

Implementing the EU Energy Efficiency Directive:  
**Analysis of Member States plans  
to implement Article 5**

## Credits

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The Coalition for Energy Savings strives to make energy efficiency and savings the first consideration of energy policies and the driving force towards a secure, sustainable and competitive European Union. Its membership unites businesses, professionals, local authorities, trade unions and civil society organisations in pursuit of this goal. The Coalition calls on the EU to commit itself to a 40% energy saving target by 2030, and to step up policies, measures and investments in order to stop energy waste and tap the considerable energy savings potentials.

Coalition members represent:

- more than 400 associations and 150 companies
- 15 million supporters and more than 2 million employees
- 1,000 cities and towns in 30 countries in Europe

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### **Related publications**

Coalition for Energy Savings, Analysis of Article 7 Member States reports, April 2014<sup>1</sup>.

Coalition for Energy Savings, Updated analysis of Article 7 Member States reports, March 2015<sup>2</sup>.

Coalition for Energy Savings, Guidebook for Strong Implementation for the EED, 2013<sup>3</sup>.

Stefan Scheuer Consulting, Your Complaints For Strong Implementation of the Energy Efficiency Directive - A practical guide for using complaints to the European Commission to support National implementation, April 2014<sup>4</sup>.

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<sup>1</sup> <http://energycoalition.eu/analysis-article-7-member-states-reports>

<sup>2</sup> [http://energycoalition.eu/Updated\\_Art.\\_7\\_report](http://energycoalition.eu/Updated_Art._7_report)

<sup>3</sup> <http://eedguidebook.energycoalition.eu/>

<sup>4</sup> [www.stefanscheuer.eu/20140414\\_Stefan\\_Scheuer\\_Consulting\\_EED\\_Complaints\\_Toolkit.pdf](http://www.stefanscheuer.eu/20140414_Stefan_Scheuer_Consulting_EED_Complaints_Toolkit.pdf)

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## Abbreviations

BPIE	Buildings Performance Institute Europe
EED	Energy Efficiency Directive
EPBD	Energy Performance of Buildings Directive
EPC	Energy Performance Certificate
ESCO	Energy Service Company
EU	European Union
GWh	Gigawatt hour
kWh	Kilowatt hour
MEPR	Minimum Energy Performance Requirement
MS	Member State
NA	Not available
NEEAP	National Energy Efficiency Action Plan
UK	United Kingdom

# 1. Introduction

The Coalition for Energy Savings undertakes regular assessments to keep track of progress at Member State level of implementation of the Energy Efficiency Directive (EED). In doing this, it supports the national and EU energy efficiency community, as well as the European Commission in its role to check and enforce compliance of national implementing measures under the EED. This report analyses the plans and inventories Member States notified to the Commission in order to comply with Article 5 of the EED, which requires Member States to annually renovate 3% of the floor area of their central government buildings.

Good implementation of the EED is crucial to achieve the 20% energy savings target in 2020 and pave the way to deliver further savings beyond 2020. The importance of good implementation is confirmed by the Commission in its 2014 Energy Efficiency Communication<sup>5</sup>, which states that "implementation of the EU legislative framework is still lagging behind. If all Member States now work equally hard to implement fully the agreed legislation then the 20% target can be achieved without the need for additional measures". Furthermore, the European Council, in its conclusions of 23/24 October 2014, stated that "substantial progress has been made towards the attainment of the EU targets for greenhouse gas emission reduction, renewable energy and energy efficiency, which need to be fully met by 2020". These statements by both the Commission and the European Council raise high expectations for good implementation of the EED.

The public sector can be an important trigger for stimulating market transformation towards more efficient products, buildings and services and in promoting best practices examples, and thus play a crucial role in ensuring that the EU achieves the 20% energy savings target. Due to the large volume of relevant public spending (19% of GDP<sup>6</sup>) it could serve as a strong driver for higher market uptake of energy efficiency.

The energy-related renovation rate of buildings in the EU only amounts to around 1%<sup>7</sup>; the main purpose of Article 5 is to ensure that, at least in the public sector, energy efficient buildings renovations are substantially sped up. Energy efficient renovations of central government buildings should set the example for regional and local governments, as well as open-up the market for the residential and commercial building stock. In short, an increased rate of energy efficient renovation of central government buildings would provide a learning laboratory and kick-start the market for the whole sector.

Finally, the implementation of this article is a real test of Member States' commitment towards energy efficiency. Governments are fully responsible for the buildings they own and occupy; therefore, if they do not fully deliver on this obligation, it will be a clear sign of the lack of political will to make energy efficiency happen.

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<sup>5</sup> European Commission, Communication from the Commission to the European Parliament and the Council - Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy, COM(2014)520, 23 July 2014.

<sup>6</sup> SEC(2011)853 final

<sup>7</sup> Europe's buildings under the microscope. A country-by-country review of the energy performance of buildings, BPIE, page 103.

## 2. Requirements of EED Article 5

Article 5 of the Energy Efficiency Directive (EED) requires Member States to either

- renovate each year, as of 1 January 2014, 3% of the total floor area of heated and/or cooled buildings owned and occupied by central government<sup>8</sup> with a floor area over 500m<sup>2</sup> that do not meet the Minimum Energy Performance Requirements (MEPRs) (the default approach), or
- take alternative measures that achieve savings that are at least equivalent to the savings that the default approach would have delivered (the alternative approach).

The default approach requires Member States to renovate 3% of the floor area annually up to the relevant MEPRs, set in accordance with the Article 4 of the Energy Performance of Buildings Directive (EPBD)<sup>9</sup>.

The 3% rate shall be calculated on the total floor area of buildings, with a total useful floor area over 500m<sup>2</sup>, owned and occupied by the central government of the Member State that on 1 January each year do not meet the MEPRs. The threshold of 500m<sup>2</sup> shall be lowered to 250m<sup>2</sup> by 9 July 2015. Member States may also decide to exempt special categories of buildings, including those of special architectural value<sup>10</sup>. The floor area to be renovated only concerns that of central government buildings. Central government is defined as 'all administrative departments whose competence extends over the whole territory of a Member State, according to article 2(9) of the EED. Moreover, when in a given Member State and for a given competence no such relevant administrative department exists that covers the whole territory, the obligation should apply to those administrative departments whose competences cover collectively the whole territory<sup>11</sup>. This scope of 'central government buildings' can thus differ per Member State.

Member States that opt for the default approach are required to establish and make publicly available an inventory of heated and/or cooled central government buildings with a total useful floor area over 500 m<sup>2</sup> by 31 December 2013.

Member States may take an alternative approach to this requirement, by taking other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve by 2020 the same amount of energy savings that would be achieved when renovating 3% of the government buildings stock annually.

Member States using the alternative approach were required to notify the Commission, by 31 December 2013, of the measures they plan to adopt, and showing how this would achieve an equivalent improvement of energy performance of central government buildings compared to the default approach.

In addition, Annex XIV of the EED in its section on the "General framework for annual reports" requires all Member States to annually report on the total building floor area of central government buildings that do not meet the MEPRs (Annex XIV, part 1(c)). Moreover, Member States opting for the default approach have to report on the total building floor area that was renovated in the previous year, while Member States opting for the alternative approach need to report on the total energy savings (Annex XIV, part 1(d)).

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<sup>8</sup> Article 2(9) of the EED defines 'Central government' as 'all administrative departments whose competence extends over the whole territory of a Member State.

<sup>9</sup> Article 4 of the EPBD states that Member States shall take the necessary measures to ensure that minimum energy performance requirements for buildings or building units are set with a view to achieving cost-optimal levels.

<sup>10</sup> Article 5(2) allows Member States to exempt buildings officially protected, buildings owned by the armed force or serving national defense purposes, and buildings used as places of worship and for religious activities.

<sup>11</sup> Recital 17 of the EED, and referred to in the Guidance note on Directive 2012/27/EU on energy efficiency (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0445&from=EN>)

To help Member States with the implementation of the key provisions of EED, including Article 5, the European Commission has issued guidance notes that should guide the interpretation and the implementation of the Articles<sup>12</sup>.

See Annex III for the relevant legal texts.

### 3. Method

The Coalition for Energy Savings undertook a stakeholder analysis of Member State reports on Article 5 implementation that builds upon the factsheet the Building Performance Institute Europe (BPIE) has published<sup>13</sup>. A range of stakeholders (Annex II) provided analysis, insights and opinions about the reports, based on a common questionnaire (Annex I) to develop this report. The National Energy Efficiency Actions Plan and the Annual Progress Report submitted in spring 2014, as well as national implementing reports produced under the Concerted Action for the EED were used for additional relevant information.

The analysis focuses on the essential elements of Article 5:

- What are the expected energy savings from the renovations and/or the alternative approach?
- Is the required information provided?
- Which measures are planned, and is there a schedule for implementation?

By investigating these questions, it becomes clear whether the current article will reach its objective of making the public sector a role-model in EU buildings renovations.

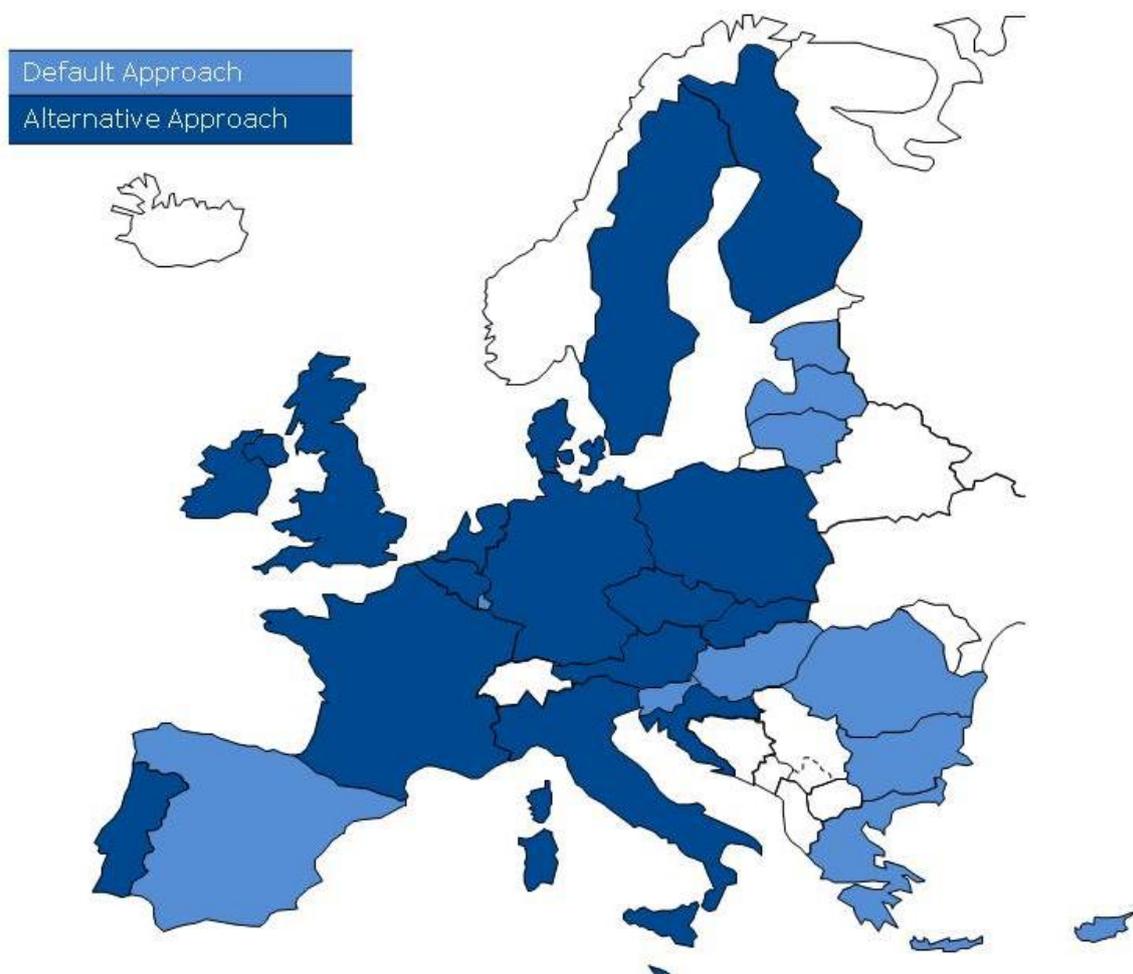
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<sup>12</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0445&from=EN>

<sup>13</sup> [http://bpie.eu/factsheet\\_article5.html#.VSZT2JOUftE](http://bpie.eu/factsheet_article5.html#.VSZT2JOUftE)

## 4. Overview of countries using default and alternative approach

Out of the 28 EU Member States, 11 chose to implement Article 5 by adopting the default approach and 17 by adopting the alternative approach.



**Figure 1 - Member States implement Article 5 adopting the default or the alternative approach**

Inventories of the central government buildings are available for the 11 countries that have opted for the default approach. The European Commission webpage<sup>14</sup> provides links to the websites where the inventories of Cyprus, Estonia, Latvia and Lithuania can be found. The notifications and/or inventories of Greece, Hungary, Luxembourg and Spain are published directly on the Commission page. There are no documents available for Bulgaria, Romania and Slovenia on the Commission page.

Of the 17 countries that have chosen the alternative approach, all - except the Czech Republic - have sent a notification to the European Commission. The Czech Republic has communicated its choice for the alternative approach in its 2014 National Energy Efficiency Action Plan - not in a separate notification as required by the EED.

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<sup>14</sup> <http://ec.europa.eu/energy/en/topics/energy-efficiency-directive/buildings-under-eed>

Spain claims it would use a “mixed approach” in which alternative measures would complement the default approach, in case renovations under the default approach will not deliver the required savings. However, the Coalition’s assessment is that if Spain wanted to use the alternative approach it should have notified an alternative energy savings target and a list of measures to achieve this target, which could have included building renovations as well.

## 5. Main findings: Member States using the default approach

Under the default approach of Article 5 Member States should renovate 3% of the floor area of their central government public buildings that do not meet the MEPRs per year. In order to fulfil the requirements, Member States first need to compile an inventory of their buildings.

### 5.1 Inventories

The prerequisite to planning the renovation of central government buildings is to have a complete overview of the building stock in order to be able to calculate the floor area that needs to be renovated. For this reason, Article 5(5) requires Member States to establish an inventory and make it publicly available. The inventory should contain a list of heated and/or cooled buildings that are owned and occupied by central government with a total useful floor area over 500 m<sup>2</sup> (on 9 July 2015 this threshold should be lowered to 250m<sup>2</sup>). For each building, the inventory should specifically include information on its floor area expressed in square metres and “data on the energy performance, or relevant energy data”. This means that energy data on the energy consumption in the form of kWh/square metre, total energy use for a building, or Energy Performance Certificate (EPC) are equally acceptable.

While Member States have to renovate annually 3% of the floor area of those buildings that do not meet the MEPRs set in accordance with Article 4 of the EPBD, there is no clear legal requirement to explicitly also include MEPRs information per building in the inventory.

With the exception of Romania and Hungary<sup>15</sup>, all Member States’ inventories contain a list of central government buildings with a floor area over 500m<sup>2</sup>. Four countries extended the scope of their inventories beyond central government buildings: Bulgaria also includes buildings with a floor area over 250m<sup>2</sup>. Moreover, Bulgaria and Lithuania also include regional buildings. Estonia lists all state-owned buildings, which includes schools and hospitals, but not regional and local government buildings. In general, it is encouraging if Member States voluntarily extend the scope of Article 5 beyond central government buildings. Yet, these cases must be carefully assessed as to whether they go beyond the requirements, as the definition of central government buildings can be different per country (see chapter 2 for definition).

All Member States, apart from Romania and Hungary, provide information on the surface area (in m<sup>2</sup>) for each building.

Out of the 11 countries, two countries (Latvia and Slovenia) fully comply with the obligation to report energy data for each building listed in the inventory. Six countries (Bulgaria, Cyprus, Estonia, Lithuania, Luxembourg and Spain) report energy performance data per building but not for all buildings, while Hungary, Greece and Romania do not present energy performance data per building at all.

The two countries providing full information on the energy use of their central government buildings, do so by providing complete data on the energy consumption in kWh/m<sup>2</sup>. This means that no country has provided comprehensive data in the form of EPCs.

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<sup>15</sup> The Romanian and Hungarian inventories only provide aggregated information per group of buildings under the authority of one government body.

From those that provide partial information, Bulgaria, Estonia and Lithuania only use EPCs. Cyprus, Latvia, Luxembourg and Spain combine EPCs with other energy indicators, such as kWh/m<sup>2</sup> (see Table 1).

Finally, from the inventories it is not clear whether the buildings listed are only those that do not meet the MEPRs or all buildings that are owned and occupied by the central government. Only Cyprus and Luxemburg explicitly distinguish whether buildings comply with the MEPRs.

**Table 1 - Quality of inventories for countries having chosen the default approach**

	Which buildings are listed in the public inventory?	Is information on the floor area of buildings available?	Is information on the energy performance per building available in the inventory? <sup>16</sup>	
			EPC	Other energy indicator
Bulgaria	All central and regional government buildings with floor area over 250m <sup>2</sup>	Yes, for every building	Low availability ~15%	NA
Cyprus	All central governmental buildings with floor area over 500m <sup>2</sup>	Yes, for every building	Low availability ~ 10%	Energy consumption (kWh/m <sup>2</sup> /year) Moderate availability ~ 64%
Estonia	All state owned and occupied properties <sup>17</sup>	Yes, for every building	Low availability ~ 10%	NA
Greece	All central governmental buildings with floor area over 500m <sup>2</sup>	Yes, for every building	NA	NA
Hungary	No individual buildings but groups of buildings <sup>18</sup>	No	NA	NA
Latvia	All central governmental buildings with floor area over 500m <sup>2</sup>	Yes, for every building	Low availability ~10%	Energy consumption in kWh/m <sup>2</sup> /year Full availability ~100%
Lithuania	All central and regional public buildings with floor area over 500 m <sup>2</sup>	Yes, for every building	Moderate availability ~60%	NA
Luxemburg	All central governmental buildings with floor area over 500m <sup>2</sup>	Yes, for every building	Low to moderate availability ~30% <sup>19</sup>	Electricity consumption (kWh/m <sup>2</sup> /year) ~ low to moderate availability 28%

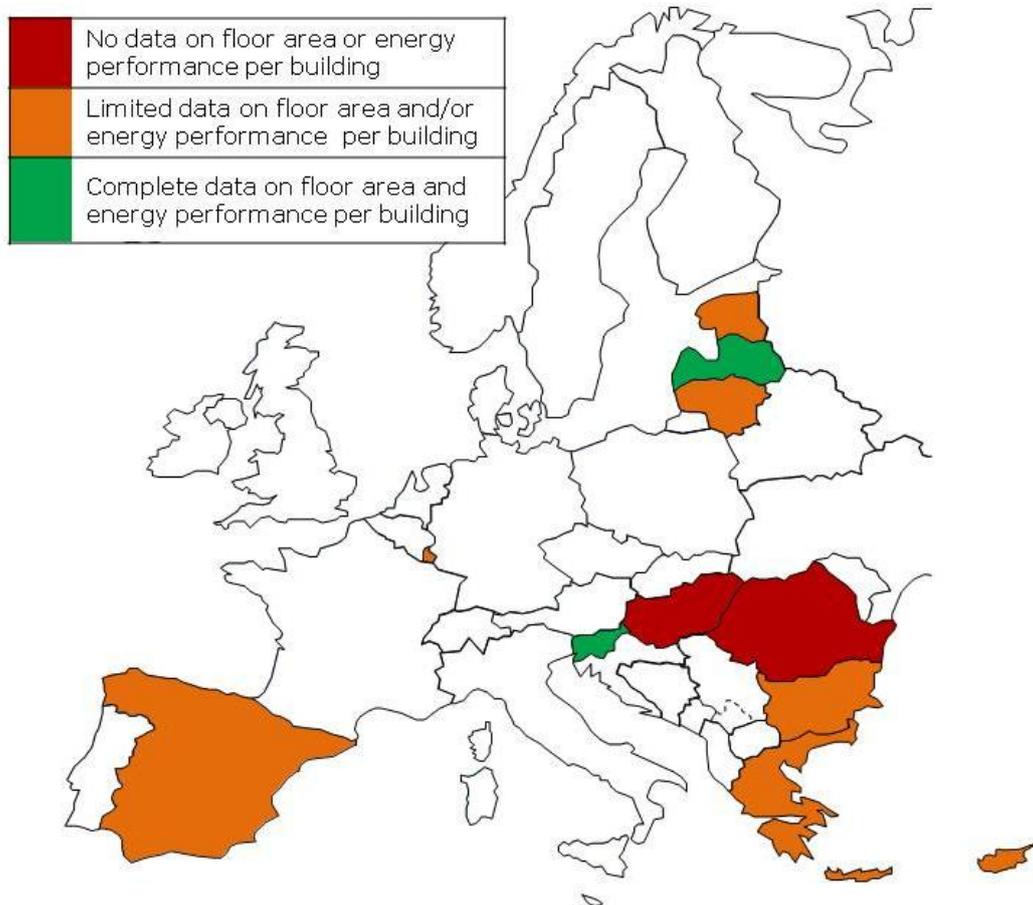
<sup>16</sup> The numbers presented here are slightly different from those in BPIE's factsheet 'Setting the target for public buildings renovation', as this analysis distinguishes between data on energy consumption (kWh) and EPCs. We chose to look at EPCs as these automatically include information on the MEPRs. Our estimations on the availability of energy performance indicators are slightly different from BPIE's factsheet.

<sup>17</sup> Estonia has a publicly accessible online system, which includes all state owned and occupied properties (state owned public buildings, schools, hospitals, etc.).

<sup>18</sup> The inventory does not provide data per building, but aggregated information per group of buildings under the authority of one government body.

<sup>19</sup> Luxemburg reports that out of 58 buildings, 16 buildings have an EPC, and 6 additional buildings are 'fulfilling current requirements'; presumably this means MEPRs. All buildings without EPC are under scru-

				heat consumption (kWh/ m <sup>2</sup> /year) moderate availability ~ 67%
Romania	No individual buildings but groups of buildings <sup>9</sup>	No	NA	NA
Slovenia	All central governmental buildings with floor area over 500m <sup>2</sup>	Yes, for every building	NA	Energy consumption (kWh/m <sup>2</sup> /year) Full availability ~100%
Spain	All central governmental buildings with floor area over 500m <sup>2</sup>	Yes, for every building	Moderate availability ~ 40%	Energy consumption (kWh/m <sup>2</sup> /year) – high availability ~90%



**Figure 2 - Country ranking: quality of inventories**

tiny at the moment. However, the inventory does not contain EPC values; only electricity and heat consumption indicators are provided and it is unclear to which EPC values these correspond.

## 5.2 Planning and carrying out renovations

After compiling the inventories, the renovations should have started as of 1 January 2014. However, under the default approach, there is no requirement to provide a plan for the renovations. As a consequence, Member States do not provide information on planning and implementation of the required renovations.

Article 5 requires Member States to prioritise renovation of the worst performing buildings, in so far as this is technically feasible and cost-effective. It remains unclear from the information provided by the Member States whether worst performing buildings are prioritised. Moreover, it is also unclear whether renovations that go beyond the MEPRs will be carried out.

## 5.3 Annex XIV: Article 5 reporting obligation in annual reports

As of 2014, according to Annex XIV, Member States opting for the default approach were required to report the total floor area that does not meet MEPRs and the total floor area to be renovated in the previous year in their annual report due by 30 April. However, while Member States could report on the total floor area as they had to collect this information for the inventories that were due by 31 December 2013, they could not provide full data on the energy savings achieved in 2013 as the obligation only started on 1 January 2014.

## 5.4 Conclusions: default approach

The EED requirements under the default approach require limited information from Member States. Overall, Member States have not provided more information than strictly necessary, or have provided less information than required. The inventories are of mediocre quality, with only two Member States (Latvia and Slovenia) providing all required data. Other countries present incomplete data, especially on the energy performance of the buildings. Furthermore, whilst not strictly required, clear planning and timeframes for renovations are not provided.

Member States opting for the default approach are not required to report on the expected energy savings resulting from those renovations in either Article 5 or Annex XIV. With the exception of Lithuania, no country provides data on the expected savings by 2020. This is an important weakness of Article 5 of the EED, as it hinders the quantification of the overall impacts of Article 5 and seriously limits the ability to make a sound comparison between Member States opting for the default and the alternative approach.

# 6. Main findings: Member States using the alternative approach

Instead of annually renovating 3% of the floor area of central government buildings, under Article 5 a Member State may opt for the alternative approach and adopt alternative measures that would deliver at least the same amount of savings. Member States that opt for the alternative approach need to report an energy savings target, not a target expressed in floor area to be renovated.

## 6.1 Equivalence with default approach

Calculating and proving the equivalence between the default and alternative approach is crucial for Member States opting for the alternative approach. Article 5(6) states that Member States may “take other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve, by 2020, an amount of energy savings in eligible buildings owned and occupied by their central government that is at least equivalent to that required in paragraph 1, reported on an annual basis.”

As the Guidance note explains, "The fulfilment of either obligation is expected to lead to an equivalent targeted improvement in the energy performance of buildings, the chosen approach will mainly determine only the manner in which this target is reached."

Thus, a country that has chosen the alternative approach should calculate the energy savings that the default approach would have delivered. If the amount of energy savings delivered by the alternative approach is not "at least equivalent" to this, equivalence is not ensured, i.e., the country is making less effort than it would have if it had selected the default approach.

### **Estimation of the area and of the savings**

Only Member States that have chosen the default approach are required to publish an inventory that includes the buildings owned and occupied by central government. Notwithstanding the above, an inventory would be the best way to ensure the equivalence between the default and the alternative approach. The use of the inventory, rather than of estimations, would allow each Member State to calculate the 3% floor area of the buildings covered by the obligation, as well as provide detailed information about the energy performance of each building and the related savings that a renovation could generate. Out of the 17 countries that have selected the alternative approach, only Ireland, Croatia, Malta, Slovakia have published an inventory with their notification that provides clear information about each building covered by the obligation, its area, as well as its energy performance. Portugal and some of the obliged entities of Belgium<sup>20</sup> have also provided an inventory but with incomplete information on floor area and energy performance per building. The remaining 11 Member States have not provided an inventory; their data on building floor areas and performance are derived from a collection of data that is put together by their relevant national ministry or energy agency. To estimate the savings that the renovation would have achieved, as also indicated in Article 5 and the Guidance note provided by the Commission, countries have generally used standard values associated to reference buildings.

### **Cumulative savings over the whole period 2014-2020**

In the Commission guidance note, it is explained that "the energy savings achieved under the alternative approach are cumulative, meaning that Member States are required to achieve the sum of annual savings over the whole period between 2014 and 2020"<sup>21</sup>.

The rationale behind the application of the cumulative savings is that when a renovation takes place, the energy savings do not stop after the first year; on the contrary, the savings remain throughout the entire lifetime of the building. Therefore, savings from alternative measures should be counted cumulatively over the whole period 2014-2020 to be equivalent to savings from renovations that would have taken place under the default approach.

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<sup>20</sup> The notion of central government buildings covers in Belgium building that are owned and occupied by the Federal Government, the Brussels Region, the Flemish Region, the Walloon Region, the German speaking community, the Federation Wallonia-Brussels, the "Commission Communautaire commune" and the "Commission communautaire française."

<sup>21</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0445&from=EN>, page 4

The table below provides a visual clarification of the calculation of cumulative savings and is inspired by the Commission guidance note on Article 7 of the EED, in which the calculation of cumulative savings is explained in greater detail.

**Table 2 - Exemplification of calculation of cumulative savings over the whole period 2014-2020 (the annual savings below are purely illustrative and do not correspond to any reported national figure)**

Year	Energy savings resulting from yearly 3% renovation							Total
2014	40							40
2015	40	38						78
2016	40	38	35					113
2017	40	38	35	30				143
2018	40	38	35	30	27			170
2019	40	38	35	30	27	22		192
2020	40	38	35	30	27	22	21	213
<b>Total</b>								<b>949</b>

This means that to correctly calculate equivalence in line with what is stated in the Guidance note, a Member State should:

- 1) Estimate, for each year, the energy savings that would result from renovating 3% of the central government buildings' useful floor area that does not meet the MEPRs;
- 2) Multiply the estimated annual savings for the remaining number of years up to 2020 (7 years for the renovations carried out in 2014, 6 years for the renovations carried out in 2015 and so on); and
- 3) Sum the year-on-year savings that would be generated by each annual renovation of 3% of the floor area of central government buildings.

### **Spreading of savings over the 2014-2020 period**

While Member States choosing the default approach have to carry out yearly efforts to meet the requirements of Article 5 (with the possibility of having some flexibility), for Member States using the alternative approach there is no guidance on how the savings need to be spread over the period 2014-2020. The savings should ideally increase by a linear progression over the seven year obligation period and reach the peak in the year 2020 in order to contribute towards the 2020 energy efficiency target. To ensure that this happens, cumulative savings in the year 2020 would also need to be taken into account.

Due to the lack of guidance in the current Guidance Document, there is a risk that a Member State could deliver the savings only at the beginning or the end of the 2014-2020 period, or put in place policies that create "stops-and-goes". Even if this is less relevant to prove equivalence with the default approach, it is highly relevant to ensuring that alternative measures selected are persistent, deliver long term effects, transform the market and contribute to meeting the 2020 target.

### **Member States' reports**

Most Member States that apply the alternative approach do not seem to calculate the equivalence with the default approach correctly, as they do not account for cumulative savings over

the whole period 2014-2020. For example, when calculating the savings for the period 2014-2020 some Member States only report cumulative savings for the year 2020, which would be equivalent to the savings in the 2020 column in Table 2 above. As mentioned above, cumulative savings in the year 2020 are extremely relevant, but, as such, do not ensure equivalence with the default approach.

Out of 17 countries that have selected the alternative approach, only five countries - Austria, Croatia, France, Italy and Slovakia - have calculated and reported the equivalence with the default approach by calculating cumulative savings over the whole 2014-2020 period. However, France reports a target that seems inaccurate and too low compared to own calculations.

Belgium, Denmark, Finland, Malta, Sweden, and the Netherlands do not report cumulative savings over the period 2014-2020 but report cumulative savings in the year 2020 only.

UK notifies cumulative savings in 2019 and it fails to communicate the savings for the year 2020, as if its obligation stops on 31 December 2019.

Ireland, Portugal and Poland have only reported an annual target and have not communicated to the Commission their savings for the whole period 2014-2020.

Germany has reported no target at all. The Czech Republic has not notified the Commission the choice of the alternative approach, but mentions the alternative approach to Article 5 in its National Energy Efficiency Action Plan; however, there is no energy savings target.

**Table 3 - Alternative approach: energy savings targets reported by Member States**

*NOTE: The numbers in bold represent the targets reported by the Member States in their notification; the others represent our own calculations and they are approximations as the full data is not available in all cases. The calculations are available upon request, by contacting [secretariat@energycoalition.eu](mailto:secretariat@energycoalition.eu)*

	Annual	Cumulative in 2020 (GWh)	Cumulative 2014-2020 (GWh)	Comment
Austria		12	<b>48</b>	
Belgium	-	-	-	Belgium did not provide an overall target, but separate figures for cumulative savings in 2020 available for each separate entity. <sup>22</sup>
Croatia	<b>1.3</b>	9.5	<b>38</b>	
Czech Republic	-	-	-	No target reported
Denmark		<b>148</b>	610	
Finland		<b>8.2</b>	34	
France		<b>707.9</b>	<b>2477</b>	The cumulative 2014-2020 number appears to be incorrectly calculated. We estimate the correct number to be 3171 GWh.
Germany	-	-	-	No target reported

<sup>22</sup> See footnote 20.

Ireland	<b>1.3</b>	9.1	36.4 <sup>23</sup>	
Italy		<b>111.9</b>	<b>458.7</b>	
Malta	<b>0.08</b>	<b>0.55</b>	2.22	
The Netherlands		<b>60.8</b>	243	
Poland	<b>2.12</b> <sup>24</sup>	-	59,36 <sup>25</sup>	
Portugal	<b>0.6</b>	4.2	16.8 <sup>26</sup>	
Slovakia		<b>13.14</b>	<b>52.7</b>	The Slovak notification suggests that 52.7 GWh would be per year, but looking at the data provided, these seem to be cumulative savings for the whole 2014-2020 period.
Sweden		<b>20.6</b>	85	
UK		<b>163.6</b>	-	The UK does not provide the yearly savings for 2020 and calculate the savings only up to the end of 2019; therefore it is not possible to estimate the cumulative savings for the whole period.

It is not possible to verify whether the savings that Member States have declared are correctly calculated as there is no way to check, for example, the reported floor on which the calculation of their savings is based or the data on the energy performance of their buildings is not available.

## 6.2 Planning and carrying out of alternative measures

Member States are required to provide details about the measures they have selected to comply with Article 5(6) of the EED. The legal text does not provide a full list of the eligible alternative measures, but highlights some examples such as deep renovations and measures that encourage change in the behaviour of buildings' occupants. Member States are therefore free to select the type of interventions they consider most appropriate, with the limitation that they should be carried out in buildings owned and occupied by the central government. In practice, this has resulted in most of the countries listing a long series of alternative measures that are a patchwork of separate actions rather than parts of a well-structured strategy for reducing the energy consumption of the central government building stock (see Table 4).

Among the good practices, countries link the alternative measures planned with available financing to carry them out; for example, Croatia, Italy, Slovakia and Poland clearly refer to the use of Structural and Cohesion Funds to comply with Article 5 obligations.

Nine countries plan to achieve savings by encouraging behavioural change of occupants and raising awareness. Ireland plans to put in place a large-scale behavioural change campaign to

<sup>23</sup> The cumulative savings for the period 2014-2020 have been calculated assuming as an average the yearly savings reported.

<sup>24</sup> Poland reports an annual target of 2122.15GWh, but this appears to be a mistake in the unit (GWh instead of MWh).

<sup>25</sup> See footnote 23.

<sup>26</sup> See footnote 23.

meet its obligations under Article 5. While most of the countries will undertake building renovations among other measures, only Belgium, Italy, and Slovakia have explicitly committed to carrying out deep renovations of central government buildings. Measures whose main purpose is to support the development of renewable energy are also included, as reported in the notifications of Malta and Poland. While the uptake of renewables is in itself positive, it is not an energy efficiency measure and is not considered eligible for implementing Article 5.

Austria, the Belgian region of Flanders, Finland, France, Malta and UK are using the flexibility mechanisms foreseen in Article 5(4)<sup>27</sup>, which are also available for those countries using the alternative approach according to the Commission's guidance note. In particular, Austria, Finland and France list selling-off buildings as one of the alternative measures, the Belgian region of Flanders plans "floor area reductions", Malta more generally refers to "reallocation of employees in offices", while the UK takes into account "estate rationalisation" to set a lower energy savings target up-front.

To assess the credibility and monitor the impacts of the alternative measures, an estimation of the energy savings they would deliver is needed. However, out of the 17 countries that have chosen the alternative approach, only Austria, Croatia, Ireland and Finland give a clear figure for the savings per individual measure.

Finally, the additionality of the alternative measures is also relevant to evaluate the degree of compliance. Several Member States notify policy measures and actions that were already planned before the adoption of the EED. While from a legal perspective this is allowed, it indicates that EU legislation does not always trigger additional action at the national level.

France will comply with Article 5 by implementing the measures already agreed upon and planned under the "Grenelle de l'Environnement". The UK is also planning to use existing schemes that are already operating such as the Greening Government Commitments in the UK, the 2013 Carbon Management Plan for Scotland and the Climate Change Strategy for Wales. Finland, on the other hand seems to be planning new measures in central government buildings as a direct consequence of complying with Article 5 of the EED.

**Table 4 - Overview of alternative measures selected by MSs**

Member State	Planned alternative measures	Savings estimated for measures
<b>Austria</b>	<ol style="list-style-type: none"> <li>1. Building renovation and floor area reduction (selling off)</li> <li>2. Energy services contracting, including for the building envelope</li> <li>3. Energy management, including behavioural change</li> </ol>	Yes (for each individual measure)
<b>Belgium<sup>28</sup></b>	<p><u>Brussels Region</u></p> <ol style="list-style-type: none"> <li>1. Use of PLAGE (Local Action Plan for Energy management).</li> </ol> <p><u>Flemish Region</u></p> <ol style="list-style-type: none"> <li>1. Implementation of recommendations included in the EPC</li> <li>2. Construction of new energy efficient buildings</li> <li>3. Deep renovations</li> </ol> <p><u>Walloon Region</u></p> <ol style="list-style-type: none"> <li>1. Measures resulting from energy audits carried out un-</li> </ol>	No

<sup>27</sup> See Annex III.

<sup>28</sup> The alternative measures planned by the Federal Government, the German speaking community, the Federation Wallonia-Brussels, the "Commission Communautaire commune" and the "Commission communautaire française" have not been analysed as their energy savings targets are very small.

	der the program UREBA (Rational Use of Energy in Public Buildings)	
<b>Croatia</b>	<ol style="list-style-type: none"> <li>1. Programme of energy renovation of public sector buildings 2014–2015</li> <li>2. Energy renovation of public sector buildings 2016–2020</li> <li>3. Connecting Energy Management for Information Systems with the metering and charging systems of energy commodity and water suppliers<sup>29</sup></li> </ol>	Yes (for each individual measure)
<b>Czech Republic</b>	<ol style="list-style-type: none"> <li>1. Behavioural change</li> <li>2. Renovation of heating systems</li> <li>3. Renovation of building envelope<sup>30</sup></li> </ol>	No
<b>Denmark</b>	<ol style="list-style-type: none"> <li>1. Awareness-raising</li> <li>2. Switching to energy saving devices</li> <li>3. Moving over to energy efficient construction</li> <li>4. Optimising land use</li> <li>5. Renovation of buildings</li> <li>6. Operations optimisation</li> </ol>	No
<b>Finland</b>	<ol style="list-style-type: none"> <li>1. Penalties and bonuses in contracts with property management companies</li> <li>2. Raising awareness of building users</li> <li>3. Building renovation</li> <li>4. Technical operational guidance and remote monitoring</li> <li>5. Inspections of down time electricity use</li> <li>6. Space efficiency improvements</li> <li>7. Rental contracts being renewed will take the form of Green Lease contracts.</li> <li>8. Energy efficiency for central government entities in operation in 2014</li> </ol>	Yes (for each individual measure)
<b>France</b>	<p>Existing measures already planned to achieve the objectives of the "Grenelle de l'Environnement". These includes:</p> <ul style="list-style-type: none"> <li>• Renovation of envelope and technical building systems;</li> <li>• Behavioural change of occupants; and</li> <li>• Reduction of area and selling off.</li> </ul>	Some indication
<b>Germany</b>	A national 'Energy refurbishment roadmap for Federal Government properties' (ESB) <sup>31</sup>	No
<b>Ireland</b>	Large scale behavioural change campaign.	Yes (savings are achieved by one single measure)
<b>Italy</b>	<ol style="list-style-type: none"> <li>1. Renovation of technical systems (heating, cooling, lighting)</li> <li>2. Renovation of technical systems and renovation of the building envelope</li> <li>3. Deep renovations</li> </ol>	No
<b>Malta</b>	<ol style="list-style-type: none"> <li>1. New energy efficient lighting systems</li> <li>2. Smart meter installations</li> <li>3. Energy Management systems: control of Air Condition-</li> </ol>	No

<sup>29</sup> Information from the Croatian National Energy Efficiency Action Plan, [http://ec.europa.eu/energy/sites/ener/files/documents/2013\\_hr\\_article5\\_hr.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/2013_hr_article5_hr.pdf)

<sup>30</sup> From Czech Republic National Energy Efficiency Action Plan, page 30, [http://ec.europa.eu/energy/sites/ener/files/documents/2014\\_neeap\\_cs\\_czech-republic.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/2014_neeap_cs_czech-republic.pdf)

<sup>31</sup> Germany National Energy Efficiency Action Plan, page 57, available at [http://ec.europa.eu/energy/efficiency/eed/doc/neeap/2014\\_neeap\\_en\\_germany.pdf](http://ec.europa.eu/energy/efficiency/eed/doc/neeap/2014_neeap_en_germany.pdf)

	<p>ings (ACs) and lighting, dimmers etc.</p> <ol style="list-style-type: none"> <li>4. Replacement of ACs to inverter integrated ACs</li> <li>5. Replacement of fluorescent tubes to LEDs</li> <li>6. Sustainable procurement of appliances and equipment</li> <li>7. PVs installation for own consumption</li> <li>8. SWH installation</li> <li>9. Behavioural change such as the reallocation of employees in offices and habitual behaviour of employees</li> <li>10. Roof and wall insulation/double glazing or glass tinting</li> <li>11. Other measures included in 'minimum energy performance requirements'</li> </ol>	
<b>The Netherlands</b>	<ol style="list-style-type: none"> <li>1. The Government Buildings Agency will continue the realisation of 2% energy savings per year through sustainable procurement, optimising and tuning of energy installations or the deployment of ESCOs and energy performance contracting</li> <li>2. The Ministry of Defence will continue the implementation of recommended energy savings measures from the Energy Performance Advice</li> </ol>	No
<b>Poland</b>	<ol style="list-style-type: none"> <li>1. Fulfilling MEPRs</li> <li>2. Support for energy efficiency and renewables in the public and housing sectors</li> <li>3. Raising awareness and thermal modernisation projects supported by the National Fund for Environmental Protection and Water Management</li> <li>4. Use of renewable energy in buildings used by public entities</li> <li>5. Handbook with best practices to improve energy efficiency available on a website</li> </ol>	Only for some measures
<b>Portugal</b>	<ol style="list-style-type: none"> <li>1. Identification of local energy manager responsible for promoting energy efficiency measures</li> <li>2. Energy services contracting</li> <li>3. Implementation of an energy efficiency action plan</li> </ol>	No
<b>Slovakia</b>	<ol style="list-style-type: none"> <li>1. Improving energy efficiency in buildings (including thermal modernisation as well as renovation of technical building systems)</li> <li>2. Energy audits</li> <li>3. Behavioural change of occupants</li> </ol>	No
<b>Sweden</b>	No measures specified. The notification says that regulation providing details will follow at a later stage.	No
<b>UK</b>	<p>Several existing schemes such as:</p> <ul style="list-style-type: none"> <li>• The Greening Government Commitments in the UK</li> <li>• The 2013 Carbon Management Plan for Scotland</li> <li>• The Climate Change Strategy for Wales</li> </ul>	No

### 6.3 Annex XIV: Article 5 reporting obligation in annual reports

While Member States had to provide details of the alternative measures planned in the notifications, the information on the energy savings achieved each year needs to be included in their Annual Report (Annex XIV, part 1(d)). However, as already explained in section 5.3, there is an inconsistency between the start date of the obligation (1 January 2014) and the first reporting deadline (April 2014) as Member States cannot report on the energy savings achieved in 2013 when the obligation only starts in 2014.

## 6.4 Conclusions: alternative approach

For most of the Member States that have selected the alternative approach, the equivalence with the default approach is unclear or questionable. This is because only 4 Member States report and correctly calculate cumulative annual savings for 2014-2020 and the others just report annual targets or cumulative annual savings in 2020 (or no target at all as for Czech Republic and Germany). The alternative measures that Member States are planning to put in place are most of the time not planned in a systematic way and they are not part of a comprehensive strategy to reduce the energy consumption of the public buildings.

## 7. Estimation of the impacts of Article 5

The renovation rate of the existing building stock is only about 1% per year in Europe. The main purpose of Article 5 is to accelerate the renovation rate, at least for the central government buildings, by setting a renovation target. However, the total energy saved by this article is expected to be rather low. Article 5 covers only a small proportion of buildings, those that are owned and occupied by the central government, de facto excluding rented buildings or even buildings that are not directly occupied by central government such as schools, hospitals, or lower tiers of government at regional and local level.

An estimation of the impact of Article 5 for 2014, the first year of its application is given below. However, this estimation is based on Member States' plans, not on reported data of renovations, or alternative measures that have already happened. These will become available in the Annual Reports due in April 2015 and later years. The estimation of impact is expressed in square metres expected to be renovated for those countries using the default approach, and in expected energy savings for those countries using the alternative approach.

For the 11 countries that have decided to use the default approach to renovate 3% of the floor area of central government buildings, the reported plans for renovations add up to a maximum of 1,064,057 m<sup>2</sup> in 2014. Six Member States (Cyprus, Estonia, Lithuania, Luxemburg, Slovenia and Spain) provided information on the floor area to be renovated in 2014. For the remaining Member States (Bulgaria, Greece, Hungary, Latvia and Romania) this information is the result of our own calculation. The calculations probably lead to an overestimation of the area to be renovated, as Member States only need to renovate the floor area that does not meet MEPRs, while the inventories did not provide full information whether the buildings listed were only those not meeting the MEPRs. Moreover, not all inventories clearly indicate the total number of buildings owned and occupied by the central government, versus other levels of government.

**Table 5 - Planned floor area renovation for countries using the default approach**

	Floor area (m <sup>2</sup> ) planned to be renovated in 2014	Source
Bulgaria	≤ 225 668	Own-calculation based on NEEAP information
Cyprus	18 500	Information provided in the CA report
Estonia	45 000	NEEAP
Greece	≤ 9 291	Own-calculation from inventory
Hungary	≤ 57 000	Own-calculation based on EED notification
Latvia	≤ 77 679	Own calculation based on NEEAP information
Lithuania	66 703	NEEAP
Luxemburg	4 785	EED notification

Romania	≤ 202 175	Own-calculation from inventory
Slovenia	21 249	NEEAP
Spain	336 007	NEEAP
<b>TOTAL</b>	<b>≤ 1 064 057</b>	

The planned savings in 2014 resulting from the alternative measures of those Member States opting for the alternative approach add up to roughly 285 GWh (this excludes Germany and Czech Republic as they did not communicate any target).

**Table 6 - Planned energy savings from alternative measures in 2014**

	<b>Expected Savings for 2014 (GWh)</b>	<b>Source</b>
Austria	12.3	Notification
Belgium	0.0028	Own-calculation from notification
Croatia	1.4	Notification
Czech Republic	-	-
Denmark	23.2	Annex to notification
Finland	1.3	Notification
France	141.4	Notification
Germany	-	-
Ireland	1.3	Notification
Italy	17	Notification
Malta	0.08	Notification
Netherlands	28.7	Own-calculation from notification
Poland	2.1	Notification
Portugal	0.6	
Slovakia	1.8	Own-calculation
Sweden	3.2	Notification
UK	63.3	Notification
<b>TOTAL</b>	<b>285</b>	

Finally, in addition to the impact in terms of energy saved, the *raison d'être* of this article is also to be found in showcasing exemplary renovations of central government buildings: even a single state-of-the art renovation of an iconic public building could create awareness among citizens about energy efficiency in buildings and could indirectly contribute to increase household renovations. However, from the plans it is not possible to evaluate, or quantify, these positive spill-over effects on private renovations.

In conclusion, the impact of the implementation of Article 5, according to Member States' plans, is expected to be very limited for 2014. This is not only due to plans that show poor compliance with the Article 5 requirements, but also to a general lack of ambition of the article itself because of its limited scope.

## 8. Conclusions

The main objective of the EED Article 5 is to ensure that public buildings play an exemplary role in building renovations. The obligation to renovate central government buildings, together with the national building renovation strategy (EED Article 4), should pave the way and kick-start the market for a large-scale renovation of the whole building stock. However, due to cutting back the requirement through the legislative process that led to the EED adoption from all publically owned buildings to only buildings owned and occupied by central governments, and failure of Member States to go beyond the bare legal minimum, this exemplary role will not be fulfilled. Therefore the article must be strengthened.

This report illustrates that actions planned and taken so far at the national level for most countries fall short of what is needed and that additional guidance from the Commission, as well as increased attention towards compliance, cannot be delayed any longer.

All 28 Member States have submitted a notification on Article 5, have made publicly available an inventory of central government buildings, or have described their approach to Article 5 in their NEEAPs. 11<sup>32</sup> countries plan to use the default approach<sup>33</sup>, while 17<sup>34</sup> plan to use the alternative approach<sup>35</sup>. Member States that have chosen the alternative approach have clearly selected the option of compliance that, by its nature, allows them to have more flexibility.

The inventories of national public building stock are crucial to calculate the 3% renovation target, or to serve as a basis for calculating the equivalence with the default approach. It is disappointing to see that, while countries provide lists of central government buildings, information on their energy performance is often lacking or incomplete.

For 13 countries, among the 17 countries that have selected the alternative approach, the equivalence with the default approach is unclear or questionable. This is because only 4 Member States report and correctly calculate cumulative annual savings for 2014-2020 and the others just report annual targets or cumulative annual savings in 2020 (or no target at all as for Czech Republic and Germany). In addition, the reported alternative measures do not seem to be part of a coherent programme for a systematic renovation of the central government building stock.

Information is scattered over several documents (Article 5 notifications, NEEAPs, public inventories published on national websites, EED implementation reports under the Concerted Action and even in notifications on Article 7) which makes monitoring implementation a challenge.

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<sup>32</sup> Bulgaria, Cyprus, Estonia, Greece, Hungary, Latvia, Lithuania, Luxemburg, Romania, Slovenia and Spain

<sup>33</sup> The default approach requires Member States to renovate 3% of the floor area annually up to the relevant MEPRs.

<sup>34</sup> Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Malta, Netherlands, Poland, Portugal, Slovakia, Sweden and The United Kingdom

<sup>35</sup> Member States may take an alternative approach, by taking other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve, by 2020 the same amount of energy savings that would be achieved when renovating 3% of the government buildings stock annually.

Article 5 of the EED has the following flaws, which make monitoring of progress very difficult:

- The default approach does not require Member States to communicate a plan for renovation. This means that, combined with often incomplete inventories, there is very little information on how those countries will implement the article.
- The countries that have selected the default approach only report their plans in terms of square metres to be renovated, not in terms of energy to be saved. The countries using the alternative approach report in terms of energy saved, but in most cases the equivalence with the default approach cannot be demonstrated. For these reasons the energy savings from this Article are hard to quantify.

The impact of this Article, and its contribution to make the public buildings play an exemplary role, is questionable: its scope in terms of both buildings covered (buildings that are owned and occupied by central government) and level of renovation required (at least to MEPRs) is extremely limited.

## 9. Recommendations

As this report shows, most of the inventories and notifications do not put Member States on track for a good implementation of Article 5 of the Energy Efficiency Directive and, therefore, Member States urgently need to step up efforts. The implementation of Article 5 lies within the exclusive responsibility of the national governments, so it is an issue of political will to make it happen.

In the context of a revision of the Energy Efficiency Directive, this article could be further clarified and strengthened to facilitate its implementation as well as to ensure the public buildings set an example and kick-start energy efficiency market as is required.

The European Commission should:

- Revise Article 5 and the guidance note to clearly set out:
  - 1) How the equivalence with the default approach should be calculated by specifying that calculating cumulative savings over the whole period 2014-2020 should be taken into account.
  - 2) How Member State using the alternative approach should spread the measures and the savings across the period. In particular, cumulative savings in 2020 should be achieved to ensure that the bulk of the annual savings are still persisting in the final year of the obligation.
- Ensure that Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Malta, the Netherlands, Poland, Portugal, Sweden and UK revise and update their calculations and targets in the notifications to prove or clarify equivalence with the default approach.
- Continuously monitor progress on implementation of Article 5 closely, particularly by using the Annual Reports to assess and evaluate Member States' progress.
- Facilitate best practice exchange on Article 5, both between Member States and between Member States and stakeholders.
- Use the review of the EED in 2016 as an opportunity to ensure the objective of the article is achieved by strengthening it to:
  - Enlarge the scope of application to all public buildings, not only to central government buildings;

- Require renovation of central government buildings to be deep renovations, not just in line with MEPRs;
  - Require inventories to be developed for all Member States including those that use the alternative approach;
  - Introduce clear criteria for the alternative approach that define eligibility of the alternative measures, in line with Article 7.9 and Annex V of the EED;
  - Require energy savings and renovation plans for Member States opting for the default approach. At this moment they only have to report on the renovated floor area;
  - Base energy performance information exclusively on EPCs, which should in principle contain information on MEPRs as well as recommendations for improving the efficiency of the building;
  - Clarify the reporting requirements for countries choosing the alternative approach by requiring annual savings, cumulative savings in the year 2020 and cumulative savings over the whole period 2014-2020 to be reported; and
  - Make a clear link with EED Article 4 to ensure that renovations of public buildings are taken into consideration within the long term renovation strategies.
- Streamline and broaden the provisions of the EPBD and EED when it comes to issuing an EPC for public buildings. According to the EPBD, an EPC needs to be issued for buildings that are occupied by a public authority and frequently visited by the public; therefore, there are buildings that are covered by EED Article 5 that are not required to have an EPC, such as buildings owned and occupied by a central government, but not visited by the public.

To ensure full compliance with Article 5 Member States should:

- The 13 Member States opting for the alternative approach that have not calculated the equivalence with the default approach over the whole period 2014-2020, must communicate this figure to the Commission as soon as possible.
- The UK should urgently communicate its energy savings for the year 2020 as those are missing from its notification.
- Germany should urgently communicate its energy savings target for 2014-2020.
- The Czech Republic should urgently send a notification to the Commission on its choice of an alternative approach, as to date it has only communicated about Article 5 in its NEEAP.
- The 9 countries, opting for the default approach, that did provide incomplete data in their inventories should make publicly available the complete inventories as soon as possible.

To improve and maximise the impact of Article 5, Member States should consider to:

- Use Article 5 as an incentive to upgrade the government building stock, and use this as a learning lab for deep renovations in other parts of the building stock.
- Enlarge the scope of application to all public buildings, not only to central government buildings and include as well buildings of regional and local authorities.

- Develop an inventory that includes EPCs for each building, as a starting point to plan renovation strategies; an inventory provides the basis for a clear picture of the building stock and facilitates planning of well-tailored and more effective policies.
- Make a clear link with EED Article 4 to ensure that renovations of public buildings are taken into consideration within the long term renovation strategies.
- Work with energy efficiency and building stakeholders to mobilise capacities, increase the quality and support for these renovations and use this to mobilise the private sector.
- Move from viewing energy efficiency as a “burden”, to recognition that “energy efficiency first” is the policy that will allow, not only the public sector, but as well EU businesses and consumers to have affordable, secure and sustainable energy.

# Annex I – Questionnaire

## I INTRODUCTION

1. Will your country comply with Art.5 by using the default approach or the alternative approach?

- Default
- Alternative
- Both

2. Is the implementation of Art.5 included into national law, or into a specific programme, or in another way? Please specify

Open

3. Is there a specific budget line or financing programme available in the country to meet Art.5 requirements?

- Yes
- No
- Not clear

4. If yes, please specify the source (Cohesion funding, national budget, other) and amount of budget available (annual and/or total)

Open

5. Is it mentioned in the report that the renovation of central government buildings will continue past 2020? Please explain.

Open.

*If your country opts for the default approach please continue with the next section (section II Default Approach)*

*If your country opts for the alternative approach please continue with section III (Alternative Approach)*

## II Default approach

6. Does the “default approach” apply to central government buildings, or also other government buildings?

- Central government;
- Regional government;
- Local government;
- Buildings (also) rented by central government;
- Other;
- Specify

7. What is the surface area (in m<sup>2</sup>) that your country plans to renovate each year?

Open

8. Is the surface area equivalent to the requirement of 3% of the total floor area as mentioned in Article 5 (1)?

- Yes
- No

If no, what is the annual renovation target?

Open

9. Is the total floor area on which the 3% should be calculated estimated in the correct way?

- Yes
- No
- Unknown

9.a If no, what is the annual renovation target?

Open

9.b If no, what is the problem?

Open

10. Which parts of the flexibility mechanism Art. 5(3)(4) does your country use

- Surplus of renovated area accounted in another year;
- Count towards the annual rate new buildings;
- Count towards the annual rate buildings sold, demolished or taken out of use;
- None;
- Not clear

11. How much energy savings is the 3% renovation target expected to deliver? (please include unit)

Open

12. Is the inventory of central government buildings publicly available?

- Yes
- No
- Do not know

12.a. Please add weblink or attach document

Open

13. Is the inventory extended to non-central-government public buildings (i.e. regional and local public buildings)?

- Yes
- No
- Do not know

14. Is the inventory comprehensive?

- Yes
- No

14.a If not, which data is lacking?

Open

15. Does the inventory contain information about: (tick boxes)

- .. the energy performance of each building?;
- .. the energy performance certificate being used as the basis of mapping out what are the buildings that do not meet the MEPR?;
- .. the floor area of each building?

16. To what level are the relevant building planned to be renovated?

- In line with MEPRs
- Above MEPRs
- Deep renovation
- NZEB
- Other

17. If the answer to question 16 is deep renovation or Nearly Zero-Energy Buildings, please provide more details

Open

18. Does your country prioritize action in the buildings with the poorest energy performance as a priority?

- Yes
- No
- Not clear

18.a If yes, how this is being done?

Open

*Please continue with section IV (Other Information)*

### **III Alternative approach**

19. Does the report include a section on how the country opting for the alternative measures is establishing equivalence with the default approach?

- Yes
- No
- Do not know

20. Is the equivalence calculated on the basis of an estimation of the surface of the stock and use standard values to be applied to reference buildings (Art 5.6)?

- on the basis of estimation
- standard values
- no
- not clear

21. On which page of the report is information on the methodology provided?

Open

22. What is the annual renovation target (in percentage)?

Open

23 How much energy savings is the renovation target expected to deliver? (please include unit)

Open

24. Is an inventory of central government buildings publicly available (even if not compulsory under the alternative approach, it can be used to calculate equivalence)?

- Yes
- No
- Do not know

Please provide web link, or attach inventory.

Open

25. Which parts of the flexibility mechanism Art. 5(3)(4) does your country use

- surplus of renovated area accounted in another year;
- count towards the annual rate new buildings;
- count towards the annual rate buildings sold, demolished or taken out of use;
- None;
- not clear

26. What are the alternative measures that have been chosen?

- Deep Renovation
- Behavioural Change
- Other
- Open

27. If deep renovation, please explain how this is defined and how these are carried out. If measures encouraging behavioural change or other measures, please specify

Open

#### **IV Other information**

28. Does your country plan to link the obligation under Art. 5 with Art. 4 on long-term renovation roadmaps, Art. 7 (1,5% end-use savings target) and/or financing from the Cohesion and Structural funds?

- Art. 4;
- Art. 7;
- Financing from the Cohesion and Structural Funds

28.a If yes, please explain the link

Open

29. Overall, do you consider this to be a convincing plan on how your country plans to implement the obligation under Art. 5?

- Yes
- No
- Do not know

29.a Please explain

Open

30. Does your organization, or any other organization you know of, plan to follow implementation of your country plan?

Open

30. a If yes, please elaborate

Open

31. Anything else that you consider relevant/remarkable/disappointing?

Open

## **Annex II – List of organisations who contributed to the analysis**

BPIE

Chance4Buildings

Climate Action Network Europe (CAN Europe)

CEE Bankwatch Network

Consultion OÜ, Estonia

FOCUS Slovenia

Coalition for Energy Savings

European Alliance for companies for energy efficiency in buildings (EuroACE)

European Climate Foundation (ECF)

Green Liberty Latvia

MEHI

Quercus Portugal

Réseau pour la transition énergétique (CLER) France

ROCKWOOL UAB, Lithuania

ROCKWOOL Adriatic d.o.o., Croatia

ROCKWOOL International A/S

Slovak Green Building Council

The Danish Ecological Council

WWF Austria

WWF Denmark

WWF European Policy Office

WWF Finland

WWF Spain

WWF UK

## Annex III – Relevant legal text in the EED

### Article 5

#### Exemplary role of public bodies' buildings

1. Without prejudice to Article 7 of Directive 2010/31/EU, each Member State shall ensure that, as from 1 January 2014, 3 % of the total floor area of heated and/or cooled buildings owned and occupied by its central government is renovated each year to meet at least the minimum energy performance requirements that it has set in application of Article 4 of Directive 2010/31/EU.

The 3 % rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m<sup>2</sup> owned and occupied by the central government of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU. That threshold shall be lowered to 250 m<sup>2</sup> as of 9 July 2015.

Where a Member State requires that the obligation to renovate each year 3 % of the total floor area extends to floor area owned and occupied by administrative departments at a level below central government, the 3 % rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m<sup>2</sup> and, as of 9 July 2015, over 250 m<sup>2</sup> owned and occupied by central government and by these administrative departments of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU.

When implementing measures for the comprehensive renovation of central government buildings in accordance with the first subparagraph, Member States may choose to consider the building as a whole, including the building envelope, equipment, operation and maintenance.

Member States shall require that central government buildings with the poorest energy performance be a priority for energy efficiency measures, where cost-effective and technically feasible.

2. Member States may decide not to set or apply the requirements referred to in paragraph 1 to the following categories of buildings:

- (a) buildings officially protected as part of a designated environment, or because of their special architectural or historical merit, in so far as compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance;
- (b) buildings owned by the armed forces or central government and serving national defence purposes, apart from single living quarters or office buildings for the armed forces and other staff employed by national defence authorities;
- (c) buildings used as places of worship and for religious activities.

3. If a Member State renovates more than 3 % of the total floor area of central government buildings in a given year, it may count the excess towards the annual renovation rate of any of the three previous or following years.

4. Member States may count towards the annual renovation rate of central government buildings new buildings occupied and owned as replacements for specific central government buildings demolished in any of the two previous years, or buildings that have been sold, demolished or taken out of use in any of the two previous years due to more intensive use of other buildings.

5. For the purposes of paragraph 1, by 31 December 2013, Member States shall establish and make publicly available an inventory of heated and/or cooled central government buildings with a total useful floor area over 500 m<sup>2</sup> and, as of 9 July 2015, over 250 m<sup>2</sup>, excluding buildings exempted on the basis of paragraph 2. The inventory shall contain the following data:

- (a) the floor area in m<sup>2</sup>; and
- (b) the energy performance of each building or relevant energy data.

6. Without prejudice to Article 7 of Directive 2010/31/EU, Member States may opt for an alternative approach to paragraphs 1 to 5 of this Article, whereby they take other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve, by 2020, an amount of energy savings in eligible buildings owned and occupied by their central government that is at least equivalent to that required in paragraph 1, reported on an annual basis.

For the purpose of the alternative approach, Member States may estimate the energy savings that paragraphs 1 to 4 would generate by using appropriate standard values for the energy consumption of reference central government buildings before and after renovation and according to estimates of the surface of their stock. The categories of reference central government buildings shall be representative of the stock of such buildings.

Member States opting for the alternative approach shall notify to the Commission, by 31 December 2013, the alternative measures that they plan to adopt, showing how they would achieve an equivalent improvement in the energy performance of the buildings within the central government estate.

7. Member States shall encourage public bodies, including at regional and local level, and social housing bodies governed by public law, with due regard for their respective competences and administrative set-up, to:

- (a) adopt an energy efficiency plan, freestanding or as part of a broader climate or environmental plan, containing specific energy saving and efficiency objectives and actions, with a view to following the exemplary role of central government buildings laid down in paragraphs 1, 5 and 6;
- (b) put in place an energy management system, including energy audits, as part of the implementation of their plan;
- (c) use, where appropriate, energy service companies, and energy performance contracting to finance renovations and implement plans to maintain or improve energy efficiency in the long term.

## ANNEX XIV

### GENERAL FRAMEWORK FOR REPORTING

[...]

The second and subsequent reports shall also include points (b) to (e):

[...]

- (c) the total building floor area of the buildings with a total useful floor area over 500 m<sup>2</sup> and as of 9 July 2015 over 250 m<sup>2</sup> owned and occupied by the Member States' central government that, on 1 January of the year in which the report is due, did not meet the energy performance requirements referred to in Article 5(1);
- (d) the total building floor area of heated and/or cooled buildings owned and occupied by the Member States' central government that was renovated in the previous year referred to in Article 5(1) or the amount of energy savings in eligible buildings owned and occupied by their central government as referred to in Article 5(6);