



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ENERGY  
DIRECTORATE-GENERAL FOR CLIMATE ACTION

# **Reporting Guidelines**

## **Dataflow 4: Progress towards targets EE**

### **&**

## **Dataflow 17: Additional reporting obligations EE**

**under Regulation (EU) 2018/1999 on Governance of the Energy Union  
and Climate Action  
Implementing Regulation 2022/2299  
Annex 4 & 17**

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## 1. INTRODUCTION

### 1.1. This document

From 2023, reporting on ‘Progress towards targets in energy efficiency’ & ‘Additional reporting obligations in the area of energy efficiency’ is part of the national energy and climate progress reports (Article 17) under Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

This document provides both technical and thematic guidance for the relevant reporting obligation and the use of the e-platform. The purpose of the guidelines is to support Member States in reporting this information by outlining:

- How to utilise the reporting platform
- Background information and examples for the information required,
  - *Technical guidelines* – facilitating how to report.
  - *Thematic guidelines* – facilitating what to report.
- Information on finalising reporting,
- The quality checks carried out.

Ultimately, the goal is to improve the quality of the information reported by Member States and disseminated through the e-platform, by making it more timely, transparent, complete, consistent, comparable, coherent and accurate.

These reporting guidelines have been prepared by the European Commission, the EEA and its ETC-CM to provide guidance and support to the Member States for this transition to the new reporting obligation and reporting tool.

Some additional and background information is annexed to this document:

- Annex 1: Reporting roles.

### 1.2. Legal background

According to Article 17(1) of the [Regulation \(EU\) 2018/1999](#) (Governance Regulation), by 15 March 2023, and every two years thereafter, each Member State shall report to the Commission on the status of implementation of its integrated national energy and climate plan (NECP) by means of an integrated national energy and climate progress report (NECPR) covering all five dimensions of the Energy Union.

The recently adopted Commission [Implementing Regulation \(EU\) 2022/2299](#) ‘Laying down rules for the application of Regulation (EU) 2018/1999 of the European Parliament and of the Council as regards the structure, format, technical details and process for the integrated national energy and climate progress identifies all the reporting requirements within 23 Annexes.

### 1.3. Overall process of reporting

Each Member State shall submit their NECPR by **15 March 2023**, and every two years thereafter.

The NECPR will be submitted through the e-platform established by the Commission<sup>1</sup>. Different elements of the progress reporting will be submitted through one of the following systems: Reportnet 3 and ReportENER.

This reporting obligation will be reported in [Reportnet](#).

#### 1.4. Pre-filling, post-filling, pre-loading

##### 1.4.1. Colour-coding

The Implementing Regulation uses colour-coding for the fields in each table. The below table indicates the meaning of the different colours.

Descriptive text (white/or light grey)	Text describing the purpose of the table / fields (not to be filled by MS)
N/A	Not applicable (not to be filled by MS)
To be filled in by MS	Information to be completed by MS: can be mandatory (if applicable/available) or voluntary
Pre-filling	<p>Information that is already provided by the MS to the Commission through another reporting exercise that finishes substantially before the deadline for the progress report, and if complete, fully covers the requirements of the NECPR, or that is determined by EU legislation. Therefore, MS will not submit the information again as part of the NECPR.</p> <p>Data cannot be altered in the progress reporting, but through the primary process established for the source data.</p> <p><b>ReportNet specific</b> Prefilled data will not appear directly in a reporting system, however, information on prefilled data will be accessible in the relevant export templates.</p>

##### 1.4.2. The process for pre-filling, pre-loading and post-filling of data

The following tables of these dataflows rely (partially) on data that is pre-filled.

Table	Type of filling	Source(s) of data
Annex 4, table 1, fields 6 and 7	Pre-filling	Eurostat energy balances

In the paragraphs below, the process for integrating this data in the progress report is described.

<sup>1</sup> Article 28 of the Regulation (EU)2018/1999 on the Governance of the Energy Union and the Climate change. E-platform available at: [Reporting system for EU countries | European Commission \(europa.eu\)](#).

#### 1.4.2.1. Eurostat energy balances

Reporting countries should transmit energy data as specified in Annex B of Regulation (EC) No 1099/2008 on energy statistics. The latest version of annual energy questionnaires that should be used for official data transmissions and accompanying reporting instructions can be found at: [Annual - Energy - Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1).

The Commission plans to pre-fill relevant tables in the e-platform in February in the year the NECPR is due (year X, first reporting in 2023), with data that were disseminated by Eurostat by the end of January in year X. In general this means data collections in the energy domain with mandatory reporting deadlines by the end of November (year X-1). To enable pre-filling, reporting countries need to respect mandatory deadlines and ensure high quality of reported statistics, with no gaps and no errors in the reported data.

Data cannot be altered in the progress reporting, but through the primary process established for the source data.

If the data is submitted by the Member State through the primary process, the reporting obligation under Article 17 will also be considered fulfilled.

### 1.5. Dynamic references to years

Many tables in the annexes to the Implementing Regulation make dynamic references to years, which depend on the year of reporting.

The table below summarizes the dynamic references used in the annexes, and the years they refer to in the first two reporting exercises in 2023 and 2025.

Note: in the e-platform, the years themselves, rather than the dynamic references will be displayed.

**For the first reporting cycle in 2023, X-3 (i.e., 2020) reporting is not required but can be included by MS, where available and applicable.**

Dynamic reference	Respective year in first reporting (2023)	Respective year in second reporting (2025)
X	2023	2025
X-1	2022	2024
X-2	2021	2023
X-3	2020	2022
t	2025	2030
t+5	2030	2035
t+10	2035	2040
t+15	2040	2045
t+20	2045	2050
t+25	2050	2055



## 2. REPORTNET 3

### 2.1. Intro

The Governance Regulation specifies in Article 28 that the e-platform should be used for reporting on all dimensions of the Energy Union by Member States and the Commission, assisted by the European Environment Agency.

The e-platform consists of different elements, notably “ReportNet 3: and “ReportENER”. For the dataflow(s) described in this document, ReportNet 3 is used.

Reportnet 3 (<https://reportnet.europa.eu/>) is the next generation platform for reporting environmental data to the EEA and also host several reporting tasks for the European Commission. Reportnet 3 is a centralized e-Reporting platform, aiming at simplifying and streamlining the data flow steps across all environmental domains. The system acts as a one-stop-shop for all involved stakeholders.



### 2.2. Logging in

User authentication is carried out on the **EU login** platform, hence you need to have an EU login account before you can be authenticated for Reportnet 3 access.

**How to log in.** In this guide you will find the steps for the following:

- Regular login process: Where you already have an EU account and you have logged on to Reportnet 3 before,
- Creating an EU login account: Where you do not have an EU account,
- Logging on for the first time: Where you have an EU account but you have not logged on to Reportnet 3 before.

For a visual guide, please check [this document](#).

#### A. Regular login to Reportnet 3.0

1. Navigate to Reportnet 3 and click on the “Login” button at the top right,
2. You will be redirected to authenticate using EU login,
3. With a successful login you will be redirected back to Reportnet 3,
4. You will see the dataflows you have authorisation to access.

#### B. Creating an EU login

EU Login (<https://webgate.ec.europa.eu/cas>) is the entry gate to sign in to the Reportnet 3 platform as well as different European Commission services and/or other systems. EU

Login verifies your identity and allows recovering your personal settings, history and access rights in a secure way.

1. If you do not have EU account with the entered email, you will see the message 'User not found' and you will need to create an account,
2. Click on the "Create an account" link on the EU Login sign-in page,
3. Fill in the provided form with your personal details,
4. If the form is correctly filled in, an e-mail is sent to the address you provided in order to verify that you have access to it. If you cannot find the e-mail, check your spam or junk folder,
5. Click the link in the e-mail or copy/paste it in the address bar of your browser,
6. Select and confirm a password and click on "Submit",
7. You now have an EU Login account and can proceed with the login for Reportnet 3 from the home page,
8. As this is the first time you will login in to the Reportnet 3 platform, there are some additional steps to follow (next section) after you have been authenticated.

### C. First time login to Reportnet 3.0

1. If this is your first login to Reportnet 3, after you have been authenticated by EU login, you will be asked to fill a form. Username should just be your email address,
2. You are now logged in. However you will not see any dataflows the first time you log in. You will be sent an email when the reporting is open for your credentials.

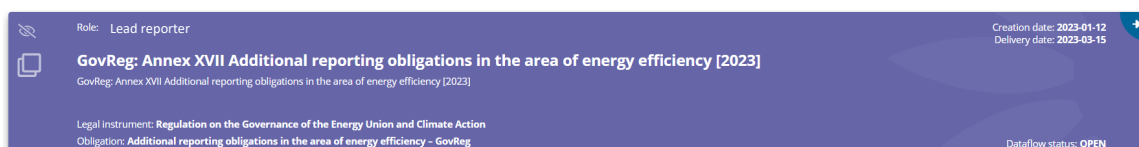
#### If you need support please contact the EEA:

- Governance Regulation helpdesk: [govreg@eea.europa.eu](mailto:govreg@eea.europa.eu)
- Reportnet helpdesk: [helpdesk@reportnet.europa.eu](mailto:helpdesk@reportnet.europa.eu)

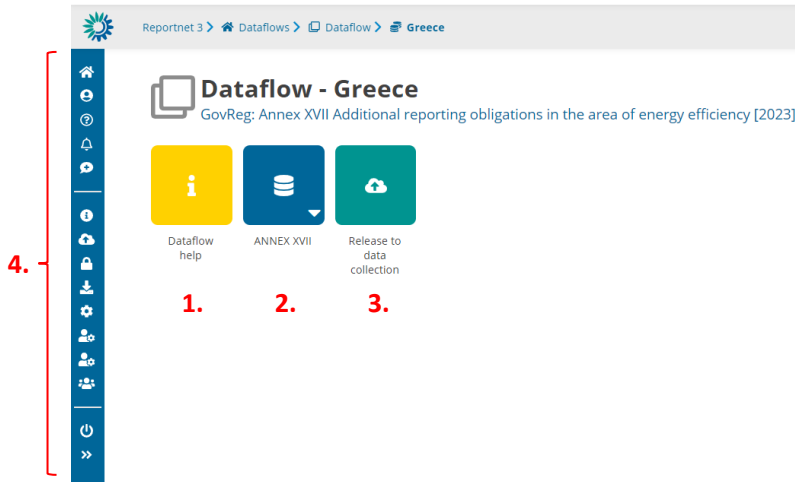
### 2.3. Dataflow overview

Once you are successfully logged-in to Reportnet 3 you will see the **dataflows assigned to you**. If this is your only reporting obligation in Reportnet, you will only see this obligation. If you are a reporting on multiple obligations they should all appear here.

For historic dataflows, please note that these will still be visible in Reportnet. All dataflows will be labelled with the relevant reporting year (i.e., the first submission will be 2023). Furthermore all dataflows in grey are closed.



Once selecting the relevant dataflow, you will see the **reporting window** for the dataflow.



The reporting window is made up of several key elements:

1. Dataflow help,
2. Data schema(s),
3. Data submission,
4. Navigation bar.



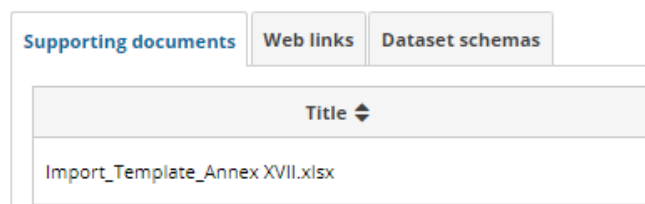
**1. Dataflow help** is presented on the far left (in yellow), and provides relevant helpful documentation, including these guidelines.

Inside dataflow help, useful documentation will be made available, including:

- **Supporting documents:**
  - These guidelines,
  - Excel import documentation.
- **Web links:**
  - Video trainings (technical and thematic) via YouTube,
  - Legislation,
  - Other possible relevant materials.
- **Dataset schemas:**
  - Technical descriptions of the schemas

## Dataflow help

NECPR Annex XVII EE 21112022 V2



**2. Data schemas** (in blue) are the location where data can be reported. Please see Sections 3 and 4 for detailed guidance on how to report. Different categories exist depending on the dataflow. For this dataflow the relevant data schemas include:

- **Data:** where reported data is provided,

- **Attachments:** where additional information (technical report and other supporting documentation) can be attached.



**3. Data submission features** (in green) are located on the right in the reporting window. For more information please see Section 4. These include:

- **Release to data collection:** to submit your final reported information.
- **Confirmation receipt:** is available only after the data is submitted.

1. **4. The blue navigation bar** on the left provides many key pieces of information for reporters. Important icons include:




2.



1. **Help:** which explains the main elements at each level.
2. **Notifications:** stores and monitors what happens in the dataflow. Downloaded files are also available here.



**If the system doesn't react click refresh to reload page**

 Refresh

## 2.4. Organizing the reporting network

Lead reporters are officially nominated and are the ones that can submit data. They are also responsible for adding and managing supporting reporters (see guidance below).

Supporting reporters can upload and modify data in the system but cannot add other reporters or officially submit data.

For more information on the roles in the reporting process, please see Annex 1 of this document.

## Roles in Reportnet 3



### Lead Reporter(s)

Up to two per country per reporting obligation.

Formally nominated.

Able to submit final data or reports.



### Supporting Reporter(s)

Unlimited number per country per reporting obligation.

Managed by the Lead Reporter(s).



A lead reporter can nominate as many supporting reporters as is necessary. This is achieved by selecting the **manage reporters** icon in the blue bar.

Lead reporters are responsible to maintain the reporting network.

## 2.5. Technical details of reporting

This section provides the technical guidance required for reporting in Reportnet 3. This includes:

- Use of import/export templates,
- Use of Reportnet tabular data view.

To ensure that Member States can report as easily as possible, the recommended workflow for this dataflow is as follows.

1. Download import/export template,
2. Input data in the template in excel,
3. Upload data to Reportnet,
4. Validate data (see Section 4),
5. Edit data in Reportnet (tabular data) only for minor updates (align data in input template),
6. Submit data when final data is ready.



**Video trainings on the technical details of reporting are available through the EEA's YouTube channel: [Reportnet 3 tutorials](#)**

### 2.5.1. Use of import templates

A dedicated excel import file has been prepared for these dataflows, to ensure the ease-of-use for Member States, and is the recommended method for filling in this dataflow. It

is important to note that if this method is used, attention should be paid to **always updating the excel document** utilised to ensure future data is not overwritten.



**Note: The import and export templates for this dataflow are both useable as import templates (see Section 2.5.4).**

#### 2.5.1.1. Import template - downloading

The excel import template can be **downloaded within the dataflow help icon** in the dataflow's reporting window. The file is called Import\_Template\_Annex IV for Annex 4 and Import\_Template\_Annex XVII for Annex 17.



#### 2.5.1.2. Overview of excel import template

The document is designed to look and feel similar to the legislation you are accustomed to. The tables are grouped into worksheets, to make all the reporting information easily accessible. **Some tables have been modified, or some additional worksheets have been included** to provide context or more structured information. These cases are justified and explained in great detail in Section 3.

The template additionally contains an **instructions page** which provides:

- Basic instructions on understanding the dataflow,
- Links to guidance,
- Contents of the excel,
- Counter of answers,
- Information on pre-filling.

#### **Annex IV Excel import templates includes the following worksheets:**

- Instructions,
- Table 1: National contribution and indicative trajectory for primary and final energy consumption,
- Table 2: Milestones and progress indicators of the long-term strategy for the renovation (LTRS) of the national stock of residential and non-residential buildings – building stock,
- Table 2\_Other: Other milestones and progress indicators of the long-term strategy for the renovation (LTRS) of the national stock of residential and non-residential buildings – building stock,
- Table 3: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – renovation rates,

- Table 4: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – other indicators,
- Table 5: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings - the contributions to the Union's energy efficiency targets,
- Table 6: Update of other national objectives on energy efficiency as reported in the integrated national energy and climate plan.

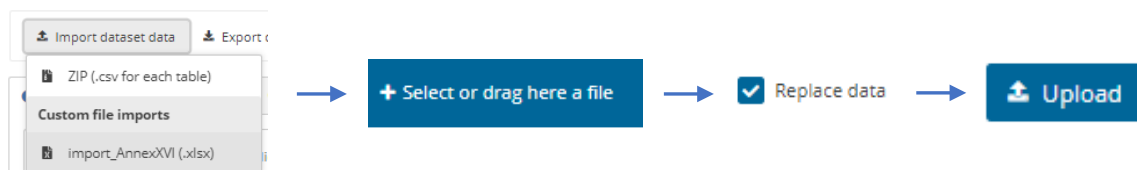
### Annex XVII Excel import templates includes the following worksheets:

- Instructions,
- Table 1 – Progress in each sector and reasons why energy consumption remained stable or was growing in final energy consumption sectors,
- Table 2 – Total building floor area of the buildings with a total useful floor area over 250 m2 owned and occupied by the Member States' central government that, on 1 January in year X-2 and X-1, which did not meet the energy performance requirements referred to in Article 5(1) of Directive 2012/27/EU,
- Table 3 – Number of energy audits carried out in in year X-3 and X-2. In addition, the total estimated number of large companies in their territory to which Article 8(4) of Directive 2012/27/EU is applicable and the number of energy audits carried out in those enterprises in the year X-3 and X-2,
- Table 4 – Applied national primary energy factor for electricity and a justification, if this is different from the default coefficient referred to in footnote (3) of Annex IV to Directive 2012/27/EU,
- Table 5 – Number and floor area of new and renovated nearly zero-energy buildings (1) in year X-2 and X-1, as provided in Article 9 of Directive 2010/31/EU, where necessary based on statistical sampling,
- Table 6 – Internet link to the website where the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU can be accessible.

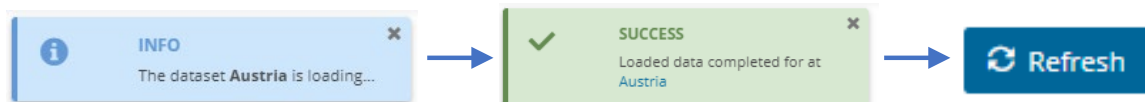
#### 2.5.1.3. Importing data into Reportnet

To upload your data, firstly go into the **data schema** of Reportnet.

Click on **Import dataset data** (do not confuse with *Import table data*) and select **Import\_Annex\_IV(.xlsx)** for Annex 4 or **Import\_Annex\_XVII(.xlsx)** for Annex 17. You will be prompted to select or drag your excel template and click **Upload**. If you are re-uploading an Excel file it is recommended to click before on *Replace data* to remove the old data and avoid duplication of records.



The file will upload and you will see a **blue info notification** on the top-right corner informing you the dataset is loading. Now the system will take the data from the Excel templates and manipulate it so it fits the structure of Reportnet. Once the dataset has been loaded, you will see a **green success notification** (this should only take a few minutes). Once the data is successfully loaded in, click the button **Refresh** in the top-right corner to display your data.

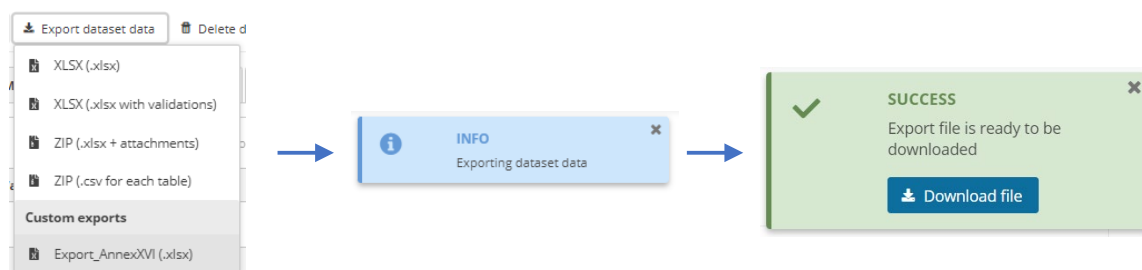


### 2.5.2. Special workflow with export templates

This dataflow includes pre-filled data information, that is **not directly reported via Reportnet**, but via other platforms (see Section 1.3.2). Therefore a special workflow has been created to allow access/use of this information in the most efficient means for Member States in their reporting obligations.

Excel export templates can be downloaded from Reportnet to include the pre-filled information that is useful for reporting. To download the excel export template, enter the data schema and click on the **Export dataset data** icon. Here you select the custom export **Export\_AnnexIV(.xlsx) for Annex IV** or **Export\_AnnexXVII(.xlsx) for Annex XVII**.

Once selected Reportnet will prepare your download, collating pre-filled data (and additional data entered into Reportnet if you have already entered/imported data). You will be prompted by a **blue information icon**. Once successful, a **green success icon** will appear with a download link, click here to download your export template.



If the **green success icon disappears**, or you close it, then **the download can still be accessed under the notifications icon** in the blue bar. Here you will find a success notification titled “External reporting export file generated successfully”, with a download file action to the right. This is the link that allows you to download the export file.



This document will look nearly identical to the import template (see Section 2.5.3). The main difference is that cells linked to pre-filling, post-filling, and aggregations are now colour coded according to the legislation (see Section 1.3.1).

You may now edit the data linked to green cells and re-import with the export template into Reportnet (see Section 2.5.3).





It is **not possible** to import pre-filled, post-filled, or aggregate data into Reportnet. If there are issues with the non-Reportnet data, please follow up with the relevant data owner (see Section 1.3).

### 2.5.3. Use of Reportnet tabular data view

Once inside a data schema, you will have access to the **tabular data format** of your data within Reportnet 3. This is how your data is processed in the system and released into a database. The data schema is organised by table, which can be selected at the top of the data table.

**Data can be manually edited** within Reportnet by clicking on the relevant cell. However, it is highly recommended that if edits are made in Reportnet directly that the accompanying excel is updated accordingly. This can be achieved via utilising the export functionality (see Section 2.5.4).

Please note that this information **only includes data reported to Reportnet 3** (green cells in the legislation). Data coming from other reporting obligations (i.e., pre-filled / post-filled / aggregated) will not be displayed here. On how to access this data see Section 2.5.4.



The **attachments schema** can be used to add supporting documentation to these dataflows, allowing you to clarify further details on the data provided. This is a useful tool for adding information not requested within the tables.

### 3. THEMATIC GUIDELINES FOR REPORTING – ANNEX IV

This section provides the step-by-step guidelines for reporting. This includes visual guide **of how and where** to report in Reportnet (via excel template), as well as information on the **purpose of reporting** and guidance on **what to report**. This is structured as follows:

- Purpose,
- Guidance (screenshot and data format included),
- Good examples (where available),
- Not recommended (where available),
- Level of obligation (Mandatory, Mandatory if applicable, Mandatory if available, Voluntary).

For tables that will be pre-filled based on other reporting sources, or for annexes that more straightforward, simplified guidance is provided.

#### 3.1. Introduction

This section provides guidance for reporting information on the energy efficiency dimension (Article 3), according to Annex IV of the Implementing Regulation. This includes:

- Table 1: National contribution and indicative trajectory for primary and final energy consumption,
- Table 2: Milestones and progress indicators of the long-term strategy for the renovation (LTRS) of the national stock of residential and non-residential buildings – building stock ,
- Table 2\_Other: Other milestones and progress indicators of the long-term strategy for the renovation (LTRS) of the national stock of residential and non-residential buildings – building stock,
- Table 3: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – renovation rates,
- Table 4: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – other indicators,
- Table 5: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings - the contributions to the Union's energy efficiency targets,
- Table 6: Update of other national objectives on energy efficiency as reported in the integrated national energy and climate plan.

The reporting requirements derive from Article 21 of the Energy Union Governance Regulation which is specifically dedicated to NECPR reporting on energy efficiency and requires Member States to include information on implementation of national trajectories, objectives and targets including long-term renovation strategies in accordance with Article 2a of Directive 2010/31/EU.

### 3.2. Annex IV, Table 1: National contribution and indicative trajectory for primary and final energy consumption

Reporting element	Specification	Unit	Indicator	
Definition of the 2030 savings contribution <sup>(1)</sup>	M	n/a	1	
Description of the 2030 contribution and indicative trajectory from 2021-2030	M	n/a	2	
Value of the savings contribution 2029	M	3		
Translation into absolute level of PEC	M	ktoe	4	
Translation into absolute level of FEC	M	ktoe	5	
			X-3 <sup>(4)</sup>	X-2
Progress towards indicative trajectory 2021-2030 in PEC (2)	M	ktoe	6	
Progress towards indicative trajectory 2021-2030 in FEC (2)	M	ktoe	7	
Baseline GDP level, if the contribution is set as an intensity target	M <sub>iap</sub>	Million-euro, chain-linked volumes <sup>(3)</sup>	8	
General comments on the national contribution and indicative trajectory for primary and final energy consumption <sup>(5)</sup>	V	9		

#### 3.2.1. FIELD 1: Definition of the 2030 savings contribution.

##### Purpose

The purpose of this field is for the Member State to report their definition of the 2030 savings contribution in accordance with their NECP through the selection of a specific option (i.e., primary energy consumption; final energy consumption; primary energy savings; final energy savings; energy intensity.).

##### Guidance, including format of the data

Data format: drop-down menu, single selection from the following options:

- primary energy consumption;
- final energy consumption;
- primary energy savings;
- final energy savings;
- energy intensity.

**Level of obligation:** Mandatory

#### 3.2.2. FIELD 2: Description of the 2030 contribution and indicative trajectory from 2021-2030.

##### Purpose

The purpose of this field is for the Member State to describe the 2030 contribution and indicative trajectory from 2021-2030 in accordance with their NECP.

### **Guidance, including format of the data**

Data format: text

**Level of obligation:** Mandatory

#### 3.2.3. *FIELD 3: Value of the savings contribution 2030.*

### **Purpose**

The purpose of this field is for the Member State to document the value of the savings contribution in 2030 in accordance with their NECP.

### **Guidance, including format of the data**

Data format: text for unit, number (decimal) for indicator.

### **Good examples**

The savings contribution in 2030 can for example be calculated as follows:

- In case it is first defined in terms of maximum level of primary energy consumption, then the value of the savings contribution corresponds to primary energy savings and can be calculated as the difference in the primary annual energy consumption in 2030 between a reference scenario (e.g. PRIMES2020) and the target scenario (i.e. the absolute level of primary energy consumption indicated in field 4)
- In case it is first defined in terms of maximum level of final energy consumption, then the value of the savings contribution corresponds to final energy savings and can be calculated as the difference in the final annual energy consumption in 2030 between a reference scenario (e.g. PRIMES2020) and the target scenario (i.e. the absolute level of final energy consumption indicated in field 5)
- In case it is first defined in terms of primary energy savings, then the value of the savings contribution corresponds to primary energy savings and is directly the target adopted by the Member State.
- In case it is first defined in terms of final energy savings, then the value of the savings contribution corresponds to final energy savings and is directly the target adopted by the Member State.
- In case it is first defined in terms of primary or final energy intensity, then the value of the savings contribution corresponds to either primary or final energy savings. The target in energy intensity needs to be translated in absolute level of energy consumption (as indicated in field 4 for primary energy consumption, or field 5 for final energy consumption). Then the savings contribution can be calculated as the difference in annual energy consumption in 2030 between a reference scenario (e.g. PRIMES2020) and the target scenario (i.e. the absolute level of primary or final energy consumption indicated in field 4 or field 5)

**Level of obligation:** Mandatory

3.2.4. *FIELD 4: Translation into absolute level of PEC.*

**Purpose**

The purpose of this field is for the Member State to translate the value of the savings contribution 2030 (field 3) into absolute level of PEC.

**Guidance, including format of the data**

Data format: number (decimal)

**Level of obligation:** Mandatory

3.2.5. *FIELD 5: Translation into absolute level of FEC.*

**Purpose**

The purpose of this field is for the Member State to translate the value of the savings contribution 2030 (field 3) into absolute level of FEC.

**Guidance, including format of the data**

Data format: number (decimal)

**Level of obligation:** Mandatory

3.2.6. *FIELDS 6 and 7: Progress towards indicative trajectory 2021-2030 in PEC and FEC.*

These fields will be pre-filled based on Eurostat energy balance data when available. Details on this process can be found in the introduction of this guidelines (Section 1). Only fields that are not pre-filled are further explained in this document.

3.2.7. *FIELD 8: Baseline GDP level, if the contribution is set as an intensity target.*

**Purpose**

The purpose of this field is for the Member State to report the Baseline GDP level, if the contribution is set as an intensity target.

**Guidance, including format of the data**

Data format: number (decimal)

Reference year 2015 (at 2015 exchange rates).

**Level of obligation:** Mandatory, if applicable

3.2.8. *FIELD 9: General comments on the national contribution and indicative trajectory for primary and final energy consumption.*

**Purpose**

The purpose of this field is for the Member State to provide additional explanation on the national contribution and indicative trajectory for primary and final energy consumption, including their underlying methodology. Additionally, reporters can upload supporting documents to Reportnet via the Attachments schema.

**Guidance, including format of the data**

Data format: text

**Level of obligation:** Voluntary

**3.3. Annex IV, Table 2: Milestones and progress indicators of the long-term strategy (LTRS) for the renovation of the national stock of residential and non-residential buildings – building stock**

Specification	Number of buildings <sup>(1)</sup>			Total floor area (m <sup>2</sup> ) <sup>(2)</sup>			Primary energy use of buildings (TJ) <sup>(3)</sup>			Final energy use of buildings (TJ) <sup>(3)</sup>			Direct GHG emissions in buildings (tCO <sub>2e</sub> )			Total GHG emissions in buildings (tCO <sub>2e</sub> )		
	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2
Residential buildings	M <sub>20</sub>	M <sub>30</sub>	M <sub>50</sub>	M <sub>20</sub>	M <sub>30</sub>	M <sub>50</sub>	M <sub>20</sub>	M <sub>30</sub>	M <sub>50</sub>	M <sub>20</sub>	M <sub>30</sub>	M <sub>50</sub>	M <sub>20</sub>	M <sub>30</sub>	M <sub>50</sub>	M <sub>20</sub>	M <sub>30</sub>	M <sub>50</sub>
Of which worst performing buildings <sup>(5)</sup>		1			2			3			4			5			6	
Non-Residential buildings																		
Of which worst performing buildings																		
Public buildings <sup>(6)</sup>																		
Of which worst performing buildings																		

According to Article 2a of the Energy Performance of Buildings Directive (2010/31/EU – EPBD), Member States must develop a long-term renovation strategy (LTRS) which “shall set out a roadmap with measures and domestically established measurable progress indicators, with a view to the long-term 2050 goal of reducing greenhouse gas emissions in the Union by 80-95 % compared to 1990, in order to ensure a highly energy efficient and decarbonised national building stock and in order to facilitate the cost-effective transformation of existing buildings into nearly zero-energy buildings. The roadmap shall include indicative milestones for 2030, 2040 and 2050, and specify how they contribute to achieving the Union’s energy efficiency targets in accordance with Directive 2012/27/EU”.

The Commission’s recommendation (EU) 2019/786 on building renovation <sup>(2)</sup>, provides a table which presents a framework for defining indicators and milestones. Member States are free to define their milestones and indicators according to national specificities, keeping in mind the availability of consistent and reliable data.

All Member States submitted their LTRS using different types of indicative milestones for 2030, 2040 and 2050. The Commission’s Staff Working Document SWD (2022) 375 final “Analysis of the national long-term renovation strategies” <sup>(3)</sup>, includes an

<sup>(2)</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1557992239852&uri=CELEX:32019H0786>, section 2.3.2.

<sup>(3)</sup> <https://energy.ec.europa.eu/system/files/2022-12/SWD-Analysis-of-2020-LTRS.PDF>

assessment of the data provided by Member States for the different categories requested by Article 2a of the EPBD.

The objective of Table 2 of Annex IV is to collect information on basic indicators related to the national building stocks that in most cases are already reported in the national strategies.

### 3.3.1. *FIELD 1: Number of buildings*

#### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State's building stock in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

The national LTRS already provide a reasonably detailed description of the buildings stock. However, Member States are encouraged to use more detailed and up-to-date data if available. The number of buildings should be based on national data from statistical offices or on data collected for administrative purposes (e.g. cadastre, construction permitting, etc.). Data and statistics for construction activity (e.g. new construction rate and demolition rate) or statistical sampling could also be used. While dedicated statistics on buildings is the best way to ensure high quality information on buildings, in the absence of such statistics, estimates and modelling could be used.

Additional sources of information on the number of residential buildings are the database of the EU Project Odyssee-MURE, providing timeseries collected through the energy agencies and to which public bodies can obtain free access at request <sup>(4)</sup>, and Hotmaps EU project <sup>(5)</sup> where a detailed panorama of the EU residential and non-residential building stock is estimated at the level of year 2016. Data from censuses represents a valuable resource for mapping the residential sector. The above sources can be combined in order to provide a comprehensive and faithful building stock representation.

Data about public buildings owned and occupied by central administration and public bodies should be already available from the implementing and reporting process under Article 5 of Directive 2012/27/EU and from the energy performance certificates for public buildings, which are required by Article 12 of Directive 2010/31/EU.

#### **Guidance, including format of the data**

The Member States should report on the number of buildings for the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

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<sup>(4)</sup> [Energy Efficiency Indicators | Odyssee | Energy efficiency in Europe \(odyssee-mure.eu\)](#)

<sup>(5)</sup> [data · master · Hotmaps / Building stock analysis · GitLab](#)

Definitions:

**Building** means a roofed construction having walls, for which energy is used to condition the indoor climate in line with (Directive 2010/31/EU, Article 2(1)). Annex I of the same Directive defines, for the purpose of the calculation of energy performance of buildings, the following classification of categories: (a) single-family houses of different types; (b) apartment blocks; (c) offices; (d) educational buildings; (e) hospitals; (f) hotels and restaurants; (g) sports facilities; (h) wholesale and retail trade services buildings; (i) other types of energy-consuming buildings (Directive 2010/31/EU, Annex I point 5.).

The definition above mostly refers to an individual building for the scope of the EPBD. However, it is important to clarify that the data needed for Table 2 should reflect the whole building stock.

The number of buildings is already reported in most of the national LTRSs and Member States can use these data.

Residential and non-residential buildings include single family buildings and apartment blocks (multi apartment buildings) as a whole and not the individual number of apartments (building units). For example, if an apartment block has 10 apartments (building units) this should count for 1 building and not for 10 buildings. Member States should provide the number of building units as well (this should be reported in the section “*Other*”).

Non-residential buildings include offices, educational buildings, hospitals, hotels and restaurants, sports facilities, wholesale and retail trade services buildings and other types of energy-consuming buildings.

In the case of buildings of mixed use, then the dominant use in terms of floor area should characterise the type of building. For example, a building with shops in the ground floor of 500 m<sup>2</sup> and apartments in the upper floors of 1000 m<sup>2</sup> means that the building is a multi-apartment building.

**Worst performing building** should be described in line with the national long-term renovation strategy. The Commission’s Recommendation (EU) 2019/786 on building renovation provides examples to determine the worst-performing segments of the national building stock: (a) setting a specific threshold, such as an energy performance category (e.g. below ‘D’); (b) using a primary energy consumption figure (expressed in kWh/m<sup>2</sup> per year); or even (c) targeting buildings built before a specific date (e.g. before 1980).

With regards to **public buildings**, as mentioned in the Commission’s Recommendation (EU) 2019/786 on building renovation, the LTRS should target all public buildings, namely buildings that are owned and/or occupied by public bodies of all levels, i.e. central government, local or regional authorities including buildings that are owned but not necessarily occupied by them. MS may use additional criteria, such as % of buildings (e.g. 15% worst performing).

Data format: number (integer)

**Level of obligation**: Mandatory, all cells under FIELD 1 are marked as M<sub>iaV</sub> ‘mandatory if available’.



The “mandatory if available” (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.3.2. *FIELD 2: Total floor area*

#### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State’s total building floor area in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

#### **Guidance, including format of the data**

The Member States should report on the total floor area (m<sup>2</sup>) for the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

**Total floor area** reported in (m<sup>2</sup>) is the area used as reference size for the assessment of the energy performance of a building, calculated as the sum of the useful floor areas of the spaces within the building envelope specified for the energy performance assessment.

The definition above mostly refers to an individual building for the scope of the EPBD. However, it is important to clarify that the data needed for Table 2 should reflect the building stock covered by energy legislation at Member State level.

The total floor area of the building stock is already reported in most of the national LTRSs and Member States could use these data.

Additional sources of information on floor area of residential and non-residential buildings are the database of the EU Project Odyssee-MURE, providing timeseries collected through the energy agencies and to which public bodies can obtain free access at request <sup>(6)</sup> and Hotmaps EU project <sup>(7)</sup> where it is presented a detailed panorama of the EU residential and non-residential building stock at the level of year 2016. Data from censuses represents a valuable resource for mapping the residential sector. The above sources can be combined in order to create a meaningful stock model.

Data on floor area of public buildings owned and occupied by central administration and public bodies should be already available from the implementing and reporting process under Article 5 of Directive 2012/27/EU and from the energy performance certificates for public buildings, which are required by Article 12 of Directive 2010/31/EU.

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<sup>(6)</sup> [Energy Efficiency Indicators | Odyssee | Energy efficiency in Europe \(odyssee-mure.eu\)](#)

<sup>(7)</sup> [data · master · Hotmaps / Building stock analysis · GitLab](#)

Please also refer to the Guidance under FIELD 1 for further definitions.

Data format: number (decimal)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.3.3. *FIELD 3: Primary energy use of buildings*

#### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State's total primary energy use of buildings in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

#### **Guidance, including format of the data**

The Member States should report on the Primary energy use of buildings (TJ) on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

Primary energy use of buildings reported in TJ should be as considered in the energy performance calculation of buildings defined by Directive 2010/31/EU: '*primary energy*' means energy from renewable and non-renewable sources which has not undergone any conversion or transformation process.

The definition above mostly refers to an individual building for the scope of the EPBD. However, it is important to clarify that the data needed for Table 2 should reflect the building stock covered by energy legislation at Member State level.

The primary energy use/consumption of the building stock is already reported in most of the national LTRSs and Member States could use these data.

Primary energy use of the building sector should be based on national sources and relevant estimates and take into consideration the Eurostat statistics approximating energy use in buildings.

As an example, at Eurostat is available the disaggregated final energy consumption in households by end-use type <sup>(8)</sup> (heating, domestic hot water, cooling etc.), including by type of fuel per type of end-use. A fair proxy is to translate this final energy consumption in primary by applying the corresponding primary energy factors as defined at national level such as for the cost optimal calculation methodology on which the Member States have to report periodically to the Commission (under the Energy Performance of Buildings Directive 2010/31/EU).

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<sup>(8)</sup> table [NRG\\_D\\_HHQ](#) at Eurostat database [Statistics | Eurostat \(europa.eu\)](#)

Odyssee-Mure database <sup>(9)</sup> provides estimates of final energy consumption in services sector by type of business and energy.

Another possible approach is to extrapolate the average primary energy consumption from the Energy Performance Certificates which are available in national databases. This approach may be more appropriate especially in countries where the Energy Performance Certificates are issued for a significant part of the building stock. Member States may complement this data, with information from the cost-optimal calculation reports.

Renewable energy generated onsite and exported to the grid may be discounted based on a clear and transparent methodology.

With regards to **worst-performing buildings** Member States may rely on data and statistics from the Energy Performance Certificates (EPCs) databases, which could also provide the relevant data for the average energy use and potentially the GHG emissions. Based on average figures, extrapolation for the total consumption could be calculated based on statistics from EPCs.

Data on public buildings owned and occupied by central administration and public bodies should be already available from the implementing and reporting process under Article 5 of Directive 2012/27/EU and from the energy performance certificates for public buildings, which are required by Article 12 of Directive 2010/31/EU.

Please also refer to the Guidance under FIELD 1 for further definitions.

Data format: number (decimal).

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

#### 3.3.4. *FIELD 4: Final energy use of buildings*

##### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State's final energy consumption of buildings in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

##### **Guidance, including format of the data**

The Member States should report on the Final energy use of buildings on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

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<sup>(9)</sup> [Energy Efficiency Indicators | Odyssee | Energy efficiency in Europe \(odyssee-mure.eu\)](#)

The final energy consumption of households by end-use type for residential buildings (households) is reported by Member States in ESTAT <sup>(10)</sup> and national statistics.

For non-residential the energy balances include the final energy consumption for the services sector. From this, Member States should estimate and deduct the consumption of public outdoor lighting as well the electricity consumption for equipment that doesn't fall under EPBD scope (e.g. appliances).

Dedicated statistics on buildings is the best way to ensure high quality information on buildings. In the absence of such statistics, estimates and modelling could be used. In the absence of more detailed statistics/information that are able to identify buildings as a separate category, reporting entities can use the following approximation from Eurostat:

“Buildings = Service sector + Household sector”.

As regards the “service sector”, it includes both non-residential and public buildings. In terms of NACE rev. 2 (see below), this approach means to sum sections from G to U (equivalent to the sum of divisions from 45 to 99).

In energy statistics, this general approximation is sometimes used for indicators. However, it has major limitations that need to be taken into account (and can be generalised beyond energy statistics into other statistical domains):

- It excludes energy consumption in industrial buildings (e.g. those classified in energy statistics under transformation sector, energy sector and final energy consumption in industry sector, agriculture, forestry and fishing). Please also refer to the definition of ‘buildings’ under FIELD 1.
- It includes certain outdoor activities, such as street lighting or swimming pool heating. The exact scope/magnitude of this limitation depends on the definition of activities to be covered for building statistics and those to be excluded.
- Statistics in some countries might not be able to properly assign all activities to different sectors, such as charging of electric cars at home to be reported under transport instead of under households (buildings).
- Prosumers: flows related to auto-produced and auto-consumed energy (mostly electricity and heat, micro CHP generation, off-grid solar panels, heat pumps capturing ambient heat, etc.) are difficult to fully capture in statistics and might be estimated, modelled or omitted. With the future increase of energy transformation and generation at the end-user level, this might be a significant issue. Technology already exists today and decreasing costs might result its widespread use and thus state authorities should already make an effort to correctly monitor it.

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<sup>(10)</sup> table NRG\_D\_HHQ at Eurostat database [Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

## Broad Structure of NACE Rev. 2

Section	Title	Divisions
A	Agriculture, forestry and fishing	01 – 03
B	Mining and quarrying	05 – 09
C	Manufacturing	10 – 33
D	Electricity, gas, steam and air conditioning supply	35
E	Water supply; sewerage, waste management and remediation activities	36 – 39
F	Construction	41 – 43
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	45 – 47
H	Transportation and storage	49 – 53
I	Accommodation and food service activities	55 – 56
J	Information and communication	58 – 63
K	Financial and insurance activities	64 – 66
L	Real estate activities	68
M	Professional, scientific and technical activities	69 – 75
N	Administrative and support service activities	77 – 82
O	Public administration and defence; compulsory social security	84
P	Education	85
Q	Human health and social work activities	86 – 88
R	Arts, entertainment and recreation	90 – 93
S	Other service activities	94 – 96
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	97 – 98
U	Activities of extraterritorial organisations and bodies	99

Please also refer to the Guidance under FIELD 1 for further definitions.

Data format: number (decimal)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.3.5. FIELD 5: Direct GHG emissions in buildings

#### Purpose

The purpose of this field is for the Member State to report on and establish the Member State's Direct GHG emissions in buildings in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

#### Guidance, including format of the data

The Member States should report on the direct GHG emissions in buildings (tCO<sub>2e</sub>) on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

Definitions:

#### Direct GHG emissions in buildings

In the context of the NECP reporting GHG emissions (direct and total) relate to operational GHG (linked to energy use, direct and indirect), not to embodied carbon.

Once the Member States estimate the final (FEC) and primary (PEC) energy consumption, the GHG emissions are easy to be calculated: the direct GHG emissions are the FEC for direct use of fossil fuels multiplied by the default emission factors related to net calorific values (in t CO<sub>2</sub>/TJ) for each fuel as from Commission Regulation (EU) No 601/2012, annex VI (that largely mirrors the amended 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Energy, chapter 2: stationary combustion).

The direct emissions of the residential/households and services sectors (hence the building stock) are reported annually to EEA as part of the GHG inventory <sup>(11)</sup>. This reflects well the direct emissions of buildings since energy use outside the scope of the Energy Performance of Buildings Directive is generally electricity from the grid for the ICT and appliances.

As an example, the emissions related to gas demand (e.g. from a boiler) will be the equivalent of the annual energy consumption multiplied by the corresponding fuel emission factor.

Please also refer to the Guidance under FIELD 1 for further definitions.

Data format: number (decimal)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.3.6. *FIELD 6: Total GHG emissions in buildings*

#### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State's total GHG emissions in buildings in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

#### **Guidance, including format of the data**

The Member States should report on the total GHG emissions in buildings (tCO<sub>2e</sub>) on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings

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<sup>(11)</sup> [EEA greenhouse gases - data viewer — European Environment Agency \(europa.eu\)](#)

- Of which worst performing buildings

Definitions:

Total GHG emissions in buildings

Total GHG emissions are the sum of direct emissions calculated in the previous field and indirect emissions.

The indirect emissions, i.e. GHG emissions related to electricity or heat from district heating consumption, can be calculated by multiplying the average GHG emission intensity of electricity and heat generation in the given country or region with the corresponding electricity or heat from district heating consumption of the building stock.

There are few ways to estimate these GHG intensities based on the energy mix and in principle they should be available at country levels from the GHG emission inventories or from other reporting processes. A simple way is to take the emission intensity of electricity generation updated annually by EEA (12) and IEA. For heat generation, it is also possible to calculate and use the emissions intensities of the district heating serving each part of the considered building stock.

Please also refer to the Guidance under FIELD 1 for further definitions.

Data format: number (decimal)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

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(12) [Greenhouse gas emission intensity of electricity generation — European Environment Agency \(europa.eu\)](http://europa.eu)

**3.4. Annex IV, Table 2\_Other: Other milestones and progress indicators of the long-term strategy (LTRS) for the renovation of the national stock of residential and non-residential buildings – building stock**

Specification	Other 1 <sup>(1)</sup>			Other 2 <sup>(1)</sup>			Other 3 <sup>(1)</sup>		
	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>	M <sub>lav</sub>
<b>Indicator</b>	<b>1</b>								
<b>Unit</b>									
<b>Values</b>	2020	X-3	X-2	2020	X-3	X-2	2020	X-3	X-2
Residential buildings	<b>2</b>								
Of which worst performing buildings <sup>(3)</sup>									
Non-Residential buildings									
Of which worst performing buildings									
Public buildings <sup>(4)</sup>									
Of which worst performing buildings									
Other (please specify replacing this text)									

This table is a follow up of Table 2. It replaces the field “Other” located on the right end of Table 2 in the Implementing Regulation. It is presented here as a separate table for ease of reporting and data processing.

The purpose of this table is for Member States to report on any other indicators as presented in the national long-term renovation strategy. Only current quantifiable indicators should be reported here. Future milestones should be presented in Table 5.

**3.4.1. Field 1: Other**

**Purpose**

The purpose of this field is for the Member State to report the name and unit of any other indicators as presented in the national long-term renovation strategy.

**Guidance, including format of the data**

This field requires reporting in 2 different elements:

- 1. Indicator: The name of the indicator should be reported. Data format: free text
- 2. Unit. Data format: free text

Other indicators could reflect the number of buildings and/or total floor area (m2) per energy performance class, per construction period, per building size, per climatic zone, the number of Energy Performance Certificates per building type and/or per energy performance class, an overview of the capacities in the construction, the share of heating system in the building sector heating system type, etc. Other externalities could also be used to provide a better picture of the buildings sector, such as investments for the renovation of the existing stock, construction’s share in GDP, health issues, etc.



The name of the other indicator needs to clarify what this aims to achieve. The name must be comprehensible and ideally should only consist of a few words.

If an indicator has been included into a legal act (law, decree, regulation, etc.), it is recommended to report its name as it appears in that act, preferably in English.

Where Member States have more than one indicator, each one will be added into a separately (e.g. under Other 1, Other 2...).

If the indicator is linked to a particular milestone as reported in Table 4, reporters are urged to specify it in this field (e.g. by using the same name).

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.4.2. *Field 2: Values*

#### **Purpose**

The purpose of this field is for the Member State to report on the value of any other indicators as presented in the national long-term renovation strategy. These should be reported in three historical years. The years are identified as 2020, X-3 and X-2, where X is the reporting year.

#### **Guidance, including format of the data**

The Member States should report other indicators on the following categories, as applicable:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings
- If the indicator refers to a building category different to the ones above, reporters can specify the scope in the cell marked as “*Other (please specify replacing this text)*”

Please refer to the Guidance under Table 2 -FIELD 1 for further definitions on building categories.

Data format: number (decimal)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.5. Annex IV, Table 3: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – renovation rates

Specification	Number of buildings renovated		Total floor area renovated (m <sup>2</sup> ) <sup>(1)</sup>		Renovation rate <sup>(1)</sup>		Deep renovation equivalent rate <sup>(1)</sup>	
	X-3	X-2	X-3	X-2	X-3	X-2	X-3	X-2
	M <sub>low</sub>	M <sub>low</sub>	M <sub>low</sub>	M <sub>low</sub>	M <sub>low</sub>	M <sub>low</sub>	V	V
Residential buildings	Light	1	2		3		4	
	Medium							
	Deep							
	Total							
Residential buildings - worst performing	Light							
	Medium							
	Deep							
	Total							
Non-residential buildings	Light							
	Medium							
	Deep							
	Total							
Non-residential buildings - worst performing	Light							
	Medium							
	Deep							
	Total							
Public buildings <sup>(4)</sup>	Light							
	Medium							
	Deep							
	Total							
Public buildings - worst performing	Light							
	Medium							
	Deep							
	Total							

This table refers to ‘energy renovations’. An energy renovation means the change of one or more building elements (building envelope and technical building systems), having the potential to significantly affect the calculated or metered amount of energy needed to meet the energy demand associated with a typical use of the building, which includes, inter alia, energy used for heating, cooling, ventilation, hot water and lighting.

Under national and EU funded renovation programmes (e.g. from Cohesion Funds, ERDF, RRP, national programmes and financing schemes), the energy savings should be estimated. Member States may collect all these info and sum-up savings under each type of renovation depth. All ‘energy renovations’ should be included, not only those related to the use of financial support schemes. Data on the number of buildings renovated can also be derived from administrative databases (e.g. on renovation permits or changes in EPC databases), information on the economic activity of the building sector, sampling, etc.

#### 3.5.1. FIELD 1: Number of buildings renovated

##### Purpose

The purpose of this field is for the Member State to report on and establish the Member State’s Number of buildings renovated in three historical years. The years are identified as X-3 and X-2, where X is the reporting year.

##### Guidance, including format of the data

The Member States should report on the number of buildings renovated on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings

- Of which worst performing buildings

Each of the above categories is divided into 4 different indicators called renovation depths which should be reported for each of the years. These indicators are ‘Light’, ‘Medium’, ‘Deep’ and ‘Total’.

Definitions:

**For Building, Worst performing building & public building** see the explanation for Table 2, field 1 above.

**Renovation depths** are the ratio between primary energy saved and total primary energy before renovation of the respective part of the stock. They are defined on the basis of primary energy savings:

- light ( $3\% \leq x \leq 30\%$  savings);
- medium ( $30\% < x \leq 60\%$  savings); and
- deep - a renovation which transforms a building or building unit
  - (a) before 1 January 2030, into a nearly zero-energy building
  - (b) as of 1 January 2030, into a zero-emission building.

To determine the renovation rates specific figures are needed for the average energy savings of each renovation depth in order to have consistent data on the deep renovation equivalent rate. The above definition for deep renovation cannot always be easily applied for the reporting and therefore deep renovation may be considered as a renovation that generates savings > 60%. In the absence of adequate data, Member States may also use the methodology and data of the European Commission’s “*Comprehensive study of building energy renovation activities and the uptake of nearly zero-energy buildings in the EU (2019)*”<sup>(13)</sup>, which provides the average energy savings for each renovation depth per Member State.

Data format: number (integer)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.5.2. *FIELD 2: Total floor area renovated (m2)*

#### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State’s total building floor area renovated in three historical years. The years are identified as X-3 and X-2, where X is the reporting year. The renovation rates and depths do not refer to individual buildings but to the whole renovated building stock.

#### **Guidance, including format of the data**

The Member States should report on the total renovated floor area of the buildings on the following categories:

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<sup>(13)</sup> <https://op.europa.eu/en/publication-detail/-/publication/97d6a4ca-5847-11ea-8b81-01aa75ed71a1/language-en/format-PDF/source-119528141>

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

Each of the above categories is divided into 4 different indicators called renovation depths should be reported for each of the years. These indicators are ‘Light’, ‘Medium’, ‘Deep’ and ‘Total’.

Definitions:

**Total floor area** reported in [m<sup>2</sup>] is the area used as reference size for the assessment of the energy performance of a building, calculated as the sum of the useful floor areas of the spaces within the building envelope specified for the energy performance assessment.

Please also refer to the Guidance under FIELD 1 for further definitions.

Data format: number (decimal)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

### 3.5.3. *FIELD 3: Renovation rate*

#### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State’s renovation rate in three historical years. The years are identified as X-3 and X-2, where X is the reporting year. The renovation rates and depths do not refer to individual buildings but to the whole renovated building stock.

#### **Guidance, including format of the data**

The Member States should report on the renovation rate of the buildings on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

Each of the above categories is divided into 3 different indicators called renovation depths to be reported for each of the years. These are ‘Light’, ‘Medium’ and ‘Deep’.

Definitions:

**Renovation rate** refers to the cumulated affected building floor area [m<sup>2</sup>] of all buildings that underwent an energy renovation in historic calendar years X-3 or X-2, for different renovation depths, divided by the total floor area [m<sup>2</sup>] of the building stock in the same period.

Please also refer to the Guidance under FIELD 1 and 2 for further definitions.

Data format: number (percentage)

**Level of obligation:** Mandatory, if available (i.e. Member States have to submit only if such information is available to them at the time of the submission of the biennial progress report).

#### 3.5.4. *FIELD 4: Deep renovation equivalent rate*

##### **Purpose**

The purpose of this field is for the Member State to report on and establish the Member State's renovation rate in certain calendar years. The years are identified as X-3 and X-2, where X is the reporting year. The renovation rates and depths do not refer to individual buildings but to the whole renovated building stock.

##### **Guidance, including format of the data**

The Member States should report on the deep renovation equivalent rate of the buildings on the following categories:

- Residential buildings
- Of which worst performing buildings
- Non-Residential buildings
- Of which worst performing buildings
- Public buildings
- Of which worst performing buildings

This metric is to be recorded for the Total of renovation depths only.

**Deep renovation equivalent rate** equalises/weights the renovation rates at deep renovation depth and can be calculated by the following formula:

Equivalent deep renovation rate = [(light renovation depth)\*(light renovation rate) + (medium renovation depth)\*(medium renovation rate) + (deep renovation depth)\*(deep renovation rate)] / (deep renovation depth) - all factors in %.

The light/medium/deep renovation depths are the average ratios between primary energy saved and total primary energy before renovation of the respective part of the stock - all factors in %.

As mentioned above, for the purpose of NECP reporting the different renovation depths refer to:

- light:  $3\% \leq x \leq 30\%$  savings
- medium:  $30\% < x \leq 60\%$  savings
- deep:  $> 60\%$  savings

The figures on renovation depth can be derived from various sources. Financial support schemes (e.g. Cohesion Funds, ERDF, RRP or national programmes) are a good source of information, although it is necessary to account for, that they often lead to more

ambitious renovations due to the financial support provided, compared to renovations not supported by financing schemes. Information on economic activity in the building sector, changes in EPC databases, administrative data on renovation permits, energy figures from Eurostat can provide additional elements for the analysis.

Member States may consult the methodology and data of the European Commission’s “Comprehensive study of building energy renovation activities and the uptake of nearly zero-energy buildings in the EU (2019)”.

Please also refer to the Guidance under FIELD 1, 2 and 3 for further definitions.

Data format: number (percentage)

**Level of obligation:** Voluntary

### 3.6. Annex IV, Table 4: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings – other indicators

Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings	Description	Target <sup>(1)</sup>	Target year	Progress towards target/ objective	Progress Indicator (if applicable) <sup>(2)</sup>			
					Name of indicator to monitor progress <sup>(3)</sup>	Unit	X-3	X-2
M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>	M <sub>lap</sub>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>			

#### 3.6.1. FIELD 1: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings

##### Purpose

The purpose of this field is for the Member State to provide the name of a milestone/progress indicator that is supporting the implementation of the long-term strategy for the renovation of the national stock of residential and non-residential buildings.

##### Guidance, including format of the data

The name of the milestone/progress indicator needs to clarify what this aims to achieve. The name must be comprehensible and ideally should only consist of a few words.

If a milestone has been included into a legal act (law, decree, regulation, etc.), it is recommended to report its name as it appears in that act, preferably in English.

Where Member States have more than one milestone/progress indicators, each milestone/progress indicator will be added into a separate row i.e. each row in the template represents a separate milestone/progress indicator. Please use the existing empty green rows for additional milestones/indicators. Do not insert extra rows in the table. If the existing rows are not enough to list all your milestones/indicators, please contact the EEA at [govreg@eea.europa.eu](mailto:govreg@eea.europa.eu)

Data format: text for *add further rows as needed*.

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant milestones/indicators have been set in the LTRS).

### 3.6.2. *FIELD 2: Description*

#### **Purpose**

The purpose of this field is to give context on the national milestones and provide, if necessary, any relevant information that is needed to understand the scope of the indicator, what is covered, etc.

#### **Guidance including data format**

The description should provide a condensed explanation of the milestone and how it will support the long-term strategy for the renovation of the national stock of residential and non-residential buildings in the national context.

The following questions should be answered in the short description:

- Which problem is the milestone addressing?
- What is the aim of the milestone?

Please make appropriate use of the references/links to direct users to documents and websites with a more detailed description of the indicator.

Data format: text

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant milestones/indicators have been set in the LTRS).

### 3.6.3. *FIELD 3: Target*

#### **Purpose**

The purpose of this field is for the Member State to name the Target of the milestone in order to identify the goal to be achieved.

#### **Guidance, including format of the data**

This field needs to include a description of the target in a clear and concise way. The target can be quantitative or qualitative.

Data format: text

#### **Good examples**

The Commission’s Staff Working Document SWD (2022) 375 final “Analysis of the national long-term renovation strategies”, and JRC’s report “Assessment of first long-term renovation strategies under the Energy Performance of Building Directive (Art. 2a)” present different examples of the indicative milestones selected by Member States and the relevant targets.

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant milestones/indicators have been set in the LTRS).

#### 3.6.4. *FIELD 4: Target year*

##### **Purpose**

The purpose of this field is for the Member State to record the target year that the milestones are expected to be achieved.

According to Article 2a of the Energy Performance of Buildings Directive (2010/31/EU – EPBD), Member States must develop a long-term renovation strategy (LTRS) which shall set out a roadmap with measures and domestically established measurable progress indicators, for 2030, 2040 and 2050.

##### **Guidance, including format of the data**

This field shall indicate the target year(s) which should be in line with the national LTRSs. In most cases Member States have already reported indicative milestones for 2030, 2040 and 2050. Member States should report the targets/indicative milestones for 2030, 2040 and 2050 (or for any other target year) in different rows.

Data format: number (integer)

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant milestones/indicators have been set in the LTRS).

#### 3.6.5. *FIELD 5: Progress towards target/objective*

##### **Purpose**

The purpose of this field is for the Member State to report on progress towards meeting the target outlined in FIELD 3.

##### **Guidance, including format of the data**

It is required to report on progress in the NECPR on each milestone as identified in the Member States' LTRS and based on any other relevant up-to-date information.

Progress made towards a national target/objective can be reported by providing an update on the progress made towards a specific indicator in quantitative terms or by explaining which policies or actions have been put in place which will support the achievement of the target and how these policies and actions are performing against the set milestones.

This field needs to include a description of the progress in a clear and concise way. Especially if the target is qualitative, this field should outline what is the progress made, what are the actions taken and how are the items implemented.



Together with the explanation, references to assessments and underpinning technical reports can be included as well. If relevant, reporters can provide links or upload supporting documents to Reportnet via the Attachments schema.

Data format: text

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant milestones/indicators have been set in the LTRS).

### 3.6.6. *FIELD 6: Progress Indicator (if applicable)*

#### **Purpose**

The purpose of this field is for the Member State to report on the progress indicator towards the target outlined in FIELD 3. If the target/objective is quantifiable, Member States have to provide an indication of progress, with the latest available information. Indicators for reporting are to be determined on the basis of national objectives or targets.

#### **Guidance, including format of the data**

This field requires reporting in 4 different elements:

- 1. Name of indicator to monitor progress. Data format: free text
- 2. Unit. Data format: free text
- 3. X-3. Data format: number (decimal)
- 4. X-2. Data format: number (decimal)

When describing the name of the indicator to monitor progress, Member States have to refer to a base year and value, as appropriate, if this aids in demonstrating progress.

If the indicator linked to this milestone is already detailed in Table 2 Other, please write the same indicator name here and leave the columns I-K blank.

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant national objectives and targets have been set).

### 3.7. **Annex IV, Table 5: Milestones and progress indicators of the long-term strategy for the renovation of the national stock of residential and non-residential buildings - the contributions to the Union's energy efficiency targets**

Specification	Description
Please describe how progress towards the milestones in the long-term renovation strategy contributed to achieving the Union's energy efficiency targets in accordance with Directive 2012/27/EU	1

In accordance with Article 2a paragraph 2, the LTRS must specify how the milestones for 2030, 2040 and 2050 contribute to the indicative headline target defined by Member States in accordance with Article 3 of the Energy Efficiency Directive, since buildings are a key pillar of energy efficiency policy.

### 3.7.1. FIELD 1: Description

#### Purpose

The purpose of this field is for the Member State to report on progress towards the contributions on the Union’s energy efficiency targets.

#### Guidance, including format of the data

This field shall include a description of the progress in a comprehensive way. Please describe how progress towards the milestones in the long-term renovation strategy contributed to achieving the Union’s energy efficiency targets in accordance with Directive 2012/27/EU.

Here reference should be made to the contribution of the building sector in achieving a reduction of PEC and FEC in accordance with the national target established under Article 3 of the Energy Efficiency Directive. Each MS can determine the share of the energy consumed in buildings as well as their absolute values (FEC and PEC). MSs should report on its evolution over time and how the building stock’s renovation and the improvement of its overall energy performance contribute to the achievement of the targets established under Article 3 of the Energy Efficiency Directive. The calculation of the contribution of the building sector should focus on the reductions in energy consumption (both final and primary) which can be attributed to energy renovations. Therefore, the energy consumption which relates to new constructions or energy uses outside the scope of the EPBD (e.g. for appliances) should not be included. Energy decomposition exercises could help in such analysis.

For example: a Member State has a baseline of FEC 125 ktoe and an objective of 100 ktoe, resulting in a reduction of 25 ktoe. If the FEC for existing buildings is reduced by 10 ktoe, then the contribution of the LTRS to the EED target is 40% (10 / 25 ktoe).

The methodology followed should be briefly described.

Together with the description, please make appropriate use of the references/links to direct users to documents and websites with more detailed information, if available. Reporters can also upload supporting documentation to the Attachments schema.

Data format: text

**Level of obligation:** Mandatory

### 3.8. Annex IV, Table 6: Update of other national objectives on energy efficiency as reported in the integrated national energy and climate plan

Name of national target/ objective	Description	Progress towards target/ objective <sup>(1)</sup>	Expected impacts of the set objective <sup>(2)</sup>
M <sub>iap</sub>	M <sub>iap</sub>	M <sub>iap</sub>	M <sub>iap</sub>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

As indicated in Annex I of the Governance Regulation defining the general framework for the NECPs, section 2.2(iii), Member States can report, “*where applicable, other national objectives, including long-term targets or strategies and sectoral targets, and national objectives in areas such as energy efficiency in the transport sector and with regard to heating and cooling*”. In case other national objectives on energy efficiency were reported in the NECP, the updates to these objectives should be explained in the NECPR.

### 3.8.1. *FIELD 1: Name of national target/ objective*

#### **Purpose**

The purpose of this field is for the Member State to provide the name of a national target/objective as reported in the integrated national energy and climate plan.

#### **Guidance, including format of the data**

The name of the national target/ objective needs to make clear what this aims to achieve. The name must be comprehensible and ideally should only consist of a few words.

Where applicable, other national objectives, need to include long-term targets or strategies and sectoral targets, and national objectives in areas such as energy efficiency in the transport sector and with regard to heating and cooling.

If a national target/ objective has been embedded into a legal act (law, decree, regulation, etc.), it is good practice to report its exact name, preferably in English.

Where Member States have more than one national target/objectives, each target/objective will be added into a separate row i.e. each row in the template represents a separate target/objective. Please use the existing empty green rows for additional targets/objectives. Do not insert extra rows in the table. If the existing rows are not enough to list all your targets/objectives, please contact the EEA at [govreg@eea.europa.eu](mailto:govreg@eea.europa.eu)

Data format: text

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if other relevant national objectives and targets have been set). In case other national objectives on energy efficiency were reported in the NECP, the updates to these objectives should be explained in the NECPR.

### 3.8.2. *FIELD 2: Description*

#### **Purpose**

The purpose of this field is for the Member State to give context on the national target/objective and describe the aim.

#### **Guidance, including format of the data**

The description needs to provide a condensed explanation of the national target/objective as specifically as possible.

The following questions should be answered in the short description:

- Which problem is the national target/objective addressing?
- What is the aim of the national target/objective?

Together with the description, please make appropriate use of the references/links to direct users to documents and websites with more information, if available. Reporters can also upload supporting documentation to the Attachments schema.

Data format: text

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant national objectives and targets have been set).

### 3.8.3. *FIELD 3: Progress towards target/ objective*

#### **Purpose**

The purpose of this field is for the Member State to report on progress towards meeting the national target/objective outlined in FIELD 1. The progress should clearly describe the timeframe and should refer to the most recent data available.

#### **Guidance, including format of the data**

Member States have to provide an update on the progress achieved up to the current situation.

If targets were set, an overview of the main actions and achieved milestones should be given.

If targets were not set, then an update on whether targets have since been set and a description of the targets should be provided.

Progress made towards a national target/objective can be reported by providing an update on the progress made towards a specific indicator or by explaining which policies or actions have been put in place which will support the achievement of the target and how these policies and actions are performing against set milestones.

Data format: text

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant national objectives and targets have been set).

### 3.8.4. *FIELD 4: Expected impacts of the set objective*

#### **Purpose**

The purpose of this field is for the Member State to report on expected impacts of the set objective outlined in FIELD 1.

### **Guidance, including format of the data**

Member States have to describe the expected impacts of the set objectives, and their timeframe.

Data format: text

### **Good examples**

Other national objectives can for example include long-term targets or strategies and sectoral targets, and national objectives in areas such as energy efficiency in the transport sector or regarding heating and cooling (as in section 2.2.iii of the NECP). This field can also be used to indicate an update in the objectives for the Article 5 or Article 7 obligations of the Energy Efficiency Directive 2012/27/EU.

**Level of obligation:** Mandatory, if applicable (i.e. Member States are required to provide the information if the relevant national objectives and targets have been set).

#### 4. THEMATIC GUIDELINES FOR REPORTING – ANNEX XVII

This section provides the step-by-step guidelines for reporting. This includes visual guide **of how and where** to report in Reportnet (via the import of excel template), as well as information on the **purpose of reporting** and guidance on **what to report**. This is structured as follows:

- Purpose,
- Guidance (screenshot and data format included),
- Good examples (where available),
- Not recommended (where available),
- Level of obligation (Mandatory, Mandatory if applicable, Mandatory if available, Voluntary).

This section provides guidance for additional reporting obligations in the area of energy efficiency (Article 14), according to Annex XVII of the Implementing Regulation. This includes:

- Table 1: Progress in each sector and reasons why energy consumption remained stable or was growing in final energy consumption sectors
- Table 2: Total building floor area of the buildings with a total useful floor area over 250 m<sup>2</sup> owned and occupied by the Member States' central government that, on 1 January in year X-2 and X-1, which did not meet the energy performance requirements referred to in Article 5(1) of EED and Article 4 of EPBD.
- Table 3: Number of energy audits carried out in in year X-3 and X-2. In addition, the total estimated number of large companies in their territory to which Article 8(4) of EED is applicable and the number of energy audits carried out in those enterprises in the year X-3 and X-2
- Table 4: Applied national primary energy factor for electricity and a justification, if this is different from the default coefficient referred to in footnote (3) of Annex IV to EED
- Table 5: Number and floor area of new and renovated nearly zero-energy buildings (1) in year X-2 and X-1, as provided in Article 9 of EPBD, where necessary based on statistical sampling
- Table 6: Internet link to the website where the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU can be accessible

These reporting requirements derive from Annex IX, part 2 of the Energy Union Governance Regulation which stipulates the additional reporting obligations in the area of energy efficiency, i.e. additional information that has to be included pursuant to point (c) of Article 21.

#### 4.1. Annex XVII, Table 1: Progress in each sector and reasons why energy consumption remained stable or was growing in final energy consumption sectors

##### 4.1.1. FIELDS 1 AND 2: Reasons for growth/stable final energy consumption in years X-3 and X-2

Sector	Specification	Reasons for growth/stable final energy consumption in year X-3 <sup>(1)</sup>	If Other year X-3	Reasons for growth/stable final energy consumption in year X-2	If Other year X-2
		Select category(ies) from footnote (1). Copy past the corresponding category label(s). If you include more than one category, please use "; " as a separator between the different labels.	If you select "other" category, please specify which.	Select category(ies) from footnote (1). Copy past the corresponding category label(s). If you include more than one category, please use "; " as a separator between the different labels.	If you select "other" category, please specify which.
Industry	M	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
Transport	M	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
Households	M	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
Services	M	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
Agriculture	M	Choose (an) item(s) <sup>(1)</sup>	<b>1.</b>	Choose (an) item(s) <sup>(1)</sup>	<b>2.</b>

### Purpose

The purpose of these fields is to report on and establish the Member State's reasons why energy consumption remained stable or was growing in final energy consumption sectors (Industry, Transport, Households, Services, Agriculture, Other sectors) in past calendar years. Additional sectors may be added and specified under 'Other'. The years concerned are X-3 and X-2, where X is the reporting year.

This additional reporting obligation was already requested by Annex XIV Part 1 General Framework for Annual Reports of the Directive 2012/27/EU. Therefore, the same reporting elements are required in this table so, in sectors where energy consumption remains stable or is growing in the calendar years X-3 and X-2, Member States have to analyse the reasons and attach their appraisal.

Annex XIV of the EED 2012/27/EU prescribed a detailed list of indicators to monitor the 2020 energy efficiency targets (refer to table below). As the Annex XIV indicators correspond to Eurostat energy statistics that track progress towards the energy efficiency targets and can be found in the Eurostat online database, these indicators were not integrated in the NECPR template. Therefore Table 1 requires reporting of the reasons for growth or stable energy consumption instead of the figures.

Indicators based on Annex XIV of the EED 2012/27/EU	Indicators in Year X-2, X-3
(i) primary energy consumption	[ktoe]
(ii) total final energy consumption	[ktoe]
(iii) final energy consumption - industry	[ktoe]
(iii) final energy consumption - transport	[ktoe]
(iii) final energy consumption - households	[ktoe]
(iii) final energy consumption - services	[ktoe]
(iv) gross value added - industry	Million-euro, chain-linked volumes, reference year 2005 (at 2005 exchange rates)
(iv) gross value added - services	Million-euro, chain-linked volumes, reference year 2005 (at 2005 exchange rates)
(v) disposable income for households	Million euro
(vi) gross domestic product (GDP)	Million-euro, chain-linked volumes, reference year 2005 (at 2005 exchange rates)
(vii) electricity generation from thermal power generation	[ktoe]
(viii) electricity generation from CHP	[ktoe]
(ix) heat generation from thermal power generation	[ktoe]
(x) heat generation from CHP	[ktoe]
(xi) fuel input for thermal power generation	[ktoe]
(xii) passenger kilometers	[pkm]
(xiii) tonnes kilometers (million)	[tkm]
(xv) population	[Persons]

### Guidance, including format of the data

Member States have to report on each sector separately by choosing from the following reasons (more than one reason can be selected, additional reasons can be specified under 'other'):

- Economic growth;
- Decline of fuel prices;
- Increase of value added;
- Increase of employment;
- Increase of transport of goods;
- Increase of transport of passengers;
- Increase of population and/or households;
- Increase of disposable income of households;
- Worsening of winter climatic conditions;
- Worsening of summer climatic conditions;
- Exceptional event;



- Change in the methodology of measurement or calculation of energy consumptions;
- Other

In the list above, the field "other" is an open field where Member States can explain 'other' reasons and provide any additional comments, supporting data or links to documents. On top of sectors included in the table, additional sectors may be added and specified under the same filed 'other'.

In the Import\_Template\_Annex XVII file, Table 1 sheet, a dedicated table has been added to add one row per additional sector. In Reportnet 3, this table is uploaded in a specific table "Table 1 – Other".

Sector	Specification	Reasons for growth/stable final energy consumption in year X-3 <sup>(3)</sup>	If Other year X-3	Reasons for growth/stable final energy consumption in year X-2	If Other year X-2
		Select category(ies) from footnote (1). Copy past the corresponding category label(s). If you include more than one category, please use ";" as a separator between the different labels.	If you select "other" category, please specify which.	Select category(ies) from footnote (1). Copy past the corresponding category label(s). If you include more than one category, please use ";" as a separator between the different labels.	If you select "other" category, please specify which.
	M <sub>10</sub>	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
	M <sub>10</sub>	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
	M <sub>10</sub>	Choose (an) item(s) <sup>(1)</sup>		Choose (an) item(s) <sup>(1)</sup>	
	M <sub>10</sub>	Choose (an) item(s) <sup>(1)</sup>	1.	Choose (an) item(s) <sup>(1)</sup>	2.

Note that X-3 does not apply for the first progress reports in 2023.

**Data format:** text (separate input with ";"). In the reporting system the format is text (dropdown list).

**Level of obligation:** Mandatory for all sectors (Industry, Transport, Households, Services, Agriculture).

Mandatory if applicable for 'other' additional sectors.

#### 4.2. Annex XVII, Table 2: Total building floor area of the buildings with a total useful floor area over 250 m<sup>2</sup> owned and occupied by the Member States' central government that, on 1 January in year X-2 and X-1, which did not meet the energy performance requirements referred to in Article 5(1) of EED

Reporting element	Specification	Unit	Indicators 1 <sup>st</sup> of January of Year X-2	Indicators 1 <sup>st</sup> of January of Year X-1	Additional information
Total building floor area of the buildings with a total useful floor area over 250 m <sup>2</sup> owned and occupied by the Member States' central government	V	m <sup>2</sup>			
Total building floor area of the buildings which did not meet the energy performance requirements	M	m <sup>2</sup>		1. & 2.	3.

##### 4.2.1. FIELD 1 AND 2: Indicators 1 January of Year X-2 AND X-1

###### Purpose

The purpose of this field is for the Member State to report on and establish the Member State's total building floor area of the buildings with a total useful floor area over 250 m<sup>2</sup> owned and occupied by the Member States' central government AND total building floor area of the buildings which did not meet the energy performance requirements.

###### Guidance, including format of the data

These additional reporting obligations were also requested by Annex XIV Part 1 General Framework for Annual Reports of the Energy Efficiency Directive. Therefore, the same reporting is required in these fields to monitor Article 5 of the EED on the exemplary role of public bodies' buildings.

Floor area is used as reference size for the assessment of the energy performance of a building and can be calculated as the sum of the useful floor areas of the spaces within the building envelope specified for the energy performance assessment.

Data format: number (decimal).

**Level of obligation:** Voluntary for the reporting of total building floor area of the buildings with a total useful floor area over 250 m<sup>2</sup> owned and occupied by the Member States' central government (m<sup>2</sup>).

Mandatory for total building floor area of the buildings which did not meet the energy performance requirements (m<sup>2</sup>).

#### 4.2.2. *FIELD 3: Additional Information*

##### **Purpose**

The purpose of this field is for the Member State to capture the Member State's additional information on the indicators identified in fields 1 and 2 of this table.

##### **Guidance, including format of the data**

This is an open field where Member States can explain the data sources, definitions, and any other information that they have used to determine the reported values.

Data format: text.

**Level of obligation:** Voluntary for the reporting of total building floor area of the buildings with a total useful floor area over 250 m<sup>2</sup> owned and occupied by the Member States' central government (m<sup>2</sup>).

Mandatory for total building floor area of the buildings which did not meet the energy performance requirements (m<sup>2</sup>).

**4.3. Annex XVII, Table 3: Number of energy audits carried out in in year X-3 and X-2. In addition, the total estimated number of large companies in their territory to which Article 8(4) of EED is applicable and the number of energy audits carried out in those enterprises in the year X-3 and X-2**

Reporting element	Specification	Unit	Year	
			X-3 <sup>(2)</sup>	X-2
Total number of energy audits carried out	M	number		<b>1.</b>
Number of large companies <sup>(1)</sup> to which Article 8(4) of Directive 2012/27/EU applies	M	number		<b>2.</b>
Number of energy audits carried out in large companies to which Article 8(4) of Directive 2012/27/EU is applicable	M	number		<b>3.</b>

*4.3.1. FIELD 1: Total number of energy audits carried out*

**Purpose**

The purpose of this field is for the Member State to report on the Member State’s total number of energy audits carried out in historic calendar years. The years are identified as X-3 and X-2, where X is the reporting year.

**Guidance, including format of the data**

This field requires the capture of the number of energy audits carried out in year X-2 and also in year X-2. Note that X-3 does not apply for the first progress reports in 2023.

An energy audit is a systematic procedure with the purpose of obtaining adequate knowledge of the energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation, or a private or public service, identifying and quantifying cost-effective energy saving opportunities, and reporting the findings. Energy audits have to be carried out at least every four years and be based on the minimum criteria as outlined in the Annex VI of the Directive 2012/27/EU.

Data format: number (integer).

**Level of obligation:** Mandatory

*4.3.2. FIELD 2: Number of large companies to which Article 8(4) of Directive 2012/27/EU applies*

**Purpose**

The purpose of this field is for the Member State to report on the Member State’s total number of large companies to which Article 8(4) of the Energy Efficiency Directive applies. The number of companies are reported in historic calendar years. The years are identified as X-3 and X-2, where X is the reporting year.

According to Article 8(4), Member States shall ensure that enterprises that are not SMEs are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by

independent authorities under national legislation. Energy audits need to be performed at least every four years.

#### **Guidance, including format of the data**

The definition for the enterprises in scope of Article 8(4) of the EED follows the European Commission's definition for small and medium-sized enterprises (SMEs), as included in Commission Recommendation 2003/361/EC. Whether an enterprise is an SME or non-SME is in first instance based on three criteria: staff headcount, annual turnover and annual balance sheet total (Commission Recommendation 2003/361/EC). Non-SMEs are those that employ 250 or more persons (headcount) and have either annual turnover more than EUR 50 million or total assets of more than EUR 43 million. But the definition also takes the dependence of the enterprise on other enterprises into account as well.

This field requires the capture of the number of relevant companies in year X-2 and also in year X-3. Note that X-3 does not apply for the first progress reports in 2023.

**Level of obligation:** Mandatory.

#### *4.3.3. FIELD 3: Number of energy audits carried out in large companies to which Article 8(4) of Directive 2012/27/EU is applicable*

##### **Purpose**

The purpose of this field is for the Member State to report on the number of energy audits carried out in large companies to which Article 8(4) of the Energy Efficiency Directive is applicable in historic calendar years. The years are identified as X-3 and X-2, where X is the reporting year.

According to Article 8(4), Member States shall ensure that enterprises that are not SMEs are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by independent authorities under national legislation. Energy audits need to be performed at least every four years.

##### **Guidance, including format of the data**

This field requires the capture of the number of energy audits carried out in applicable large companies in year X-2 and in year X-3. Note that X-3 does not apply for the first progress reports in 2023.

Please also refer to FIELD 1 for the definition of the energy audit.

Data format: number (integer).

**Level of obligation:** Mandatory.

**4.4. Annex XVII, Table 4: Applied national primary energy factor for electricity and a justification, if this is different from the default coefficient referred to in footnote (3) of Annex IV to EED**

National primary energy factor for electricity (number)	M	1.
Justification, if factor is different from default coefficient referred to in footnote (3) of Annex IV to Directive 2012/27/EU	M	2.

*4.4.1. FIELD 1: National primary energy factor for electricity (number)*

**Purpose**

The purpose of this field is for the Member State to report on the national primary energy factor for electricity.

**Guidance, including format of the data**

When energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption, Member States have to apply a coefficient established through a transparent methodology on the basis of national circumstances affecting primary energy consumption, in order to ensure a precise calculation of real savings. Those circumstances have to be substantiated, verifiable and based on objective and non-discriminatory criteria. For savings in kWh electricity, Member States may apply a default coefficient of 2,1 or use the discretion to define a different coefficient, provided that they can justify it. When doing so, Member States has to take into account the energy mix included in their integrated national energy and climate plans.

Data format: number (decimal).

**Level of obligation:** Mandatory.

*4.4.2. FIELD 2: Justification, if factor is different from default coefficient referred to in footnote (3) of Annex IV to Directive 2012/27/EU*

**Purpose**

The purpose of this field is for the Member State to provide justification if the factor in field 1 differs to the Directive.

**Guidance, including format of the data**

This is an open field for the Member States to include a clear justification with supporting documentation and reasons for differentiating.

Footnote (3) of Annex IV to the Energy Efficiency Directive stipulates that the default coefficient is applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh

electricity Member States may apply a default coefficient of 2,1. Member States may apply a different coefficient provided they can justify it.

Data format: text.

**Level of obligation:** Mandatory.

**4.5. Annex XVII, Table 5: Number and floor area of new and renovated nearly zero-energy buildings (1) in year X-2 and X-1, as provided in Article 9 of EPBD, where necessary based on statistical sampling**

Reporting element	Specification	Number		Total floor area (m <sup>2</sup> )		
		X-2	X-1	X-2	X-1	
Residential sector: Total	M <sub>inv</sub>					
Residential sector: New NZEBs	V					
Residential sector: Renovation	V					
Non-residential (private): Total	M <sub>inv</sub>					
Non-residential (private): New NZEBs	V					
Non-residential (private): Renovation	V					
Non-residential (public <sup>(2)</sup> ): Total	M <sub>inv</sub>					
Non-residential (public): New NZEBs	V					
Non-residential (public): Renovation	V		1.		2.	
Definition of nearly zero-energy buildings <sup>(3)</sup>	V					3.

**4.5.1. FIELD 1: Number**

**Purpose**

The purpose of this field is for the Member State to report on the number per building sector (residential, public and private non-residential sector) of new and renovated Nearly Zero-Energy Buildings (NZEBs).

**Guidance, including format of the data**

The number should coincide with the indicators reported in frame of monitoring the Long-term renovation strategy (LTRS) milestones, as requested by Article 21(a)(2) of the Governance Regulation.

The reporting is required for two consecutive historic years starting from 1 January of X-2 and 1 January of X-1 on a number of reporting elements: Total, New NZEBs and Renovation individually for Residential, Non-residential (private) and Non-residential (public) sectors.

Data format: number (integer).

Definitions:

NZEB buildings are not defined in terms of a specific primary energy saving threshold, but according to official national NZEB definitions transposing Article 9 of the EPBD. These national transpositions are according to the framework definition of Article 2 of the EPBD, namely “Nearly zero-energy building means a building that has a very high energy performance, as determined in accordance with Annex I of the EPBD. The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby”.

As a voluntary item, Member States may provide a reference to or a short description of their national NZEB definitions (see field 3).

**Level of obligation:** Mandatory if available for ‘Total’ number reporting (residential, public and private non-residential sector)

Voluntary for ‘New NZEB’ and ‘Renovation’ number reporting (residential, public and private non-residential sector)

#### 4.5.2. *FIELD 2: Total floor area (m<sup>2</sup>)*

##### **Purpose**

The purpose of this field is for the Member State to report on the total floor area (m<sup>2</sup>) per building sector (residential, public vs private non-residential sector) of new and renovated NZEBs.

##### **Guidance, including format of the data**

The floor area reported should coincide with the indicators reported in frame of monitoring the LTRS milestones, as requested by Article 21(a)(2) of the Governance Regulation.

The reporting is required for two consecutive historic years starting from 1 January of X-2 and 1 January of X-1 on a number of reporting elements: Total, New NZEBs and Renovation individually for Residential, Non-residential (private) and Non-residential (public) sectors.

Data format: number (decimal).

See also the definitions in FIELD 1 above.

**Level of obligation:** Mandatory if available for ‘Total’ floor area reporting (residential, public and private non-residential sector)

Voluntary for ‘New NZEB’ and ‘Renovation’ floor area reporting (residential, public and private non-residential sector)

#### 4.5.3. *FIELD 3: Definition of nearly zero-energy buildings*

##### **Purpose**

The purpose of this field is for the Member State to provide a definition of nearly zero-energy buildings.

##### **Guidance, including format of the data**

The definition of NZEB can be provided in this field in the form of a short description. It is recommended to cite where the definition comes from (i.e., legislation, strategy).

In Reportnet 3, this field is uploaded in another table “Table 5 – Other”.

Data format: text.

**Level of obligation:** Voluntary to provide a definition in case one exists and could provide context to the data provided in the previous field(s).

**4.6. Annex XVII, Table 6: Internet link to the website where the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU can be accessible**

Internet link to the website of the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU <sup>(1)</sup>	M	1.
Further details or comments on data	V	2.

**4.6.1. FIELD 1: Internet link to the website of the list or the interface of energy services providers referred to in Article 18(1), point (c) of Directive 2012/27/EU**

**Purpose**

The purpose of this field is for the Member State to record the website where the list or the interface of energy services providers is captured.

**Guidance, including format of the data**

Member States have to make publicly available the list of available energy service providers who are qualified and/or certified and their qualifications and/or certifications. They have to provide the list of internet link of energy services providers and to the interface capturing the list.

Data format: text (hyperlink).

**Level of obligation:** Mandatory

**4.6.2. FIELD 2: Further details or comments on data**

**Purpose**

The purpose of this field is for the Member State to capture any further details, explanation and comments on the above link.

**Guidance, including format of the data**

The description needs to provide a condensed explanation. This should be done as specific as possible.

Data format: text.

**Level of obligation:** Voluntary







## 5. FINALIZING REPORTING

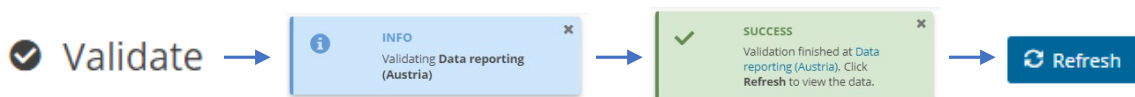
### 5.1. Validating your submission

Reportnet is designed to run a series of quality checks once data is reported. This assists you in the reporting process. See Section 6 for a detailed overview of the Quality Assurance and Quality Control (QAQC) procedures undertaken for the dataflows described in this document.

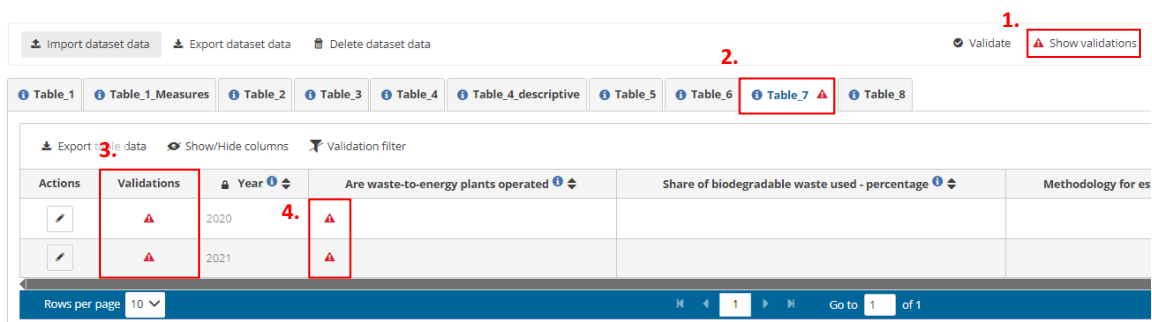
There are four types of errors in Reportnet 3:

-  **Blocker** – serious issues, the data cannot be submitted,
-  **Error** – the data may be release but some explanation is required. Please note, errors should be avoided. You should submit a dataset with errors only under exceptional circumstances,
-  **Warning** – less serious issues, does not prevent the data to be submitted,
-  **Information** – minor issues or simple notifications.

To begin the validation process, click **Validate** (and confirm). Validation takes several minutes, and depends heavily on the amount of data in the dataflow. Validation processes will begin with a blue notification icon and will end with a green success notification in the top right corner. Click the button **Refresh** to see the validations in the dataflow.



Validations can be viewed in multiple areas of the reporting window. For a full list click on **Show validations** (1), tables with validation errors can be viewed in **table tabs** (2), row-level validations can be found in the **Validations field** (3), and cell level validations are reported within the **relevant record** (4).



Actions	Validations	Year	Are waste-to-energy plants operated	Share of biodegradable waste used - percentage	Methodology for es
		2020			
		2021			

When you click on **Show validations**, validations can be filtered by type of QC, table name, field, level of error. There is a field that states the number of records which have this error.

Entity	Table	Field	Code	Level error	Message	Number of records
FIELD	Table_7	Are waste-to-energy plants operated	FC58	ERROR	The value must not be missing or empty	2

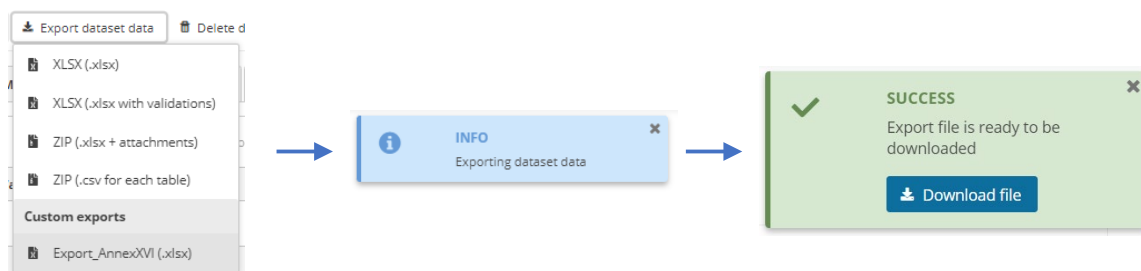
Rows per page: 10 | 1 of 1 | Total: 97 records; total errors: 2

## 5.2. Export functionality

Once data has been reported, there is a possibility to export the reported data from Reportnet. This has multiple advantages for reporters:

- To export reported data from Reportnet into excel template format (e.g., for Annex 17),
- To download pre-filled data that is not visible in Reportnet (this will be included with any data report in Reportnet by (a) reporter(s).
  - This template can be reused as an import template (see Section 2.5.4).

Once an export is initiated you will be notified by a blue notification icon. When the download is successful a green success icon will appear with the download link available. Click this link to download the export.



Exported files can also be **downloaded from the notification list** that can be accessed on the blue navigation pane on the left of the reporting window.



## 5.3. Releasing data

The green icon in the reporting window, **Release to data collection**, is used to submit your final data for this reporting obligation. Please align with the other lead reporter(s) prior to submitting your data. Once selected a **Confirmation receipt** will be made available, with a timestamped proof of submission.



## To Whom It May Concern

This is a confirmation of receipt for national data submission under the reporting obligation

### **ANNEX XVI 22112022**

**Obligation:** National projections of anthropogenic greenhouse gas emissions - GovReg  
<https://rod.eionet.europa.eu/obligations/797>

**Datasets**

ANNEX XVI

**Release date**

2023-01-23 19:28:54 CET

Submitted by user: [william.keeling@eea.europa.eu](mailto:william.keeling@eea.europa.eu)



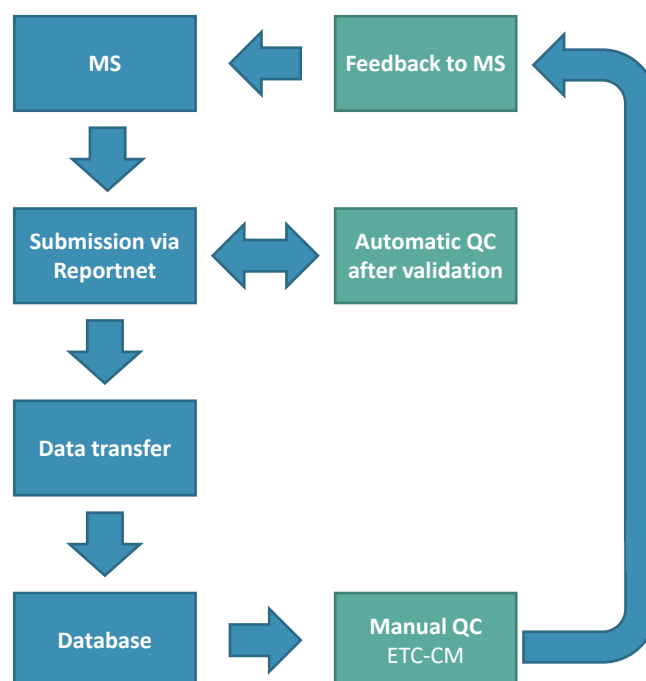
**Data can be submitted multiple times.** In each occasion the data will be saved. However please note that for later use **the EEA will always take the latest version** of the submitted data.

## 6. QUALITY ASSURANCE AND QUALITY CONTROL

### 6.1. Quality assurance and quality control structure

To ensure timeliness, completeness, consistency, comparability, coherence, transparency and accuracy of the reported information, specific quality checks are performed on the submissions by Member States. On behalf of the Commission and the EEA, the European Topic Centre (ETC-CM) carries out these quality checks for the dataflows covered in this guideline. However, Member States are strongly encouraged to adhere as much as possible to the reporting guidelines and to conduct a quality control of the information on the data reported. The results of the quality checks are communicated to Member States. After quality control, the data is stored in the EEA's database, made publicly available and used in the European Commission's assessment of the NECPRs and in certain EEA products. The figure below presents an overview of the process done on the reported information.

Figure 1 - Overview of the quality control process



The quality control procedure is aligned with the key reporting principles set out in the [2006 IPCC Guidelines for National Greenhouse Gas Inventories](#). More specifically, the information reported by Member States is assessed against seven criteria (five quality criteria so called 'TCCCA criteria' and timeliness and coherence):

- Timeliness,
- Transparency,
- Completeness,
- Consistency,
- Coherence,
- Comparability,
- Accuracy.

By performing quality checks each reporting cycle and providing additional reporting guidelines, the aim is to improve reporting along the seven criteria listed above.

Each criterion corresponds to a number of specific checks, which are performed in the sequential order. Below is an overview of what could be required per criteria.

<b>Criteria</b>	<b>Objective</b>
Timeliness	To assess if data and report was submitted on time and identify as early as possible any gaps or inconsistencies to inform Member States about the need for a resubmission.
Transparency	To ensure the data is identifiable and underlying methods are clearly referenced.
Completeness	To ensure that all relevant data and information is included.
Consistency	Ensure that the reporting is consistent and in line with good practices and guidelines. Checks ensure both internal consistency and consistency across years.
Coherence and Comparability	To assess whether the reported data is coherent with other possibly relevant reporting obligations and data provided and to ensure reporting across Member States is comparable.
Accuracy	To assess whether the data provided are credible.

## **6.2. Timeline & communication**

Timeliness of reporting is an important quality criterion that helps ensure the smooth running of the quality control process. Member States must submit information on NECPR obligations required under the Governance Regulation by 15 March to allow for proper quality checking at EU level, prior to the publication of the submitted NECPRs and compilation of the European Commission’s assessment of the NECPRs.

The number and the dates of additional resubmissions are also tracked. The main steps between the initial submission of information by the Member States, and the publication of the EU’s progress report are described below. This includes the initial submission, quality control, a communication period, and the finalization and subsequent publication of the information. The Member States, ETC-CM, EEA and the European Commission are involved in these steps. The timeline below sets out the key dates associated with each of these steps (Table 1).

The effective implementation of the procedure requires efficient responses from all parties at each step and therefore the timeline is only indicative, assuming submission, quality control and resubmission is not delayed for any reason. Furthermore it is not necessary for the procedure to take the full anticipated period, presented below, if data quality is sufficient and clearly presented.

*Table 1 – Indicative timeline and the description of the action required by the organisations involved*

<b>When</b>	<b>What</b>	<b>Who</b>
By 15 March	<ul style="list-style-type: none"> <li>• Preparation of the submission and completion of the reporting obligation within relevant dataflow;</li> <li>• Internal quality checks and via validation on Reportnet;</li> <li>• Release submission via Reportnet.</li> </ul>	Member States
15 March – 15 April	Quality control (transparency, comparability, completeness, coherence, consistency and accuracy checks simultaneously). This includes feedback to Member States and communication on any issues found. Changes to Member States submissions will only be made, if Member States provide updates or corrections based on the findings communicated by the ETC-CM.	ETC-CM
15 April – 30 April	If necessary, MS adjust and resubmit the dataflow via Reportnet.	Member States
1 May – mid June	Review of the resubmitted report, if needed final follow up with the Member States.	ETC-CM (and Member States)
30 June	Delivery of final information by Member States to the EEA for publication in the EEA database.	ETC-CM
End-August	Final checking of whole EU database and preparation of report compiling the outcome of the implementation of the quality control procedure on EU level, including individual feedback to Member States.	ETC-CM
July-October	<p>Assessment, analysis and reporting in progress reports (Commission).</p> <p>Publication of EEA products (trends and projections, data visualisations).</p>	<p>European Commission</p> <p>EEA</p>

The central document in this quality control circle is the quality check feedback report. It ensures a consistent and complete quality control process and is a template to communicate the findings to the Member States. Every finding is added to the feedback report. These reports will be bilaterally shared with relevant lead reporters of a dataflow. If needed Member States will be asked to adjust the submission and resubmit.

If reviewers have a specific question concerning the latest submission, the Member States will be asked for clarification via the feedback report. The Member States then have the

responsibility to provide a clarification, adjust the information provided (report or data) and release the data again via Reportnet. The Member States are responsible for making the necessary changes to the dataflow.

### **6.3. Assessment of Member States submissions**

After the quality control procedure has been concluded a short report presenting the outcome of the quality checks will be prepared. This will include information on:

- List of checks done;
- Overview of findings;
- Overview of corrective actions;
- An EU assessment summarizing the outcome of the implementation of the quality checking procedure;
- Recommendations for further improvements in reporting.

## Annex 1: Reporting roles

### Roles in the NECPR reporting

This document discusses the different roles envisioned in the technical implementation of the NECPR reporting.

#### Member state roles

- Lead reporter (2 per dataflow)
- Reporter

Function	Lead reporter
<b>Overall aim of the function</b>	The lead reporter is responsible for ensuring the complete and timely reporting of (a) data flow(s)
<b>Role/ responsibilities</b>	<ul style="list-style-type: none"> <li>• Responsible for validating and submitting completed data flows.</li> <li>• Coordinate the reporting exercise from a substantive perspective, following up overall completion and assigning the necessary reporters. <ul style="list-style-type: none"> <li>○ Acts as distribution point of relevant developments/information related to reporting to the necessary reporters.</li> <li>○ Responsible for all reporters in their dataflow(s): that they are coordinated and updated on timelines, key meetings, processes (etc.).</li> </ul> </li> <li>• Key contact for Commission/EEA with regard to substantive issues of reporting.</li> </ul>
<b>Competencies</b>	<ul style="list-style-type: none"> <li>• Expertise of thematic area of relevant dataflow(s)</li> <li>• Knowledge/coordination of supporting reporters and relevant supporting ministry/ministries <ul style="list-style-type: none"> <li>○ To be able to disseminate information related to the relevant dataflow(s)</li> </ul> </li> <li>• Understanding of the reporting system (ReportNet and/or ReportENER) for relevant dataflow(s) following guidance and training: <ul style="list-style-type: none"> <li>○ Ability to assign reporters</li> <li>○ Ability to validate and release/submit data when completed</li> </ul> </li> </ul>
<b>Interfaces to</b>	<ul style="list-style-type: none"> <li>• Data stewards, regarding thematic reporting queries</li> <li>• Data custodians, regarding technical reporting queries</li> <li>• Other lead reporters, for coordination and to ensure the overall reporting obligations of the Member State is accomplished</li> <li>• Reporters, where assigned by lead reporter</li> </ul>
<b>Note</b>	<p>Lead reporters + back-ups for each data flow are nominated initially by mail through the Permanent Representation (November 2022).</p> <p>A lead reporter should be assigned for each individual data flow, however a lead reporter can be responsible for multiple or even all data flows for the NECPR.</p>



Changes can only be requested by e-mail by the relevant lead reporter(s) or Permanent Representation to the relevant data steward. The data steward must inform the Assessment Coordinator and relevant reporting system coordinator (Reportnet or ReportENER).

Contact for changes:

(for dataflows in ReportNet) [govreg@eea.europa.eu](mailto:govreg@eea.europa.eu)

(for dataflows in ReportENER) [EC-E-PLATFORM-IT-SUPPORT@ec.europa.eu](mailto:EC-E-PLATFORM-IT-SUPPORT@ec.europa.eu)

<b>Function</b>	<b>Reporter</b>
<b>Overall aim of the function</b>	The reporter is responsible for contributing to complete and timely reporting of (a) data flow(s)
<b>Role/ responsibilities</b>	<ul style="list-style-type: none"> <li>• Contributing to complete and timely reporting of (a) data flow(s). A reporter cannot submit completed data flows.</li> </ul>
<b>Competencies</b>	<ul style="list-style-type: none"> <li>• Expertise of thematic area of relevant dataflow(s)</li> <li>• Understanding of the reporting system (ReportNet and/or ReportENER) for relevant dataflow(s) following guidance and training</li> </ul>
<b>Interfaces to</b>	<ul style="list-style-type: none"> <li>• Lead reporter</li> </ul>
<b>Note</b>	<p>A reporter is assigned to an individual dataflow by the relevant lead reporter (can be assigned to multiple dataflows). It is not required to officially nominate a reporter to a data flow (given that a lead reporter is nominated)</p> <p>For ReportNet: lead reporters can assign reporters directly in the system (See section 2.4)</p> <p>For ReportENER: lead reporters can request changes to the reporters by e-mail: <a href="mailto:EC-E-PLATFORM-IT-SUPPORT@ec.europa.eu">EC-E-PLATFORM-IT-SUPPORT@ec.europa.eu</a></p>

## **Commission/EEA roles**

- Assessment coordinator
- ReportNet coordinator
- ReportENER coordinator
- Data steward

<b>Function</b>	<b>Assessment coordinator</b>
<b>Overall aim of the function</b>	The assessment coordinator is responsible for the management of the overall process on the business/policy side, keeping track of the fulfilment of the other Commission/EEA roles, in particular data stewards & associated reviewers at COM side.
<b>Role/ responsibilities</b>	<ul style="list-style-type: none"> <li>• Establishes and manages the business processes for the overall assessment</li> <li>• Manages the meetings of the technical implementation group &amp; ISG</li> <li>• Keeps track of the fulfilment and assignment of process roles</li> <li>• If needed, escalates issues to the management level</li> </ul>
<b>Competencies</b>	
<b>Interfaces to</b>	<ul style="list-style-type: none"> <li>• All core team coordinators</li> <li>• All COM associated reviewers</li> </ul>

<b>Function</b>	<b>ReportNet coordinator</b>
<b>Overall aim of the function</b>	The ReportNet coordinator is responsible for ensuring the technical implementation of the NECPR modules implemented through ReportNet, including relations with data stewards & data custodians on the EEA side
<b>Role/ responsibilities</b>	<p><b>NECPR management</b></p> <ul style="list-style-type: none"> <li>• Manages the technical implementation of the NECPR modules implemented through ReportNet</li> <li>• Coordinates with data stewards and custodians on ReportNet dataflows, ensuring where possible a consistency of approach</li> <li>• Coordinates internal business management approaches across dataflows, establishing common timelines and where necessary resource management.</li> </ul> <p><b>Stakeholder relations</b></p> <ul style="list-style-type: none"> <li>• Maintains institutional stakeholder relations (EC, EEA, Eurostat, JRC ...) as main contact point <ul style="list-style-type: none"> <li>○ Ensures regular updates on progress are shared with relevant experts (coordinators, data stewards/custodians, other relevant internal stakeholders)</li> </ul> </li> </ul>
<b>Competencies</b>	<ul style="list-style-type: none"> <li>• Overview of key developments/challenges faced within ReportNet (per dataflow)</li> <li>• In-depth understanding of dataflow management processes</li> <li>• High-level technical and thematic data collection knowledge</li> </ul>

<b>Interfaces to</b>	<ul style="list-style-type: none"> <li>• All core team coordinators</li> <li>• All ReportNet data stewards and custodians</li> <li>• Where relevant, additional institutional stakeholders (EC, EEA, Eurostat, JRC ...)</li> <li>• Where relevant, data providers</li> </ul>
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<b>Function</b>	<b>ReportENER coordinator</b>
<b>Overall aim of the function</b>	The ReportENER coordinator is responsible for ensuring the technical implementation of the NECPR modules implemented through ReportENER, including relations with data stewards & data custodians on the COM side
<b>Role/ responsibilities</b>	<ul style="list-style-type: none"> <li>• Manages the technical implementation of the NECPR modules implemented through ReportENER.</li> <li>• Coordinates with data stewards and custodians on the relevant ReportENER dataflows.</li> <li>• Cooperates internally to align reportENER development plans and resources with NECPR modules implementation needs, escalates to Management if necessary.</li> </ul> <p><b>Stakeholder relations</b></p> <ul style="list-style-type: none"> <li>• Maintains institutional stakeholder relations (EC, EEA, Eurostat, JRC ...) as main contact point. <ul style="list-style-type: none"> <li>○ Ensures regular updates on progress are shared with relevant experts (coordinators, data stewards/custodians, other relevant internal stakeholders).</li> </ul> </li> </ul>
<b>Competencies</b>	<ul style="list-style-type: none"> <li>• Project management</li> <li>• Stakeholder relationship management</li> <li>• High-level technical and thematic data collection knowledge</li> </ul>
<b>Interfaces to</b>	<ul style="list-style-type: none"> <li>• All core team coordinators</li> <li>• ReportENER data steward, custodian and internal stakeholders (e.g. Product Owner, development team)</li> </ul>

<b>Function</b>	<b>Data Steward</b>
<b>Overall aim of the function</b>	Data Stewards are overall responsible for a data collection or dataflow, ensuring compliance with legislation and/or institutional regulations, interfaces to reporters, relevant coordinator and data users, ensures quality procedures are in place.

<p><b>Role/ responsibilities</b></p>	<p><b>Dataflow management</b></p> <ul style="list-style-type: none"> <li>• Establishes and manages the business processes to ensure their dataflow is operational for data collection, data processing/validation and data dissemination.</li> <li>• Ensures a project plan for their relevant dataflow and permanent quality improvement - the what, when, who, how and resources.</li> <li>• Translate requirements to different expert groups (data custodian, analyst, communication).</li> <li>• Coordinates with data custodian on technology improvements impacting data flow.</li> <li>• Coordinate with main data users.</li> <li>• Where necessary ensures that data collected is made visible/accessible.</li> </ul> <p><b>Stakeholder relations</b></p> <ul style="list-style-type: none"> <li>• Works with relevant coordinator to maintain institutional stakeholder relationships (EC, EEA, Eurostat, JRC ...).</li> <li>• Directly maintains stakeholder relationships with data providers/reporters at national level.</li> <li>• Manages the assignment of reporters' rights to the relevant dataflow, after (re)-nomination.</li> <li>• Monitoring reporting status (and initial follow up if there are reporting delays/issues)</li> </ul>
<p><b>Competencies</b></p>	<ul style="list-style-type: none"> <li>• Has in-depth thematic knowledge of the data collection <ul style="list-style-type: none"> <li>○ Understands the data from a content point of view.</li> <li>○ Understands the data collection methodology.</li> <li>○ Understands how this data can be used and not used.</li> </ul> </li> <li>• General understanding of ICT relevant for monitoring, data handling and reporting practices e.g. quality control, data formats (spatial, textual, tabular), and data sharing.</li> </ul>
<p><b>Interfaces to</b></p>	<ul style="list-style-type: none"> <li>• Core group institutional stakeholders (Commission, EEA, Eurostat, JRC ...) with/via relevant coordinator.</li> <li>• Implementation group thematic colleagues internally or externally (Commission, EEA, Eurostat, JRC ...) directly.</li> <li>• Relevant data custodian(s)</li> <li>• Reporters/data providers</li> <li>• Other final users of the data</li> </ul>