

Information for the European Commission on the alternative approach adopted to implement Article 5(1)-(5) of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1)

PART I

INTRODUCTION

In accordance with Article 5(1) of Directive 2012/27/EU, each Member State must 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.

However, Article 5(6) of Directive 2012/27/EU allows Article 5(1)-(5) to be implemented in an alternative manner. The characteristics of these alternative approaches are set out below.

PART II

CALCULATING THE TARGET

The energy saving target was calculated on the basis of the following assumptions:

1. On the basis of the definition of 'central government' given in Directive 2012/27/EU and the 'Commission Staff Working Document: Guidance note on Directive 2012/27/EU on energy efficiency, amending Directives 2009/125/EC and 2010/30/EC, and repealing Directives 2004/8/EC and 2006/32/EC - Article 5: Exemplary role of public bodies' buildings', the bodies under an obligation to fulfil the requirements of Article 5(1) were identified using the list of central government bodies given in Annex IV to the Public Procurement Directive (2004/18/EC) (except for provincial governors' offices, independent public healthcare establishments, provincial administrative courts and ordinary courts [district, regional and appellate courts], as their remits do not cover the entire territory of Poland).
2. The bodies obliged to comply with the requirements of Article 5(1) have provided information on the useful floor area of buildings, the heat transfer coefficients for building envelopes, the non-renewable primary energy indicator (based on energy performance certificates) and, where there is no energy performance certificate, the figure for the consumption of energy products for heating or for producing domestic hot water.
3. Where a building does not have an energy performance certificate, its primary energy indicator has been estimated using the information sent on energy product consumption.
4. In accordance with Article 4 of Directive 2010/31/EU, minimum energy performance requirements for buildings have been adopted, both for new buildings and for existing buildings undergoing redevelopment. These requirements are set out in the Regulation of the Minister for Transport, Construction and the Maritime Economy of 5 July 2013 amending the Regulation on technical criteria for buildings and the siting thereof

(Journal of Laws 2013, item 926), which enters into force on 1 January 2014. That Regulation has set new requirements for thermal protection and the energy efficiency of buildings and technical systems using energy in buildings. It has also established a 'roadmap' for the requirements up to 2021, so as to achieve near-zero energy building status.

For new buildings, requirements have been laid down concerning the maximum non-renewable primary energy indicator and the maximum heat transfer coefficients, as well as requirements for systems for heating, ventilation, domestic hot water and cooling.

Meanwhile, for existing buildings undergoing redevelopment (i.e. building works leading to a change in the performance or technical parameters of an existing building, except for characteristic parameters, such as volume, floor area, height, length, width or number of storeys), requirements have been laid down for the thermal insulation of building envelopes (maximum heat transfer coefficients) and systems for heating, ventilation, domestic hot water and cooling. The table below sets out data on the buildings which, as at 1 January 2014, will not fulfil the requirements concerning the heat transfer coefficient for building envelopes.

5. In accordance with the 'Commission Staff Working Document: Guidance note on Directive 2012/27/EU on energy efficiency, amending Directives 2009/125/EC and 2010/30/EC, and repealing Directives 2004/8/EC and 2006/32/EC - Article 5: Exemplary role of public bodies' buildings', the adoption of any alternative approach should take account of an estimate of the potential energy saving, expressed in GWh/year, for buildings that do not meet the requirements laid down in the Regulation of the Minister for Transport, Construction and the Maritime Economy amending the Regulation on the technical criteria for buildings and the siting thereof. This saving should be calculated as the difference between the non-renewable primary energy indicator for a building after thermal modernisation and that indicator for an existing building, multiplied by the floor area of the building.

However, given that the requirements given in the aforementioned Regulation for existing buildings are based on the heat transfer coefficient (and not on the non-renewable primary energy indicator), it was assumed for the purpose of calculating the target that, after redevelopment of an existing building, the primary energy indicator would be equal to the maximum value of the primary energy indicator for a new building laid down in that Regulation.

The table below gives data for buildings with a useful floor area in excess of 500 m² owned and occupied by central government that do not meet the minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU for 2014.

Table 1. Energy saving for buildings with a useful floor area in excess of 500 m² owned and occupied by central government that do not meet the minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EC (buildings that do not comply with the maximum permissible heat transfer coefficient and maximum permissible primary energy indicator indicating the annual non-renewable primary energy demand per unit of area) for 2014.

Building use	No of buildings	Useful floor area	Indicator of demand for non-renewable primary energy		Energy saving
			Weighted average	Under the provisions*	
-	No	m ²	kWh/(m ² year)	kWh/(m ² year)	GWh/year
Collective residential	7	19 416.20	437.93	220.00	4 231.47
	9	30 409.69	290.72	195.00	2 910.76
Multi-family residential	4	3 271.15	148.41	115.00	109.30
	11	12 030.62	167.96	105.00	757.43
Public services	77	543 825.34	260.35	190.00	38 256.87
	51	227 066.21	263.48	165.00	22 361.09
Storage, industrial	1	874.40	517.46	235.00	246.98
	12	18 743.85	309.48	210.00	1 864.55
TOTAL	172	855 637.46			70 738.45

* The value of the primary energy indicator indicating the annual non-renewable primary energy demand per unit of area is laid down in the Regulation of the Minister for Transport, Construction and the Maritime Economy amending the Regulation on the technical criteria for buildings and the siting thereof. This requirement was established in accordance with Article 4 of Directive 2010/31/EU.

In addition, given the lack of information on the energy performance standard for 32 buildings with a total useful floor area of 143 418.66 m², it is not possible to define energy savings for them.

It has been estimated on the basis of the above that annual energy savings target is 3% x 70 738.46 = 2 122.15 GWh.

PART III

ALTERNATIVE APPROACHES

In accordance with Article 5(6) of Directive 2012/27/EU, the following alternative measures have been adopted to implement Article 5(1)-(5) of the Directive:

1. Fulfilling the minimum energy performance requirements laid down in the Regulation referred to in point 4 of Part II above

According to its regulatory impact assessment, the Regulation's entry into force will bring about annual energy savings of **1 152 GWh/year**. However, those savings concern new buildings only and the calculation was not carried out for existing buildings.

2. The planned 2014-20 Infrastructure and Environment Operational Programme is due to include a new priority 4.3 'Supporting energy efficiency and renewable energy use in the public and housing sectors'

This programme will lead to achievement of the aims of increasing energy efficiency, increasing renewable energy production and use and reducing CO₂ emissions.

It is envisaged that support under this priority will be directed principally towards the comprehensive energy modernisation of buildings used for services offered to the public and residential buildings, together with the replacement of such buildings' fittings/equipment with energy-efficient alternatives.

It is estimated that this funding will bring about an energy saving of **135 GWh/year**. However, this programme will concern both buildings belonging to public entities and buildings in private ownership (e.g. residential buildings). The relevant energy savings should thus be lower.

3. Support programmes implemented by the National Fund for Environmental Protection and Water Management

The National Fund for Environmental Protection and Water Management is implementing a series of programmes to support energy savings in buildings belonging to public entities, including the following:

- Operational Programme PL 04 'Saving energy and promoting renewable energy';
- the Priority Programme entitled 'Green Investment Scheme Part 5 - Energy management in the buildings of selected public entities'; and
- the 'Environmental Education' Priority Programme for 2014.

These programmes focus on promoting energy savings through the implementation of thermal modernisation projects, increasing the level of environmental awareness and fostering environmentally friendly attitudes in society by promoting the principles of sustainable development.

The aim of the programmes is to limit or prevent emissions of CO₂ by financing initiatives to improve energy efficiency in the buildings of selected public entities.

Given the lack of data available, the expected energy savings from these programmes cannot be estimated.

4. Use of renewable energy in buildings used by public entities

In accordance with Article 5(2a) of the Construction Law Act of 7 July 1994 (Journal of Laws 2013, item 1409), public entities that are constructing buildings, engaging in planned redevelopment of buildings or implementing initiatives to improve energy efficiency are encouraged to use renewable energy.

Given the lack of data available, the expected energy savings from implementation of this provision cannot be estimated.

5. A handbook is to be drawn up on the implementation of measures to improve energy efficiency in the building of houses and apartment blocks and buildings used for services provided to the public

This handbook will be available to the public on the website of the minister responsible for construction, local planning, land use and residential buildings. It will contain a description of measures that help to improve the energy efficiency of buildings, tips on behavioural changes that would help to improve energy efficiency and a description of the existing support systems for improvements in the energy efficiency of buildings.

Given the lack of data available, the expected energy savings from this handbook cannot be estimated.

In view of the foregoing, it is estimated that the above alternative approaches will allow achievement of a target annual energy saving of **2 122.15 GWh/year**.