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Subject: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF  
THE COUNCIL amending Directive 2010/31/EU on the energy  
performance of buildings  
- General approach

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1. The Commission presented the above-mentioned proposal on 30 November 2016, as part of the Clean Energy Package. The objective of the proposal is to promote energy efficiency in buildings and to support building renovation with a view to the long term goal of decarbonising the European building stock. In particular, it foresees the establishment of long term renovation strategies by Member States, strengthens the links between energy efficiency policy and financing and improves the related systems of documentation and statistical data on the energy performance of buildings.

2. The proposal also aims to promote the deployment of charging infrastructure in buildings for electric vehicles, and proposes to introduce a smartness indicator to characterise the readiness of specific buildings to move towards building automation. Finally, in line with the principle of better regulation, the proposal streamlines and simplifies provisions of the Directive that have not delivered the expected results, for example on the inspection of heating and air conditioning systems.
3. The examination of the proposal started in January 2017 under the Maltese Presidency. The Commission presented its proposal and the related impact assessment, followed by an exchange of views where the Commission responded to the questions raised by delegations. The questions focused mainly on the exact nature and scope of the obligations introduced by the proposal. Some delegations criticised the administrative burden and unnecessary complexity of the obligations, as compared to their added value. In particular, on the provisions related to charging points and the smartness indicator several delegations were concerned that introducing clear obligations may be premature or create excessive cost.
4. Overall, delegations supported the Commission proposal, and submitted several requests for modification during the detailed examination of the articles. In order to improve the text and find a suitable compromise, the Presidency made several changes to the text. The most important changes aim to:
  - improve and refine the provisions on the content of the long term renovation strategies and financing (Articles 2a and 10);
  - decrease the number of charging point to at least one for non-residential buildings. Regarding pre-cabling, only one in every three parking space must be pre-cabled for electric charging points in non-residential buildings, while in residential buildings pre-cabling is a general requirement. Further conditions for these obligations to apply were also introduced in the text (Article 8 (2) and (3));
  - make the future scheme on the smartness indicator voluntary and more concrete (Article 8(6) and Annex Ia);
  - establish a single threshold of 70 kW for the inspection of heating and air conditioning systems and reintroduce alternatives to inspections (Articles 14 and 15);

- delete the deduction of renewable energy produced off-site from the net primary energy of the building, and only allow for primary energy factors established by Member States to take into account off-site renewable energy (Annex I).

5. At its meeting on 14 May Coreper examined the latest Presidency compromise and further to the comments by some delegations, agreed to further changes to the text. On that occasion, LU indicated that it cannot support Article 8 on electro-mobility. The compromise as reflected in the Annex is forwarded to Council with a view reaching agreement on a general approach.

The general approach would establish the Council's provisional position on this proposal, and form the basis for the preparations for the negotiations with the European Parliament.

Changes compared to the previous document (doc. 9988/17) are highlighted by **bold underlined**. Recitals have been adapted to reflect the changes in the substantive provisions.

The Commission reserves its position on the entire compromise proposal at this stage of the procedure. DK holds a parliamentary scrutiny reservation. All delegations have a scrutiny reservation on the text.

6. The European Parliament's ITRE Committee appointed Bendt Bendtsen (EPP) as rapporteur and is expected to adopt its opinion in November 2017. The European Economic and Social Committee has delivered its opinion on 26 April 2017, while the Committee of the Regions is expected to deliver its opinion on 13 July 2017.
7. Council is invited to confirm its agreement to the general approach as set out in the Annex.

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Directive 2010/31/EU on the energy performance of buildings**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee<sup>1</sup>,

Having regard to the opinion of the Committee of the Regions<sup>2</sup>,

Acting in accordance with the ordinary legislative procedure,

Whereas:

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<sup>1</sup> OJ C , , p. .

<sup>2</sup> OJ C , , p. .

- (1) The Union is committed to a sustainable, competitive, secure and decarbonised energy system. The Energy Union and the Energy and Climate Policy Framework for 2030 establish ambitious Union commitments to reduce greenhouse gas emissions further (by at least 40 % by 2030, as compared with 1990), to increase the proportion of renewable energy consumed (by at least 27 %) and to make energy savings of at least 27 %, reviewing this level having in mind an Union level of 30 %<sup>1</sup>, and to improve Europe's energy security, competitiveness and sustainability.
- (2) To reach these objectives, the 2016 review of the Energy Efficiency legislation combines: (i) reassessment of the EU's energy efficiency target for 2030 as requested by the European Council in 2014; (ii) review of the core articles of the Energy Efficiency Directive and the Energy Performance of Buildings Directive; (iii) reinforcing the enabling financing environment including the European Structural and Investment Funds (ESIF) and the European Fund for Strategic Investments (EFSI), which will ultimately improve the financial conditions of energy efficiency investments on the market.
- (3) Article 19 of Directive 2010/31/EU of the European Parliament and of the Council<sup>2</sup> requires the Commission to carry out a review by 1 January 2017 at the latest, in the light of the experience gained and progress made during its application, and if necessary, to make proposals.
- (4) To prepare for this review, the Commission took a series of steps to gather evidence on how Directive 2010/31/EU has been implemented in the Member States, focusing on what works and what could be improved.

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<sup>1</sup> EUCO 169/14, CO EUR 13, CONCL 5, Brussels 24 October 2014.

<sup>2</sup> Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (OJ L 153, 18.6.2010, p. 13).

- (5) The outcome of the evaluation and impact assessment indicated that a series of amendments are required to strengthen the current provisions of Directive 2010/31/EU and to simplify certain aspects.
- (6) The Union is committed to developing a secure, competitive and decarbonised energy system by 2050<sup>1</sup>. To meet this goal, Member States and investors need measures that aim to reach the long-term greenhouse gas emission goal and decarbonise the building stock by 2050. To this end, Member States should identify indicative intermediary steps on the mid-term (2030) and on the long-term (2050).
- (7) The provisions on long-term renovation strategies provided for in Directive 2012/27/EU of the European Parliament and of the Council <sup>2</sup> should be moved to Directive 2010/31/EU, where they fit more coherently. Member States may use their long term renovation strategies to address risks related to intense seismic activity affecting energy efficiency renovations and the lifetime of buildings.
- (8) The agendas of the Digital Single Market and the Energy Union should be aligned and serve common goals. The digitalisation of the energy system is quickly changing the energy landscape, from the integration of renewables to smart grids and smart-ready buildings. In order to digitise the building sector, targeted incentives should be provided to promote smart-ready systems and digital solutions in the built environment.

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<sup>1</sup> Communication on an *Energy roadmap 2050*, (COM(2011) 885 final).

<sup>2</sup> 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).

- (9) In order to ensure uniform conditions for the implementation of this Directive, implementing powers on the common European Union scheme for rating the smart readiness of buildings should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council. The smartness indicator should be used to measure buildings' capacity to use ICT and electronic systems to optimise operation and interact with the grid. The smartness indicator will raise awareness amongst building owners and occupants of the value behind building automation and electronic monitoring of technical building systems and will give confidence to the occupant about the actual savings of these new enhanced-functionalities. The use of the scheme for rating the smart readiness of buildings should be voluntary for Member States.
- (9a) In order to ensure consistency with the Interinstitutional Agreement on Better Law-Making of 13 April 2016, the provisions relating to the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be amended. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
- (10) Innovation and new technology also make it possible for buildings to support the overall decarbonisation of the economy. For example, buildings can leverage the development of the infrastructure necessary for the smart charging of electric vehicles and also provide a basis for Member States, if they choose to, to use car batteries as a source of power. ~~To reflect this aim, the definition of technical building systems should be extended.~~

- (10a) Combined with an increased share of renewable electricity production, electric vehicles result in less carbon emissions and better air quality. Electric vehicles constitute a key component of a clean energy transition based on energy efficiency measures, alternative fuels, renewable energies and innovative energy flexibility management solutions. Building codes can be effectively leveraged through the introduction of targeted requirements to support the deployment of the recharging infrastructure in residential and non-residential buildings' car parks. Member States should also **provide for measures to simplify** ~~permitted and approval~~ **the deployment of recharging points** with a view to addressing barriers such as split incentives and administrative complications individual owners encounter when trying to install a recharging point on their parking space.
- (10b) A readily available infrastructure will decrease the costs of installation of recharging points for individual apartment owners and ensure electric vehicle users have access to recharging points. Setting up requirements at EU level for the pre-equipment of parking spaces and the installation of charging points is an effective way to promote electric vehicles in the near future while allowing for further developments at reduced costs in the medium to long-term.
- (10c) However, some geographical areas with specific vulnerabilities may face specific difficulties in applying these requirements. This could concern outermost regions within the meaning of Article 349 TFEU, due to their remoteness, insularity, small size, difficult topography and climate, as well as micro isolated systems, whose electricity grid might need to evolve to cope with a further electrification of local transport. This will not necessarily be the case. In other such regions and systems, electrification of transport may be a powerful tool to address air quality or security of supply problems which such regions and systems often face. In cases where the above difficulties arise, **a possibility should be given to Member States not to apply** ~~adaptations of the requirements~~ **on electro-mobility**, ~~could be decided case by case, in a concerted way between the Commission and the Member States concerned, and tailor made to the specificities of the considered area.~~



(11) The impact assessment identified two existing sets of provisions, whose aim could be achieved in a more efficient manner compared to the current situation. First the obligation, before any construction starts, to carry out a feasibility study on highly-efficient alternative systems becomes an unnecessary burden. Second, provisions related to inspections of heating systems and air-conditioning systems were found to not sufficiently ensure, in an efficient manner, the initial and maintained performance of these technical systems. Even cheap technical solutions with very short payback periods, such as hydraulic balancing of the heating system and installation/replacement of thermostatic control valves, are insufficiently considered today. Provisions related to inspections are amended to ensure a better result from inspections. **These amendments place the focus of inspections on central heating and air conditioning systems, and exclude small heating systems such as electric heaters and wood stoves.**

(12) Notably for large installations, building automation and electronic monitoring of technical building systems have proven to be an effective replacement for inspections. The installation of such equipment should be considered as the most cost-effective alternative to inspections in large non-residential and multifamily buildings of a sufficient size that allow a payback of less than three years. For small scale installations, the documentation of the system performance by installers will support the verification of compliance with the minimum requirements set for all technical building systems.

(12a) The implementation of regular inspections schemes of heating and air conditioning systems under Directive 2010/31/EU involved a significant administrative investment by Member States and the private sector, including training and accreditation of experts, quality assurance and control, and the costs of inspections. Member States that have laid down the necessary measures to establish regular inspections, and implemented effective inspection schemes, may find appropriate to continue to operate these schemes, including for smaller heating and air conditioning systems. **In such cases, there is no need for Member States to notify those more stringent requirements to the Commission.**

- (13) To ensure their best use in building renovation, financial measures related to energy efficiency should be linked to the quality of renovation works. These measures should therefore be linked to the performance of the equipment or material used for the renovation, and to the level of certification or qualification of the installer, or to the improvement achieved due to the renovation, which should be assessed by comparing energy performance certificates (EPCs) issued before and after the renovation, or another transparent and proportionate method.
- (14) [deleted]
- (15) The current independent control systems for EPCs can be used for compliance checking and should be strengthened to ensure certificates are of good quality. Where the independent control systems for EPCs is complemented by a database, going beyond the requirements of this Directive, it can be used for compliance checking and for producing statistics on the regional/national building stocks. High-quality data on the building stock is needed and this could be partially generated by the databases that almost all Member States are currently developing and managing for EPCs.
- (16) To meet the objectives of energy efficiency policy for buildings, the transparency of EPCs should be improved by ensuring that all necessary parameters for calculations, for both certification and minimum energy performance requirements, are set out and applied consistently. Member States should put in place adequate measures to ensure, for example, that the performance of installed, replaced or updated technical building systems for space heating, air conditioning or water heating is documented in view of building certification and compliance checking.

- (17) Commission Recommendation (EU) 2016/1318 of 29 July 2016 on nearly zero-energy buildings presented how the implementation of the Directive could simultaneously ensure the transformation of the building stock and the shift to a more sustainable energy supply, which also supports the heating and cooling strategy<sup>1</sup>. To make sure appropriate implementation takes place, the general framework for the calculation of the energy performance of buildings should be updated with the support of the work elaborated by the European Committee for Standardisation (CEN), under Mandate M/480 that was given by the European Commission.
- (18) The provisions of this Directive should not prevent Member States from setting more ambitious energy performance requirements at building level and for building elements as long as such measures are compatible with Union law. It is consistent with the objectives of this Directive and of Directive 2012/27/EC that these requirements may, in certain circumstances, limit the installation or use of products subject to other applicable Union harmonisation legislation, provided that such requirements should not constitute an unjustifiable market barrier.
- (19) The objectives of this Directive, namely to reduce the energy needed to meet the energy demand associated with the typical use of buildings, cannot be adequately achieved by the Member States acting alone. The objectives of the Directive can be more effectively ensured by acting at Union level because this guarantees consistency shared objectives, understanding and political drive. Therefore, the Union adopts measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on the European Union. In accordance with the principle of proportionality, as also set out in that Article, this Directive does not go beyond what is necessary to achieve those objectives.

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<sup>1</sup> COM(2016) 51 final

- (20) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents<sup>1</sup>, Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments. With regard to this Directive, the legislator considers the transmission of such documents to be justified.
- (21) Directive 2010/31/EU should therefore be amended accordingly,

HAVE ADOPTED THIS DIRECTIVE:

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<sup>1</sup> OJ C 369, 17.12.2011, p. 14.

## *Article 1*

Directive 2010/31/EU is amended as follows:

(1) in Article 2, point 3 is replaced by the following:

‘3. ‘technical building system’ means technical equipment for space heating, space cooling, ventilation, domestic hot water, built-in lighting, building automation and control, on-site electricity generation, or a combination of such systems, including those using energy from renewable sources, of a building or building unit;’;

(1a) in Article 2, the following points 15a and 15b and 20 are added:

‘15a. ‘heating system’ means a combination of the components required to provide a form of indoor air treatment, by which temperature is increased’;

‘15b. heat generator’ means the part of a heating system that generates useful heat using one or more of the following processes:

(a) the combustion of fuels in, for example, a boiler;

(b) the Joule effect, taking place in the heating elements of an electric resistance heating system;

(c) capturing heat from ambient air, ventilation exhaust air, water or ground heat source(s) using a heat pump’;

(20) ‘micro isolated system’ means any system with consumption less than 500 GWh in the year 1996, where there is no connection with other systems;

(2) after Article 2, an Article 2a ‘Long-term renovation strategy’ is inserted:

*Article 2a*

1. Member States shall establish a long-term strategy for mobilising investment in the renovation of the national stock of residential and non-residential buildings, both public and private. This strategy shall encompass:
  - (a) an overview of the national building stock based, as appropriate, on statistical sampling and expected share of refurbished buildings in 2020;
  - (b) identification of cost-effective approaches to renovations relevant to the building type and climatic zone;
  - (c) policies and measures to stimulate cost-effective deep renovations of buildings, including staged deep renovations;
  - (d) a forward-looking perspective to guide investment decisions of individuals, the construction industry and financial institutions;
  - (e) an evidence-based estimate of expected energy savings and wider benefits.

2. In their long-term renovation strategy Member States shall set out a roadmap with measures that aim, with a view to the long term 2050 goal of reducing greenhouse gas emissions in the EU by 80-95 % compared to 1990, to ensure a highly energy efficient and decarbonised national building stock. The roadmap shall include indicative milestones for 2030 and 2050.

In addition, the long term renovation strategy shall take into account the need to alleviate energy poverty, in accordance with the criteria defined by Member States.<sup>1</sup>

3. To guide investment decisions as referred to in point (d) of paragraph 1, Member States shall consider the introduction of mechanisms for:

- (a) the aggregation of projects, to make it easier for investors to fund the renovations referred to in points (b) and (c) in paragraph 1;
- (b) reducing the perceived risk of energy efficiency operations for investors and the private sector; and
- (c) the use of public funding to leverage additional private-sector investment or address specific market failures.

**4. Member States may use their long term renovation strategies to address risks related to intense seismic activity affecting energy efficiency renovations and the lifetime of buildings.:**

(3) Article 6 is replaced by the following:

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<sup>1</sup> Subject to the outcome of the discussions on Directive [XXXX] on common rules for the internal market in electricity, Article 29 of that Directive may be cross-referenced. In addition, recitals 40 or 41 of that Directive should be supplemented with a clarification that energy policy is considered as a potential contribution to mitigating energy poverty in general and not as its cause.

## 'Article 6

### New buildings

Member States shall take the necessary measures to ensure that new buildings meet the minimum energy performance requirements set in accordance with Article 4.'

- (4) in Article 7, the fifth subparagraph is deleted;
- (5) Article 8 is amended as follows:
  - (a) in paragraph 1, the third subparagraph is deleted;
  - (b) paragraph 2 is replaced by the following:

‘2. With regard to new non-residential buildings and those undergoing major renovation, provided that the building has more than ten parking and the building and the car park are owned by the same entity, Member States shall ensure that:

- a) if the car park is located inside the building, and, for major renovations, the renovation measures include the car park or the electric infrastructure of the building; or
- b) if the car park is physically adjacent to the building and, for major renovations, the renovation measures include the car park,

at least one recharging point within the meaning of Directive 2014/94/EU on the deployment of alternative fuels infrastructure<sup>1</sup>, is installed, which is capable of starting and stopping charging in reaction to price signals, together with ducting infrastructure, that is to say the conduits for electric cables, to enable the installation at a later stage of recharging points for electric vehicles for at least one in every three parking spaces.

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<sup>1</sup> OJ L 307, 28.10.2014, p. 1



The Commission shall report to the European Parliament and the Council by 1 January 2023 on the scope for European building policy to contribute to the promotion of electromobility and propose measures if appropriate.

Member States may decide not to set or apply the requirements referred to in the first subparagraph to buildings owned and occupied by small and medium-sized enterprises as defined in Title I of the Annex to [Commission Recommendation 2003/361/EC](#) of 6 May 2003.

3. With regard to new residential buildings and those undergoing major renovations, provided that the building has more than ten parking spaces, Member States shall ensure that:

a) if the car park is located inside the building, and, for major renovations, the renovation measures include the car park or the electric infrastructure of the building; or

b) if the car park is physically adjacent to the building and, for major renovations, the renovation measures include the car park,

ducting infrastructure, that is to say the conduits for electric cables, is installed, in order to enable at a later stage the installation of recharging points for electric vehicles for every parking space.

3a. Paragraph 2 and paragraph 3 shall not apply to buildings in relation to which building permit applications or equivalent applications have been submitted before or within one year after the date referred to in Article 3(1) of this Directive.

3b. Member States shall provide for **measures in order to** ~~simplify~~ ~~ied permitting and approval procedures allowing both owners and tenants to~~ **the deployment of** recharging points in new and existing residential and non-residential buildings, without prejudice to the property and tenancy law of the Member States.

4. Member States may decide not to set or apply the requirements referred to in paragraphs 2 and 3 to public buildings which are already covered by Directive 2014/94/EU **and to buildings located in micro isolated energy systems or in outermost regions within the meaning of Article 349 TFEU if this would lead to substantial problems for the operation of the local energy system and would endanger the stability of the local grid.**

4a. For existing buildings, Member States may decide not to apply or set the requirements set out in paragraphs 2 and 3, if the cost of the recharging and ducting installations exceeds 5% of the total cost of the major renovation.

~~4b. Member States which can demonstrate that the application of all or some of the requirements of paragraphs (2) and (3) would lead to substantial problems for the operation of a micro isolated energy system or of the energy system of an outermost region within the meaning of Article 349 TFEU and would endanger the stability of the local grid may apply to the Commission for a derogation. The Member State concerned shall submit all relevant information to the Commission which shall inform the other Member States before taking a decision. That decision shall be published in the Official Journal of the European Union.~~

(c) the following paragraphs 5 and 6 are added:

‘5. Member States shall ensure that, when a technical building system for space heating, air conditioning or water heating is installed, replaced or upgraded, unless this does not have an impact on its energy performance, the new performance of the system or of the altered part is documented and passed on to the building owner, so that it remains available and can be used for the verification of compliance with the minimum requirements set pursuant to paragraph 1 and the issue of energy performance certificates. Without prejudice to Article 12, Member States shall decide whether to require the issue of a new energy performance certificate.

6. The Commission shall, by 31 December 2019, in consultation with the relevant sectors, adopt a voluntary common European Union scheme for rating the smart readiness of buildings. This scheme will include the definition of a smart readiness indicator, will establish a methodology to calculate it and will provide technical input on the modalities for its effective implementation at national level, in line with Annex Ia. That measure shall be adopted in accordance with the examination procedure referred to in Article 26. Member States may recognise or use the scheme by adapting it to national circumstances. The scheme for rating the smart readiness of a building shall be voluntary for both building owners and Member States. '

(6) Article 10 is amended as follows:

(a) paragraph 6 is replaced by the following:

'6. Member States shall link their financial measures for energy efficiency improvements in the renovation of buildings:

a) to the energy performance of the equipment or material used for the renovation. In this case, the equipment or material used for the renovation shall be installed by an installer with the relevant level of certification or qualification, or

b) to the improvement achieved due to such renovation by comparing energy performance certificates issued before and after renovation; or

c) to the results of another relevant, transparent and proportionate method that indicates the improvement in energy performance.';

(b) the following paragraph 6a is inserted:

'6a. If Member States put in place a database for EPCs, aggregated anonymised data compliant with EU and national data protection requirements shall be made available on request for statistical and research purposes, at least to the public authorities.';

(7) Article 14 is amended as follows:

(a) paragraph 1 is replaced by the following:

'1. Member States shall lay down the necessary measures to establish a regular inspection of the accessible parts of systems with an effective rated output for space heating purposes of over 70 kW, such as the heat generator, control system and circulation pump(s) used for heating buildings. That inspection shall include an assessment of the heat generator efficiency and the heat generator sizing compared with the heating requirements of the building. The assessment of the heat generator sizing does not have to be repeated as long as no changes were made to the heating system or as regards the heating requirements of the building in the meantime.

**Member States that maintain more stringent requirements pursuant to Article 1(3) shall be exempted from the obligation to notify them to the Commission.'**

(b) paragraphs 2, 3, 4 and 5 are deleted and replaced by the following:

'2a. As an alternative to paragraph 1, Member States may opt to take measures to ensure that adequate advice is given to users concerning the replacement of heat generators, other modifications to the heating system and alternative solutions to assess the efficiency and appropriate size of the heating generator. The overall impact of this approach shall be equivalent to the impact arising from the measures taken pursuant to paragraph 1.

2. As an alternative to paragraph 1 for non-residential buildings, Member States may set requirements to ensure that they are equipped with building automation and control systems. These systems shall be capable of:

(a) continuously monitoring, analysing and allowing for adjusting energy usage;

- (b) benchmarking the building's energy efficiency, detecting losses in efficiency of technical building systems, and informing the person responsible for the facilities or technical building management about opportunities for energy efficiency improvement;
- (c) allowing communication with connected technical building systems and other appliances inside the building, and being interoperable with technical building systems across different types of proprietary technologies, devices and manufacturers.

3. As an alternative to paragraph 1 for residential buildings, Member States may set requirements to ensure that they are equipped:

- (a) with continuous electronic monitoring that measures systems' efficiency and inform building owners or managers when it has fallen significantly and when system servicing is necessary, and
- (b) with effective control functionalities to ensure optimum generation, distribution and use of energy.';

(8) Article 15 is amended as follows:

(a) paragraph 1 is replaced by the following:

'1. Member States shall lay down the necessary measures to establish a regular inspection of the accessible parts of air-conditioning systems with an effective rated output of over 70 kW. The inspection shall include an assessment of the air-conditioning efficiency and the sizing compared to the cooling requirements of the building. The assessment of the sizing does not have to be repeated as long as no changes were made to this air-conditioning system or as regards the cooling requirements of the building in the meantime.

**Member States that maintain more stringent requirements pursuant to Article 1(3) shall be exempted from the obligation to notify them to the Commission.'**

(b) paragraphs 2, 3, 4 and 5 are deleted and replaced by the following:

'2a. As an alternative to paragraph 1, Member States may opt to take measures to ensure the provision of advice to users concerning the replacement of air-conditioning systems, other modifications to the air-conditioning system and alternative solutions to assess the efficiency and appropriate size of the air-conditioning system. The overall impact of this approach shall be equivalent to that arising from the provisions set out in paragraph 1.

2. As an alternative to paragraph 1 for non-residential buildings, Member States may set requirements to ensure that they are equipped with building automation and control systems. These systems shall be capable of:

- (a) continuously monitoring, analysing and adjusting energy usage;
- (b) benchmarking the building's energy efficiency, detecting losses in efficiency of technical building systems, and informing the person responsible for the facilities or technical building management about opportunities for energy efficiency improvement;
- (c) allowing communication with connected technical building systems and other appliances inside the building, and being interoperable with technical building systems across different types of proprietary technologies, devices and manufacturers.

3. As an alternative to paragraph 1 for residential buildings, Member States may set requirements to ensure that they are equipped:

- (a) with continuous electronic monitoring that measures systems' efficiency and inform building owners or managers when it has fallen significantly and when system servicing is necessary, and
- (b) with effective control functionalities to ensure optimum generation, distribution and use of energy.';

(9) in Article 19, ‘2017’ is replaced by ‘2028’ and the following sentence is added:

‘As part of this review, the Commission shall examine the role of district or neighbourhood approaches in European building policy, for instance in the context of overall refurbishment schemes applying to a number of buildings in a spatial context instead of a single building’;

(10) in Article 20(2), the first subparagraph is replaced by the following:

‘Member States shall in particular provide information to the owners or tenants of buildings on energy performance certificates, their purpose and objectives, on cost-effective ways to improve the energy performance of the building and, where appropriate, on financial instruments available to improve the energy performance of the building.’;

(11) Article 23 is replaced by the following:

#### ‘Article 23

##### Exercise of the delegation

1. The power to adopt delegated acts referred to in Articles 5 and 22 is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 5 and 22 shall be conferred on the Commission for a period of 5 years from XXX [*date of entry into force of the Directive*]. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the 5-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.

3. The delegation of power referred to in Articles 5 and 22 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. Before the adoption of a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Inter-institutional Agreement on Better Law-Making of 13 April 2016<sup>1</sup>.

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Articles 5 and 22 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or the Council.’;

(12) Articles 24 and 25 are deleted;

(12a) Article 26 shall be replaced by the following:

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<sup>1</sup> OJ L 123, 12.5.2016, p. 1



## 'Article 26

### Committee procedure

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.'

(13) The Annexes are amended in accordance with the Annex to this Directive.

### *Article 2*

With the exception of its last subparagraph, the provisions of Article 4 of the Directive 2012/27/EU on energy efficiency<sup>1</sup> are deleted.

### *Article 3*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by XXXX [*Please insert the date [ ] 24 months following the date of entry into force*] at the latest. They shall immediately communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

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<sup>1</sup> OJ L 315, 14.11.2012, p. 13

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 4*

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

*Article 5*

This Directive is addressed to the Member States.

Done at Brussels,

*For the European Parliament*  
*The President*

*For the Council*  
*The President*

**ANNEX**

Annexes to the Directive are amended as follows:

1. Annex I is amended as follows:

(c) point 1 is replaced by the following:

‘1. The energy performance of a building shall be determined on the basis of the calculated or actual energy use and reflect its typical energy use for heating, cooling, domestic hot water, ventilation and built-in lighting (mainly in the non-residential sector).

The energy performance of a building shall be expressed by a numeric indicator of primary energy use in kWh/(m<sup>2</sup>.y), for the purpose of both energy performance certification and compliance with minimum energy performance requirements. The methodology applied for its determination shall be transparent and open to innovation.

Member States shall describe their national calculation methodology following the national annexes of the overarching standards<sup>1</sup> developed under mandate M/480 given by the European Commission to the European Committee for Standardisation (CEN). This shall not constitute a requirement to comply with those standards. The description of national calculation methods shall be voluntary in the national annexes of the other standards<sup>2</sup>; ’

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<sup>1</sup> ISO/EN 52000-1, 52003-1, 52010-1, 52016-1, and 52018-1.

<sup>2</sup> EN 12098-1, EN 12098-3, EN 12098-5, EN 12831-1, EN 12831-3, EN 15232-1, EN 15316-1, EN 15316-2, EN 15316-3, EN 15316-4-1, EN 15316-4-2, EN 15316-4-3, EN 15316-4-4, EN 15316-4-5, EN 15316-5, EN 15378-1, EN 15378-3, EN 15459-1, EN 15500-1, EN 16798-3, EN 16798-5-1, EN 16798-5-2, EN 16798-7, EN 16798-9, EN 16798-13, EN 16798-15, EN 16798-17, EN 16946-1, EN 16947-1, EN ISO 10077-1, EN ISO 10077-2, EN ISO 10211, EN ISO 12631, EN ISO 13370, EN ISO 13786, EN ISO 13789, EN ISO 14683 and EN ISO 6946, ISO/EN 52017-1 and ISO/EN 52022-1.

- (d) point 2 is replaced by the following:

‘2. The energy needs for space heating, space cooling, domestic hot water and adequate ventilation shall be calculated in order to ensure minimum health and comfort levels defined by Member States.

The calculation of primary energy shall be based on primary energy or weighting factors per energy carrier, which may be based on national, regional or local annual weighted averages or on more specific information made available for individual district system.

Primary energy factors or weighting factors shall be defined by Member States. Primary energy factors shall take into account renewable energy with regard to the energy supplied through the energy carrier.

**3. To express the energy performance of a building, Member States may choose to define additional numeric indicators of total, non-renewable and renewable primary energy use, and greenhouse gas emission produced in kg of CO<sub>2</sub> equivalent per m<sup>2</sup> per year.’;**

- (e) in point 4, the introductory phrase is replaced by the following:

‘4. The positive influence of the following aspects shall be taken into account.’;

2. Annex II is amended as follows:

(f) first paragraph of point 1 is replaced by the following:

‘1. The competent authorities or bodies to which the competent authorities have delegated the responsibility for implementing the independent control system shall make a random selection of all the energy performance certificates issued annually and subject them to verification. The sample shall be of a sufficient size to ensure statistically significant compliance results.’;

(g) point 3 is added:

‘3. When information is added to a database it shall be possible for national authorities to identify the originator of the addition, for monitoring and verification purposes.’;

3. The following Annex Ia is added:

#### 'Annex Ia

##### Common general framework for rating the smart readiness of buildings

1. The smart readiness indicator, that is to say an indicator characterising the capabilities of buildings with regard to operation, monitoring and management, interaction with occupants, demand response and interoperability of automation and control systems and technical building systems, shall provide synthetic and meaningful information to potential owners and tenants.

2. The methodology for determining the smart readiness indicator shall allow for a cost-effective and reliable calculation of the smart readiness indicator, in a simple way and relying as much as possible on already available data. This methodology shall ensure technology and supplier neutrality and shall take into account European standards, in particular on interoperability, and comply with European and national privacy and data protection rules.
  
  3. The modalities for an effective implementation of the scheme shall not have any negative impact on existing national energy performance certification schemes and build on related initiatives at national level.'
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