

## **EUROPEAN COMMISSION**

**EUROSTAT** 

Directorate E: Sectoral and regional statistics

Unit E-5: Energy

# REVISION POLICY FOR ENERGY STATISTICS

# - GENTLEMEN'S AGREEMENT-

28 OCTOBER 2015

# 1. Legal basis

Although revisions are a normal phenomenon which can contribute to improve data quality, there are no specific guidelines on revisions in Regulation (EC) No 1099/2008<sup>1</sup> on energy statistics or in the Directive 2008/92/EC<sup>2</sup> on gas and electricity prices charged to industrial end-users.

The legal basis for the development of a revision policy stems from the Article 16 (4) of Regulation (EC) No 223/2009 on European Statistics<sup>3</sup>.

Additionally, the main principles for a revision policy in Energy Statistics are in line with ESS Code of Practice and the ESS guidelines on revision policy for Principal European Economic Indicators (PEEIs), which represent an important step towards the harmonisation of revision policies within the ESS.

Recently, the Council of the European Union committed to "fully implementing and rigorously enforcing existing energy legislation". In this context, and also in line with the Quality Assurance Framework of the European Statistical System, Eurostat will monitor timing, reasons and nature of revisions. Furthermore, reasons for the reconciliation of statistical data from different time periods (e.g. monthly and annual) will also be analysed.

# 2. Scope of the Revision Policy for energy statistics

This Revision Policy applies to the following data collections managed by Eurostat:

<u>Annual statistics of energy</u> (Regulation (EC) No 1099/2008)<sup>4</sup>: They cover the production, transformation and consumption of numerous energy commodities (oil and petroleum products, coal and solid fuels, electricity and heat, natural gas, renewables & wastes and nuclear energy).

<u>Monthly statistics of energy</u> (Regulation (EC) No 1099/2008): Monthly statistics classified as the so-called M-2 or M-3, depending on their timeliness. They are cover mainly the supply and only partially the transformation side.

<u>Short-term statistics of energy</u> (Regulation (EC) No 1099/2008): Short-term statistics classified as the so-called M-1 data collections. They cover the supply and very limited the transformation side.

**Energy prices** (Directive 2008/92/EC)<sup>5</sup>: Price-data of natural gas and electricity are collected, processed and published twice a year.

# 3. General principles of the revision policy

The general principles concern procedures, timing, reasons, size and nature of revisions.

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<sup>&</sup>lt;sup>1</sup> http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32008R1099

<sup>&</sup>lt;sup>2</sup> http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1425570331358&uri=CELEX:32008L0092

<sup>&</sup>lt;sup>3</sup>http://eur-lex.europa.eu/legal-

<sup>4</sup> http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32008R1099

<sup>&</sup>lt;sup>5</sup> http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1425570331358&uri=CELEX:32008L0092

## 3.1. Types of revisions and revision modalities

**Revisions**<sup>6</sup> are changes in data published in the Eurostat database. Revisions can appear due to changes in the national collection systems and/or methodologies, discovery of errors, etc. Revisions follow standard, well-established and transparent procedures and it is recommended that they are pre-announced to Eurostat in a formalised way, indicating:

- the reasons for the upcoming revision,
- the reference year, the years that will be revised and also
- the size and category of expected revision.

Revisions are often classified as routine or major revisions. **Routine revisions** are changes in published data which are related to the regular data production process (e.g. estimated values for missing responses are replaced by reported figures). **Major revisions** are changes, often substantial, due to one of the following reasons: availability of a new source that is only collected at long intervals, changes in concepts, methodology, definitions and/or classifications used to produce the series. Major revisions have impact on European aggregates and even on policies and are considered as serious changes in the published data. For the purpose of the determination of the size and categorisation, revisions in energy statistics are classified into the categories **small, medium and big.** Eurostat proposes a method to classify revisions (planned or unplanned), as well as the number, size and significance of revisions.

## **Box 1: Categories of revisions**

**Small revisions** are usually related to regular data production process e.g. estimated values which are replaced after late delivery of real data, discovery of minor classification or processing errors, etc. In case minor revisions are planned (routine revisions), they should be collected and published at agreed intervals (e.g. annual, quarterly).

**Medium revisions** could have a similar nature as the previous category, but either the number of revised data points is higher or the impact of the revision on the data is more significant.

**Big revisions** are those with a significant impact on national or European aggregates. They can be related to new geographical breakdown, back cast or break in series, change in concepts and definitions, new classifications, new manuals or availability of new sources. Eurostat will assess the convenience of publishing these revisions as soon as possible (independently of the release calendar), together with appropriate explanations if necessary.

Pre-announcements need to be communicated a certain period in advance to Eurostat, depending on the type of revision (planned or unplanned), the type of data collection and the revised periods. The revision pre-announcement form (Annex III) shall be used to transmit the pre-announcement of revisions to Eurostat, according to the modalities indicated in Table 1.

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<sup>&</sup>lt;sup>6</sup> Accordingly, this Revision policy does not apply to modifications of the data during the validation process (prior to publication).- the so-called "validation Ping-Pong" Revisions are not included in Regulation (EC) 1099/2008 on energy statistics, nor in Directive 2008/92/EC on energy prices. As a result, the user could expect to see final data which will never change after the legal deadline. However, practice proves that, from a statistical point of view, it is very unlikely to have fixed data. Indeed, data may need to be revised for several reasons. The best possible way to combine these two realities (perspective from the user vs perspective from the statistician) is to have a clear and transparent revision policy stating and communicating under which modalities data will be revised and published

The pre-announcement periods indicated in Table 1 apply to planned revisions (e.g. changes in data collection methods, definitions, classifications, etc.). Unplanned revisions (e.g. late discovery of errors) should be pre-announced by the country as soon as they realise that the revision will take place.

**Table 1: Revision modalities** 

TYPE OF DATA COLLECTION	REV. PROCEDURE WITHOUT PRE- ANNOUNCEMENT, NO EXPLANATION BY DEFAULT	REV. PROCEDURE WITH PRE-ANNOUNCEMENT AND EXPLANATION BY DEFAULT	EXCEPTIONAL REV. PROCEDURE WITH EXTENDED PRE- ANNOUNCEMENT AND EXPLANATION BY DEFAULT
Annual data collections	Revisions up to 2 years before the reported year (t-1 and t-2)	For periods previous to 2 years before the reported year.  Pre-announcement for planned revisions: 1 month	
M-2 & M-3 data collections (monthly)	Revisions up to 2 months before the reported month (t-1 to t-2).	For periods from 2 to 24 months before the reported month  Pre-announcement for planned revisions: 1 month	Exceptional procedure for periods previous to 24 months before the reported month.  Pre-announcement for planned revisions:: 3 months
M-1 data collections (short-term monthly)	Revisions up to 2 months before the reported month (t-1 and t-2).	For periods from 2 to 12 months before the reported month  Pre-announcement for planned revisions: 1 month	Exceptional procedure for periods previous to 12 months before the reported month.  Pre-announcement for planned revisions: 3 months
Electricity and natural gas prices for household and industrial consumers	Revisions up to 2 semesters before the reported semester (t-1 and t-2).	For periods previous to 2 semesters before the reported semester  Pre-announcement for planned revisions: 1 month	

**Note:** "t" refers to the reported period, which is the period to be reported in the next legal transmission deadline. The pre-announcement periods indicated in the table apply to planned revisions.

Even if these revisions do not require a default explanation, Eurostat can ask for clarifications and justifications at any stage. Explanations on the reasons for the revision are always welcome in the remarks sheet of the questionnaire.

For exceptional revisions: These revisions, which shall remain exceptional, will be accepted when justified by major changes in the statistical system, availability of new significant data or other equivalent reasons.

#### 3.2. Revision/release calendar

A revision and release calendar is a crucial element of a revision policy as it allows the users to better understand changes in data. A coordinated release/revision calendar is not only important for users; it ensures the consistency of data on national and European level, as well as helps to improve consistency across international organisations. To this end, it is recommended that Member States align their national revision/release calendars to the dates indicated in the table below.

The revision/release calendar indicated in Table 2 is implemented in energy statistics.

Table 2: Revision/release calendar

QUESTIONNAIRE AND DATA FLOW	DATE OF FIRST RELEASE	DATE OF ADDITIONAL RELEASES
Annual data collections	31 January	End of April – Beginning of May
M-2 & M-3 data collections (monthly)	mid of each month	Usually within a week and at the latest with the next release
M-1 data collections (short-term monthly)	mid of each month	Usually within a week and at the latest with the next release
Energy prices	Each May and November	Usually within a week and at the latest with the next release

In the case of major revisions with a significant impact on EU aggregates, Eurostat will assess the convenience of publishing the revised data urgently before the next planned release.

#### 3.3 Transmission of revisions to Eurostat

All revisions and revision pre-announcements need to be transmitted through the *Single Entry Point for Data Transmission*, in accordance with Eurostat policy<sup>7</sup>. Currently, eDAMIS<sup>8</sup> is the Single Entry Point.

#### 3.4 Revision analysis

Revision analysis is performed to analyse revision trends in order to improve the quality of statistical products and processes. It shall be carried out depending on the statistical product and according to best practices; existing guidelines<sup>9</sup> (see also Box 2).

This analysis concerns the frequency, size and causes of the revisions and is performed at regular intervals (e.g. once every two years in the Energy Statistics Working Group).

https://circabc.europa.eu/sd/d/6fb1880a-b88d-4c5e-b7f6-a3242f5e2dc2/Single-Entry-Point\_2007-10-11-rev.pdf

<sup>8</sup> https://webgate.ec.europa.eu/edamis/

Like the updated version of the ESS Handbook of Quality Reporting (on its 2014 edition): <a href="http://ec.europa.eu/eurostat/documents/3859598/6651706/KS-GQ-15-003-EN-N.pdf/18dd4bf0-8de6-4f3f-9adb-fab92db1a568">http://ec.europa.eu/eurostat/documents/3859598/6651706/KS-GQ-15-003-EN-N.pdf/18dd4bf0-8de6-4f3f-9adb-fab92db1a568</a>

## 3.5 Implementation

To guarantee a sufficient level of transparency, clarity and certainty in the development and implementation of the revision policy, this document will be published.

This Revision Policy shall be implemented during a transitional period based on a gentlemen's agreement. In this period, the revision policy will be tested, adjusted and improved in collaboration with countries. It will be followed by the future amendment of the relevant legislation once the revision policy has been incorporated into national practice.

Proposed modifications of the revision policy will be discussed in the Energy Statistics Working Group, in order to incorporate further improvements and developments elaborated collaboratively between Eurostat and Member States.

#### References

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- OECD/Eurostat Guidelines on Revisions Policy and Analysis, http://www.oecd.org/std/oecdeurostatguidelinesonrevisionspolicyandanalysis.htm

# Box 2: Indicators to characterise revisions (type, number, size)

This section includes the approach to determine the type, number and size of revisions by means of several indicators or coefficients, which are defined below.

# 1. The following coefficient is calculated by the country and provided in the revision pre-announcement form:

<u>Coefficient of revisions 1</u>: This indicator compares the number (#) of data points (variables) that are revised in the new transmission as regards the number of data points in the questionnaire that are applicable to the country.

Coefficient of revisions 
$$_{1}=\frac{\#\ of\ data\ points\ revised}{\#\ of\ applicable\ data\ points\ in\ the\ questionnaire}\ x\ 100$$

# 2. The following coefficients will be calculated by Eurostat and used within the framework of the revision analysis and quality reporting:

<u>Coefficient of revisions 2</u>: This indicator shows the absolute number (#) of revisions (versions after publication) done by a country to a certain data collection. This coefficient will be used by Eurostat in the revision analysis to help determine the revision practice of each country in order to improve statistical processes (e.g. systematic revisions may signal weaknesses in the data collection or compilation systems that need to be resolved).

<u>Coefficient of revisions 3:</u> To calculate this indicator, please select the data point in each questionnaire which changes the most in absolute terms with the revision<sup>10</sup>. Compare the value of this data point with the previous published version.

Coefficient of revisions 
$$_3 = Abs \left[ \frac{Revised\ value\ of\ the\ data\ point}{Previous\ value\ of\ the\ data\ point} - 1 \right] x\ 100$$

<u>Coefficient of revisions 4</u>: This indicator defines the relative difference between the previous and the revised estimate of each data point. The direction of the revisions (e.g. the revision has a negative sign when the revision is downwards) can also be identified:

$$Coefficient \ of \ revisions \ _{4} = \left[\frac{Revised \ estimate \ (X_{k}) - previous \ estimate(X_{k-1})}{previous \ estimate(X_{k-1})}\right] x 100$$

Other possible coefficients may be analysed and discussed within the Energy Statistics Working Group and used within the framework of the revision analysis and quality reporting, to improve consistency with existing ESS recommendations and practices in the area of revisions and quality reporting.

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<sup>&</sup>lt;sup>10</sup> For the selection of the aggregate, take into account the aggregates that significantly contribute to the revision.