.02** | **-3.02** |
| Spain | NOx | 1A3bi,iii | -126.97 | -121.42 | -111.22 | N/A | N/A |
| **Spain total** | **NOx** | | **-126.97** | **-121.42** | **-111.22** | **N/A** | **N/A** |

# Adjustment cases prior to 2016

- The ERT assessed the reported data and concluded that the adjustments met all of the requirements laid out in Executive Body decision 2012/12 and in the Technical Guidance, and therefore recommended that the EMEP Steering Body **ACCEPT** all adjustments as reported by countries *Belgium, Denmark, Finland, France, Germany, Luxembourg and Spain*

CEIP developed the **online DB system**, which allows more efficient check of approved adjustments.

**Reporting of approved adjustments**

Select country: **ALL** BE DE DK ES FI FR LU

Select submission year: ALL 2014 2015 **2016**

Select pollutant: **ALL** NH3 NMVOC NOx

**Aggregated sum of adjustments**

| ISO2 | Subm. year | Pollutant | Unit | Inventory year | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 2010 | 2011 | 2012 | 2013 | 2014 |
| BE | 2016 | NMVOC | kt | -29.460 | | | | |
| BE | 2016 | NOx | kt | -61.410 | -60.770 | -59.780 | -59.930 | -57.410 |
| DE | 2016 | NH3 | kt | -40.030 | -49.850 | -51.460 | -61.140 | -66.120 |
| DE | 2016 | NMVOC | kt | -201.227 | -200.692 | -204.130 | -208.678 | -211.044 |
| DE | 2016 | NOx | kt | -262.257 | -268.272 | -262.133 | -262.294 | -250.413 |
| DK | 2016 | NH3 | kt | -9.078 | -8.844 | -8.698 | -9.126 | -9.180 |
| DK | 2016 | NMVOC | kt | -35.436 | -35.308 | -35.663 | -35.875 | -35.736 |
| ES | 2016 | NOx | kt | -126.970 | -121.420 | -111.220 | | |
| FI | 2016 | NH3 | kt | -2.002 | -1.807 | -1.732 | -1.615 | -1.569 |
| FR | 2016 | NOx | kt | -146.911 | -153.000 | -150.097 | -151.199 | -145.554 |
| LU | 2016 | NMVOC | kt | -2.383 | -2.323 | -2.284 | -2.351 | -2.397 |
| LU | 2016 | NOx | kt | -3.521 | -3.748 | -3.794 | -3.867 | -3.869 |

http://webdab1.umweltbundesamt.at/cgi-bin/adj.pl?p_iso2B=ALL&p_subm_yearB=2016&p_pollutantB=ALL

# Recommendations from the reviewers

- The "Declaration on consistent reporting of approved adjustments" provided by countries on voluntary bases was evaluated by the reviewers, and was considered to be helpful in making the assessment process more efficient. **It is recommended that EMEP SB recommends countries to submit such statement along with Annex VII on annual base.**

- In **the road transport sector** there is a need for Parties to provide transparent **information about the EFs** that have been assumed, particularly when making the "original" emission estimates for years which are beyond the EFs available in the original models. For this calculation, the reviewers consider it **best practice to continue to use Euro4 EFs**, as this reflects the information that was available at the time, rather than EFs which were established after 2010 emission ceilings were agreed.

- **It is important that Parties continue to use the same reporting format for information on previously approved adjustments** i.e. using the same units and the same level of aggregation across the emission source sectors. This is so that the data handling systems can process the information provided in different submissions in a consistent way.

# Lessons learnt

- Some Parties **mix** regular improvements of inventories with adjustments
- Some countries again **mixed reporting** of *approved adjustments* and new *adjustment applications*
  - **Appendix B1** (to Annex II**)–** reporting of **new** applications
  - **Annex VII** – reporting of **approved** applications
- ***Timeliness of reporting - crucial***, *desk review starts in April-May, status report for EMEP SB is due by the end of June, country* review reports have to be finalised before EMEP SB meeting in Sept
- ***Notification form*** - *Parties shell provide* information on planned new adj. application per sector and pollutant by 15 February

- **The 2016 review represents further improvement in the review**. The updated and more comprehensive guidance assisted the Parties and the ERT with the review process although additional information was still required by the ERT from several countries.

# Summary

- **Review of adjustment applications is resource demanding procedure** (1 LR, 8 sectoral experts, technical support of CEIP and of UNECE secretariat)
- There is a need regularly **update guidance and templates for reporting and review of adjustment applications,** particularly for the transport sector and for transparent reporting (Adjustment Guidance, including Annex II for quantitative information). Parties have to follow EB/SB decisions and CEIP website.
- Provision of **transparent documentation and timely feedback** by Parties is crucial for the review process.
- **In 2016 there has been a change in the demands on the ERT and CEIP.** There are considerably more previously approved adjustments to review, and fewer new applications.
- However, with three years to draw on, **the review process is now considerably more established, and also more efficient**.

**ERT recommends to accepted all of the 2016 submitted adjustment applications and continue to accept 2014 and 2015 applications**