



Council of the
European Union

Brussels, 27 November 2017
(OR. en)

14707/17

**Interinstitutional File:
2016/0381 (COD)**

LIMITE

**ENER 464
ENV 971
TRANS 505
ECOFIN 993
RECH 376
CODEC 1875**

NOTE

From:	General Secretariat of the Council
To:	Permanent Representatives Committee
No. Cion doc.:	15108/16 ENER 416 ENV 756 TRANS 477 ECOFIN 1152 RECH 341 IA 125 CODEC 1797 + ADD 1 - 5
Subject:	Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2010/31/EU on the energy performance of buildings - Mandate for the second trilogue

DOCUMENT PARTIALLY ACCESSIBLE TO THE PUBLIC (13.12.2017)

1. On 27 October 2017, the Permanent Representatives Committee granted the mandate for the first informal trilogue on the Commission's proposal on the energy performance of buildings with a view to negotiating a first reading agreement with the European Parliament.
2. On 7 November 2017, the first informal trilogue took place and fulfilled the expectations to:
1) confirm the list of technical and key political issues at stake; 2) discuss the main political issues that were prepared in Coreper during the preparation for the mandate on 27 October 2017; and 3) identify varying degrees of convergence on these political issues and mandate the technical level to explore compromise drafting on some of their aspects.

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Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2010/31/EU on the energy performance of buildings¹

COMISSION PROPOSAL (COD 0381/16 - doc. 15108/16)	EP PLENARY TEXT	COUNCIL GENERAL APPROACH (doc. 11120/1/17 REV 1)	Compromise proposals
<p>Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,</p> <p>Having regard to the proposal from the European Commission,</p> <p>After transmission of the draft legislative act to the national parliaments,</p> <p>Having regard to the opinion of the European Economic and Social Committee,</p> <p>Having regard to the opinion of the Committee of the Regions,</p> <p>Acting in accordance with the ordinary legislative procedure,</p> <p>Whereas:</p>		<p>THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,</p> <p>Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,</p> <p>Having regard to the proposal from the European Commission,</p> <p>After transmission of the draft legislative act to the national parliaments,</p> <p>Having regard to the opinion of the European Economic and Social Committee¹,</p> <p>Having regard to the opinion of the Committee of the Regions²,</p> <p>Acting in accordance with the ordinary legislative procedure,</p> <p>Whereas:</p>	<p>DELETED FROM THIS POINT UNTIL THE END OF THE DOCUMENT (page 123)</p>

¹ **Additions by Council are marked in bold underline, deletions by []**

¹ OJ C , , p. .

² OJ C , , p. .

Recital 1- AM 1			
<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 %, and to improve Europe's energy security, competitiveness and sustainability.</p>	<p>(1) The Union is committed to a sustainable, competitive, secure and decarbonised energy system and to a high level of human health protection. The Energy Union and the Energy and Climate Policy Framework for 2030 establish ambitious Union commitments to reduce greenhouse gas emissions further (by 80 to 95 % by 2050, as compared with 1990), to increase the proportion of renewable energy consumed in accordance with Directive .../2018/EU [on the promotion of the use of energy from renewable sources, COD (2016)0382] and to make energy savings in accordance with Directive 2012/27/EU as amended by Directive .../2018/EU [COD 2016/0376] and to improve Europe's energy security, competitiveness, affordability and sustainability.</p>	<p>(1) The Union is committed to developing 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 %³, and to improve Europe's energy security, competitiveness and sustainability.</p>	

³ EUCO 169/14, CO EUR 13, CONCL 5, Brussels 24 October 2014.

<p>(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.</p>		<p>(2) To reach [] <u>those</u> objectives, the 2016 review of the Energy Efficiency legislation combines[] <u>the</u> reassessment of the EU's energy efficiency target for 2030 as requested by the European Council in [] <u>2014, the</u> review of the core articles of the Energy Efficiency Directive and the Energy Performance of Buildings Directive[] <u>and the reinforcement of</u> 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.</p>	
<p>(3) Article 19 of Directive 2010/31/EU of the European Parliament and of the Council 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.</p>		<p>(3) Article 19 of Directive 2010/31/EU of the European Parliament and of the Council⁴ 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 [] <u>the application of that Directive</u>, and if necessary, to make proposals.</p>	

⁴ 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).

(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.		(4) To prepare for [] that 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.	
(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.		(5) The outcome of the [] review 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.	

Recital 6- AM 2

<p>(6) The Union is committed to developing a secure, competitive and decarbonised energy system by 2050. To meet this goal, Member States and investors need milestones to ensure that buildings are decarbonised by 2050. In order to ensure this decarbonised building stock by 2050, Member States should identify the intermediary steps to achieving the mid-term (2030) and long-term (2050) objectives.</p>	<p>(6) The Union is committed to developing a secure, competitive and decarbonised energy system by 2050. To <i>achieve</i> this goal, <i>it is vital that the existing building stock, which is responsible for about 36 % of all CO² emissions in the Union, is highly energy efficient and decarbonised up to nearly zero-energy standard by 2050. Member States should seek a cost-efficient equilibrium between decarbonising energy supplies and reducing final energy consumption. To that end, Member States and investors need a clear vision to guide their policies and investment decisions, which includes well-defined national milestones and actions for energy efficiency to achieve the short-term (2030), mid-term (2040) and long-term (2050) objectives.</i></p>	<p>(6) The Union is committed to developing a [] <u>sustainable</u>, competitive, <u>secure</u>, and decarbonised energy system by 2050⁵. To meet this goal, Member States and investors need [] <u>measures that aim to reach the long-term greenhouse gas emission goal and decarbonise the</u> building stock by [] <u>2050. To that end</u>, Member States should identify [] <u>indicative</u> intermediary steps [] <u>for</u> the mid-term (2030) and <u>for the</u> long-term (2050)[] .</p>	
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⁵ Communication on an *Energy roadmap 2050*, (COM(2011) 885 final).

Recital 6a new- AM 3			
	<p><i>(6a) The 2015 Paris Agreement on climate change following the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 21) must be reflected in the Union's efforts to decarbonise its building stock. Taking into account that almost 50 % of Union's final energy is used for heating and cooling, of which 80 % is used in buildings, achievement of Union's energy and climate goals strongly depends on the Union's efforts to refurbish its building stocks by giving priority to energy efficiency and savings, making full use of the 'energy efficiency first' principle as well as ensuring effective deployment of renewables.</i></p>		

Recital 7- AM 4			
(7) The provisions on long-term renovation strategies provided for in Directive 2012/27/EU of the European Parliament and of the Council should be moved to Directive 2010/31/EU, where they fit more coherently.	(7) The provisions on long-term renovation strategies provided for in Directive 2012/27/EU of the European Parliament and of the Council should be moved to Directive 2010/31/EU, where they fit more coherently, <i>and updated to clarify the ambitions of a highly energy efficient and decarbonised building stock. The long-term renovation strategies and the renovations they stimulate will boost growth and competitiveness through the creation of local, non-outsourcable jobs, and provide citizens with energy efficient, healthy and safe buildings.</i>	(7) The provisions on long-term renovation strategies provided for in Directive 2012/27/EU of the European Parliament and of the Council ⁶ should be moved to Directive 2010/31/EU, where they fit more coherently. <u>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.</u>	

⁶ 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).

Recital 7a new- AM 5			
	<p><i>(7a) To facilitate the cost effective achievement of the Union's climate and energy goals as well as cost-efficient renovations in buildings, national long-term renovation strategies should integrate considerations for improvements to health and indoor climate, including by combining renovation with the removal of asbestos and other harmful substances, preventing the illegal removal of harmful substances, and facilitating compliance with existing legislative acts such as Directive 2009/148/EC^{1a} and Directive (EU) 2016/2284^{1b}.</i></p>		

Recital 7b new- AM 6			
	<p><i>(7b) To achieve a highly energy efficient and decarbonised building stock, and to ensure that the long-term renovation strategies will deliver the necessary progress, in particular by an increase in deep renovations, Member States must offer clear guidelines and outline measurable, targeted actions, including for the worst performing segments of the national building stock, for energy-poor consumers, for social housing and for households subject to split-incentive dilemmas, while taking into consideration affordability. To further support the necessary improvements in the national rental stock, Member States should consider the introduction or continued application of requirements for a certain level of energy performance, according to the energy performance certificates, for rental properties.</i></p>		<p><i>(7b) To achieve a highly energy efficient and decarbonised building stock, and to ensure that the long-term renovation strategies should deliver the necessary progress, in particular by an increase in deep renovations, Member States should offer clear guidelines and outline measurable, targeted actions and equal access to financing, including for the worst performing segments of the national building stock, for energy-poor consumers, for social housing and for households subject to split-incentive dilemmas, while taking into consideration affordability. To further support the necessary improvements in the national rental stock, Member States should consider the introduction or continued application of requirements for a certain level of energy performance, according to the energy performance certificates, for rental properties.</i></p>

Recital 7c new - AM 7			
	<p><i>(7 c) Taking into account the Commission's impact assessment, specifying that renovation would be needed at an average rate of 3 % to cost-effectively accomplish the Union's ambitions for energy efficiency, it is essential that Member States specify their expected output and contribution to achieving the overall energy efficiency target(s) in 2030 of [X %], in accordance with Directive 2012/27/EU as amended by Directive .../2018/EU [COD 2016/0376], taking into account that every 1 % increase in energy savings reduces gas imports by 2,6 % and thereby contributes actively to the Union's energy independence.</i></p>		
Recital 7d new- AM 8			
	<p><i>(7d) Ambitious goals for deep renovation of the existing building stock will create millions of jobs in the Union, in particular in small and medium-sized enterprises. In that context, it is necessary for Member States to provide a clear link between their national long-term renovation strategies and adequate initiatives to promote skills development and education in the construction and energy efficiency sectors.</i></p>		

Recital 8- AM 9

(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.

(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. ***This offers new opportunities for energy savings, by providing consumers with more accurate information about their consumption patterns, and by enabling the system operator to better manage the grid.*** In order to digitise the building sector ***and promote a systemic development of smart cities,*** targeted incentives should be provided to promote ***suitable and*** smart-ready systems and digital solutions in the built environment ***while taking into account the less digitally engaged consumers. Those incentives should take into account the Union's connectivity targets and ambitions for deployment on high-capacity communication networks, which are a prerequisite for smart homes and well-connected communities, also ensuring that the development of***

(8) The agendas of the Digital Single Market and the Energy Union should be aligned and **should** 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.

	<i>such networks is not hampered by building solutions that might negatively affect connectivity.</i>		
Recital (new 8a)			
Recital 9- AM 10			
<p>(9) In order to adapt this Directive to the technical progress, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission to supplement it by defining the smartness indicator and enabling its implementation. 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.</p>	<p>(9) In order to adapt this Directive to the technical progress, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union <i>(TFEU)</i> should be delegated to the Commission to supplement it by defining the smartness indicator and enabling its implementation <i>in accordance with the methodology set out in this Directive</i>. The smartness indicator should be <i>coherent with energy performance certificates and should be</i> used to measure buildings' capacity to use ICT and electronic systems to optimise operation, <i>performance, indoor comfort</i> 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</p>	<p>(9) In order to [] <u>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.</u> 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 [] <u>should</u> raise awareness amongst building owners and occupants of the value behind building automation and electronic monitoring of technical building systems and [] <u>should</u> give confidence to [] <u>occupants</u> about the actual savings of these new enhanced-functionalities. <u>The use of the scheme for rating the smart readiness of buildings should be</u></p>	

	actual savings of these new enhanced-functionalities.	<u>voluntary for Member States.</u>	
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		<p><u>(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.</u></p>	
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Recital 10- AM 11			
(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 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.	(10) Innovation and new technology also make it possible for buildings to support the overall decarbonisation of the economy, <i>including the transport sector</i> . For example, buildings can leverage the development of the infrastructure necessary for <i>deployment of</i> the smart charging of electric vehicles <i>and</i> 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.	(10) Innovation and new technology also make it possible for buildings to support the overall decarbonisation of the economy. For example, buildings can [] <u>be leveraged for</u> the development of the infrastructure necessary for the smart charging of electric vehicles <u>and</u> also provide a basis for Member States, if they choose to, to use car batteries as a source of power. []	
Recital 10a new- AM 12			
	<i>(10a) Pre-cabling and pre-tubing set the right conditions for the rapid deployment of recharging points if and where needed. Member States should therefore ensure the development of electro-mobility in a balanced and cost-effective way. In particular, where a major renovation touching upon electric infrastructure takes place, adequate roll out of pre-cabling and pre-tubing should follow with a view to providing the sufficient cabling, tubing and electric power within the</i>	<u>(10a) Combined with an increased share of renewable electricity production, electric vehicles produce less carbon emissions and result in 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 car parks</u>	

	<i>meaning of Directive 2014/94/EU for the installation of recharging points in parking spaces.</i>	<u>of residential and non-residential buildings. Member States should also provide for measures to simplify the deployment of recharging infrastructure with a view to addressing barriers such as split incentives and administrative complications which individual owners encounter when trying to install a recharging point on their parking space.</u>	
Recital 10b new- AM 13			
	<i>(10b) A clear vision for a decarbonised building stock by 2050 requires a high level of ambition. When the energy use will be brought closer to zero the share of embodied energy will be more decisive in the whole life-cycle of the buildings. The future vision for a decarbonised building stock should include the embodied energy in buildings. Therefore building with wood is positive for the climate.</i>	<u>(10b) Readily available infrastructure will decrease the costs of installation of recharging points for individual owners and ensure electric vehicle users have access to recharging points. Establishing requirements for electromobility at Union level concerning 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 enabling further developments at reduced costs in the medium to long-term.</u>	

Recital 10c new- AM 14			
	<p><i>(10c) Research into, and the testing of, new solutions for optimising the energy performance of historical buildings and sites should be encouraged, while also safeguarding and preserving cultural heritage.</i></p>	<p><u>(10c) However, some geographical areas with specific vulnerabilities may face specific difficulties in fulfilling the requirements on electro-mobility. This could be the case for the 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. In such cases, Member States should be allowed not to apply the requirements on electro-mobility. Notwithstanding this derogation, the electrification of transport may be a powerful tool to address air quality or security of supply problems which these regions and systems often face.</u></p>	
Recital 10d new- AM 15			
	<p><i>(10d) Member States should take into account that innovation and new technology ask for enhanced investments in education and skills, which are necessary for the successful implementation of such technologies.</i></p>		

Recital 10e new - AM 16			
	<i>(10e) This Directive can hardly prejudge development and innovation in the field of electronic mobility, buildings or smart systems. Therefore the principle of technology neutrality should apply throughout this Directive.</i>		
Recital 10f new- AM 17			
	<i>(10f) Nature-based solutions, such as well-designed street vegetation, green roofs and walls providing insulation and shade to buildings reduce energy demand by limiting the need for heating and cooling and improving a building's energy performance.</i>		
Recital 10g new- AM 18			
	<i>(10g) The requirements for electro-mobility infrastructure set out in this Directive should form part of a holistic strategic urban planning in Member States to promote alternative, safe and sustainable modes of transport and applying a coherent approach to the electrical infrastructure by providing for example dedicated parking infrastructure for electrical bicycles and for people of reduced mobility.</i>		

<p>(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-efficiency 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.</p>	<p>(11) The impact assessment identified existing provisions, whose aim could be achieved in a more efficient manner compared to the current situation. 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. <i>Furthermore, 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 and should be explored further, including as solutions for assisting energy-poor consumers.</i> Provisions related to inspections are amended to ensure a better result from inspections.</p>	<p>(11) The impact assessment identified two existing sets of provisions, whose aim could be achieved [] more efficiently. First, the obligation [] to carry out a feasibility study on highly [] efficient alternative systems [] before starting any construction, is an unnecessary burden. Second, provisions [] concerning the inspections of heating systems and air-conditioning systems were found to be inefficient in that they did not sufficiently ensure[] the initial and [] continued performance of these technical systems. Even cheap energy efficiency 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. [] The provisions on inspections [] should be amended to ensure a better result from inspections. <u>Those amendments should place the focus of inspections on central heating and air conditioning systems, and should exclude small heating systems such as electric heaters and wood stoves.</u></p>	
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Recital 11a new- AM 20			
	<p><i>(11a) For new buildings, Member States should ensure that, before construction starts, the technical, environmental and economic feasibility of high-efficiency alternative systems is taken into account. Such systems could include decentralised energy supply systems based on energy from renewable sources or waste heat; cogeneration; district or block heating or cooling and heat pumps.</i></p>		
Recital 11b new- AM 21			
	<p><i>(11b) The 2009 WHO guidelines provide that, concerning indoor air quality, better performing buildings provide higher comfort levels and wellbeing for their occupants and improve health. Thermal bridges, inadequate insulation and unplanned air pathways can result in surface temperatures below the dew point of the air and in dampness. It is therefore essential to ensure a complete and homogeneous insulation of the building including balconies, fenestrations, roofs, walls, doors and floor.</i></p>		

<p>(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. The current possibility to opt for alternative measures is therefore deleted. For small scale installations, the documentation of the system performance by installers and the registration of this information in the databases on energy performance certification will support the verification of compliance with the minimum requirements set for all technical building systems and reinforce energy performance certificates role. In addition, existing regular safety inspections and programmed maintenance work will remain an opportunity to provide direct advice on energy efficiency improvements.</p>	<p>(12) Building automation, <i>facility management</i> and electronic monitoring of technical building systems <i>holds great potential to provide cost-effective and significant energy savings for both consumers and businesses. For large installations in particular, building automation and electronic monitoring of technical building systems have proven to be effective and can, in some cases, replace</i> inspections in large non-residential and multifamily buildings of a sufficient size that allow a payback of less than three years <i>as it enables acting on the information provided, thereby securing energy savings over time.</i> The current possibility to opt for alternative measures is therefore deleted, <i>however it should be possible to exempt technical systems explicitly covered by an ESCO programme from the inspection requirement. To avoid double inspections, installations that are operated by a utility or network operator and that are subject to inspections at the system level should be exempt from this requirement.</i> For small-scale installations, the documentation of the system performance by installers</p>	<p>(12) [] Building automation and electronic monitoring of technical building systems have proven to be an effective replacement for inspections, in particular for large systems. The installation of such equipment should be considered as the most cost-effective alternative to inspections in large non-residential and [] multi-apartment 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[] .</p>	
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	and the registration of this information in the databases on energy performance certification will support the verification of compliance with the minimum requirements set for all technical building systems and reinforce energy performance certificates (EPC) role. In addition, existing regular safety inspections and programmed maintenance work will remain an opportunity to provide direct advice on energy efficiency improvements.		
Recital 12a new- AM 23			
	<i>(12 a) Member States should ensure that energy performance upgrades of existing buildings also contribute to achieving a healthy indoor environment, including by the removal of asbestos and other harmful substances and by avoiding problems such as mould, as well as safeguarding the fundamental safety structures of the buildings, in particular in relation to fire safety and seismic safety.</i>		

Recital 12b new - AM 24			
	<i>(12b) It is important to ensure that measures to improve the energy performance of buildings do not focus only on the building envelope, but include all elements and technical systems in a building.</i>		
		<u>(12a) The implementation of regular inspection schemes of heating and air conditioning systems under Directive 2010/31/EU involved a significant administrative and financial 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 adopted the necessary measures to establish regular inspections, and that have implemented effective inspection schemes, may find appropriate to continue to operate those schemes, including for smaller heating and air conditioning systems. In such cases, there should be no obligation for Member States to notify those more stringent requirements to the Commission.</u>	

Recital 13- AM 25			
(13) To ensure their best use in building renovation, financial measures related to energy efficiency should be linked to the depth of the renovation, which should be assessed by comparing energy performance certificates (EPCs) issued before and after the renovation.	(13) To ensure their best use in building renovation, public financial measures related to energy efficiency should be linked to the depth of the renovation and promote holistic building renovations as the best way of ensuring high energy performance and improved indoor comfort. Such renovations should be assessed by comparing energy performance certificates (EPCs) issued before and after the renovation where proportionate to the extent of the renovation, or by similar adequate and proportionate documentation methods.	(13) To ensure [] <u>that</u> financial measures related to energy efficiency <u>are applied in the best way in building renovation, they</u> should be linked to[] <u>the quality of the renovation works. Those 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</u> the renovation, which should be assessed by comparing energy performance certificates (EPCs) issued before and after the renovation, <u>or another transparent and proportionate method.</u>	
Recital 13a new- AM 26			
	<i>(13a) Financial mechanisms and incentives should have a central position in the national long-term renovation strategies and be actively promoted by Member States, including by facilitating energy efficient mortgage standards for certified energy efficient building renovations, promoting investments for public authorities in an energy efficient building stock, such as by</i>		

	<i>clarifying accounting standards for public investments, and by providing accessible and transparent advisory tools for consumers on their financing options for energy efficient renovations in buildings.</i>		
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(13b) Mechanisms to finance energy-efficient new buildings, as well as energy efficiency measures in the building stock, should come from private, public-private and public sources. For private investments, the risk for investments in the modernisation of the building stock should be reduced. Public-private partnerships should especially be taken into consideration for energy efficiency measures in public buildings to decrease the financial burden on smaller and financially weaker cities, regions and Member States. Further, Member States should encourage energy efficiency measures, especially in social housing and housing for the weakest market participants, by public financial support for which Union funds could be used.

Recital 13c new - AM 28			
	<i>(13c) Where the energy performance certificate attests to the fact that a building's energy performance has improved, it should be possible to include the certification costs in the incentive provided by the Member State concerned.</i>		
Recital 14- AM 29			
(14) Access to financing is easier when good-quality information is available. Public buildings with a total useful floor area over 250 m ² should therefore be required to disclose their actual energy consumption.	(14) Access to financing is easier when good-quality information is available. Public buildings <i>that are owned by the State, region or municipality or that are privately owned for public use</i> , with a total useful floor area over 250 m ² should therefore be required to disclose their actual energy consumption.	[]	

Recital 15- AM 30			
(15) The current independent control systems for EPCs should be strengthened to ensure certificates are of good quality, 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 registers and databases that almost all Member States are currently developing and managing for EPCs.	(15) The current independent control systems for EPCs should be strengthened to ensure certificates are of good quality, can be used for compliance checking and for producing <i>harmonised</i> statistics on the <i>local</i> /regional/national building stocks. High-quality data on the building stock is needed and this could be partially generated by the registers and databases that almost all Member States are currently developing and managing for EPCs.	(15) The current independent control systems for EPCs <u>can be used for compliance checking and</u> should be strengthened to ensure certificates are of good quality[] . <u>Where the independent control systems for EPCs is complemented by a database, going beyond the requirements of this Directive, it</u> 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.	
Recital 16 - AM 31			
(16) To meet the objectives of energy efficiency policy for buildings, the transparency of EPCs should be improved by ensuring that 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 is documented in view of building	(16) To meet the objectives of energy efficiency policy for buildings, the transparency of EPCs should be improved by ensuring that 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 is documented in view of building	(16) To meet the objectives of energy efficiency policy for buildings, the transparency of EPCs should be improved by ensuring that that all necessary parameters for calculations, for both certification and minimum energy performance requirements, are set out and applied consistently. Member States should [] <u>adopt</u> adequate measures to ensure, for example, that the performance of installed, replaced or updated <u>upgraded</u> technical building systems <u>for space heating, air conditioning or water heating</u> is documented in view of	

certification and compliance checking.	certification and compliance checking. <i>With a view to ensuring a well-functioning EPC system, the Commission should, when reviewing the application of this Directive, assess the need for further harmonisation of EPCs.</i>	building certification and compliance checking.	
Recital 16a new- AM 32			
	<i>(16a) Recognition, promotion and application of the now finalised set of CEN EPBD standards across the Member States would have a positive impact on the revision of this Directive.</i>		
Recital 17- AM 33			
(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. 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	(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. 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	(17) Commission Recommendation (EU) 2016/1318 of 29 July 2016 on nearly zero-energy buildings [] described how the implementation of [] this 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 ⁷ . 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	

⁷ COM(2016) 51 final

European Committee for Standardisation (CEN), under Mandate M/480 that was given by the European Commission.	European Committee for Standardisation (CEN), under Mandate M/480 that was given by the European Commission. <i>Calculations of energy performance of buildings should be applied pursuing the optimal energy performance, in accordance with the principle of “energy efficiency first” and while expressed in a numeric indicator of primary energy use in kWh/(m².y), Member States should supplement this by providing an additional numeric indicator for the entire building’s overall energy needs.</i>	(CEN), under Mandate M/480 [] from 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.		(18) The provisions of this Directive should not prevent Member States from setting more ambitious energy performance requirements [] for buildings and for building elements as long as such [] requirements 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.	

<p>(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.</p>	<p>(19) <i>Since</i> 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 <i>sufficiently</i> achieved by the Member States <i>but can rather, by reason of the need to ensure consistency of the shared objective, understanding and political drive, be better achieved</i> at Union level the Union <i>may adopt</i> 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 set out in that Article, this Directive does not go beyond what is necessary <i>in order</i> to achieve those objectives. <i>This Directive fully respects the Member States' national specifics and differences and their competences in accordance with Article 194(2) TFEU. Further, the objective of this Directive is to allow the sharing of best practices in order to facilitate the transition to a highly energy efficient building stock in the Union,</i></p>	<p>(19) [] <u>Since the</u> objectives of this Directive, namely to reduce the energy needed to meet the energy demand associated with the typical use of buildings, cannot be [] <u>sufficiently</u> achieved by the Member States [] <u>but can rather, by reason of the guaranteed</u> consistency <u>of</u> shared objectives, understanding and political drive[] <u>, be better achieved at Union level</u>, the Union [] <u>may adopt</u> 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[] set out in that Article, this Directive does not go beyond what is necessary to achieve those objectives.</p>	
<p>(20) In accordance with the Joint Political Declaration of 28 September 2011 of Member States</p>		<p>(20) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the</p>	

and the Commission on explanatory documents, 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.		Commission on explanatory documents ⁸ , 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:		(21) Directive 2010/31/EU should therefore be amended accordingly, HAVE ADOPTED THIS DIRECTIVE:	

⁸ OJ C 369, 17.12.2011, p. 14.

ARTICLES			
Article 1 – paragraph 3 – subparagraph 1 a (new) - AM 35			
	<i>(-1) in Article 1(3), the following subparagraph is added:</i>		
	<i>“Member States may apply the minimum requirements for the overall energy performance of buildings to a whole district instead of to a single building, to allow an integrated approach to the district’s energy and mobility system within the scope of a holistic refurbishment scheme, provided that each building achieves the minimum requirement for the overall energy performance.”</i>		
Article 2 – paragraph 1 – point 3 - AM 36			
Directive 2010/31/EU is amended as follows:		Directive 2010/31/EU is amended as follows:	
(1) in Article 2, point 3 is replaced by the following:		(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, on-site	3. ‘technical building system’ means technical equipment for space heating, space cooling, ventilation, <i>management of indoor air quality, domestic hot water, built-in indoor and outdoor lighting systems, solar</i>	‘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	

infrastructure for electro-mobility, or a combination of such systems, including those using energy from renewable sources, of a building or building unit;’;	<i>shading, elevators and escalators, building automation and control, building data transmission and storage, on-site electricity generation and storage, on-site infrastructure for electro-mobility, or a combination of such systems, including those using energy from renewable sources, of a building or building unit;</i>	systems, including those <u>systems</u> using energy from renewable sources, of a building or building unit;’;	
Article 2 – paragraph 1 – point 3 a (new) AM 37			
	<i>(1a) in Article 2, the following point is inserted:</i>	<u>(1a) in Article 2, the following points are inserted:</u>	
	<i>“(3a) ‘trigger point’ means an opportune moment, for example from a cost-effectiveness, cost-efficiency or disruption perspective, in the life cycle of a building for carrying out energy efficiency renovations;”</i>		

		<u>‘15a. ‘heating system’ means a combination of the components required to provide a form of indoor air treatment, by which temperature is increased’;</u>	
		<u>‘15b. ‘heat generator’ means the part of a heating system that generates useful heat using one or more of the following processes:</u>	

		<u>(a) the combustion of fuels in, for example, a boiler;</u>	
		<u>(b) the Joule effect, taking place in the heating elements of an electric resistance heating system;</u>	
		<u>(c) capturing heat from ambient air, ventilation exhaust air, water or ground heat source(s) using a heat pump’;</u>	
Article 2 – paragraph 1 – point 3 b (new) - AM 38			
	<i>(1b) in Article 2, the following point is inserted:</i>		
	<i>“(3b) ‘building renovation passport’ means a long-term roadmap, which is based on quality criteria and follows an energy audit, and which outlines relevant measures and renovations that would improve the energy performance of a specific building;”</i>		

Article 2 – paragraph 1 – point 3 c (new) - AM 39			
	<i>(1c) in Article 2, the following point is inserted:</i>		
	<i>“(3c) ‘building automation and control system’ means a system comprising all products, software and engineering services for automatic controls including interlocks, monitoring, optimisation, for operation, human intervention and management to achieve energy-efficient, economical and safe operation of technical building systems;”</i>		
Article 2 – paragraph 1 – point 3 d (new) - AM 40			
	<i>(1d) in Article 2, the following point is inserted: “3d. ‘passive element’ means a building envelope element or other elements which participate to passive techniques that aim to reduce the energy needs for heating or cooling and the energy use for lighting and ventilation and hence improve thermal and visual</i>		

	<i>comfort;”</i>		
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Article 2 – paragraph 1 – point 17 AM 41

<p>17. ‘effective rated output’ means the maximum calorific output, expressed in kW, specified and guaranteed by the manufacturer as being deliverable during continuous operation while complying with the useful efficiency indicated by the manufacturer;</p>	<p><i>(1e) In Article 2, point 17, is replaced by the following:</i></p> <p>“17. ‘effective rated output’ means the maximum calorific output, expressed in kW, specified and guaranteed by the manufacturer as being deliverable during continuous operation while complying with the useful efficiency indicated by the manufacturer, <i>where</i>:</p> <p><i>(a) ‘full load’ means maximal capacity demand of technical building systems for space heating, space cooling, ventilation and domestic hot water; and</i></p> <p><i>(b) ‘part load’ means part of full-load capacity representing average operating conditions;”</i></p>		
		<p><u>‘(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.’;</u></p>	

Article 2 – paragraph 1 – point 19 a (new) - AM 42			
	<i>(1f) in Article 2, the following point is added:</i>		
	<i>‘(19a) ‘decarbonised building stock’ means a building stock performing to nearly zero-energy building level and which is energy efficient to the maximum of its potential.’</i>	(2) The following Article [] is inserted []:	
Article 2a – paragraph 1 AM 43			
<u>‘Long-term renovation strategy’</u>			
<p>(a) the first paragraph consists of Article 4 of the Directive 2012/27/EU on energy efficiency, other than its last subparagraph;</p> <p>Member States shall establish a long-term strategy for mobilising investment in the renovation of the national stock of residential and commercial buildings, both public and private. This strategy shall encompass:</p>	<p>(a) <i>the following paragraph 1 is inserted:</i></p> <p><i>‘1. Member States shall establish a long-term strategy for the transformation of the national stock of residential and commercial buildings, both public and private, into a highly energy efficient and decarbonised building stock by 2050. The strategy shall include actions for mobilising investment to facilitate renovation needed to achieve the 2050 goals. That strategy shall encompass:</i></p>	<p><u>1.</u> Member States shall establish a long-term strategy for mobilising investment in the renovation of the national stock of residential <u>[] and non-residential</u> buildings, both public and private. This strategy shall encompass:</p>	
<p>(a) an overview of the national building stock based, as appropriate, on statistical sampling</p>	<p>(a) <i>an overview of the national building stock including relevant building typologies, based, as appropriate, on statistical sampling;</i></p>	<p>(a) [] an overview of the national building stock based, as appropriate, on statistical sampling <u>and expected share of refurbished buildings in 2020;</u></p>	

(b) identification of cost-effective approaches to renovations relevant to the building type and climatic zone;	<i>(b) identification of cost-effective approaches and actions to stimulate technology neutral renovations relevant to the building type and climatic zone, considering relevant trigger points in the life-cycle of the building;</i>	(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;	<i>(c) policies and actions to stimulate cost-effective deep renovations of buildings, including staged deep renovations and decarbonisation of the heating and cooling demand, for example by introducing a scheme for building renovation passports;</i>	<u>(c) policies and measures to stimulate cost-effective deep renovations of buildings, including staged deep renovations;</u>	

	<i>(d) policies and actions to support targeted low-cost energy efficiency measures and renovations;</i>		
	<i>(e) policies and actions to target the worst performing segments of the national building stock, households subject to energy poverty and households subject to split-incentive dilemmas as well as multi-family dwellings facing challenges to conduct renovations, while taking into consideration affordability;</i>		
	<i>(f) policies and actions to target all public buildings, including social housing;</i>		
	<i>(g) policies and actions aiming to accelerate technological transition towards smart and well-connected buildings and communities as well as the deployment of very high-capacity networks;</i>		

	<i>(h) an overview of national initiatives to promote skills and education in the construction and energy efficiency sectors as well as education in both passive elements and smart technologies;</i>		
(d) a forward-looking perspective to guide investment decisions of individuals, the construction industry and financial institutions;	<i>(i) a forward-looking perspective to guide investment decisions of individuals, the construction industry, public institutions including municipalities, housing cooperatives and financial institutions;</i>	<u>(d) a forward-looking perspective to guide investment decisions of individuals, the construction industry and financial institutions;</u>	

(e) an evidence-based estimate of expected energy savings and wider benefits.	<i>(j) an evidence-based estimate of expected energy savings and wider benefits, such as those related to health, safety and air quality.</i>	<u>(e) an evidence-based estimate of expected energy savings and wider benefits.</u>	
	<i>The development and implementation of Member States' long-term renovation strategies shall be supported by structured, permanent stakeholder platforms, including representatives from local and regional communities, social dialogue representatives including employees, employers, SMEs and the construction sector, as well as minority representatives.</i>		
(2) after Article 2, an Article 2a 'Long-term renovation strategy', to be submitted in accordance with the integrated national energy and climate plans of the Regulation (EU) XX/20XX [Governance of the Energy Union], is inserted:			
(a) the first paragraph consists of Article 4 of the Directive 2012/27/EU on energy efficiency, other than its last subparagraph;			
(b) the following paragraphs 2 and 3 are inserted:			

Article 2a – paragraph 2 – subparagraph 2 AM 44

<p>2. In their long-term renovation strategy referred to in paragraph 1, Member States shall set out a roadmap with clear milestones and measures to deliver on the long-term 2050 goal to decarbonise their national building stock, with specific milestones for 2030.</p>	<p>In their long-term renovation <i>strategies</i> referred to in paragraph 1, Member States shall set out a roadmap with clear milestones and <i>actions</i> to deliver on the long-term 2050 goal to <i>ensure a highly energy efficient and decarbonised</i> national building stock, with specific milestones for 2030 <i>and 2040 as well as measurable progress indicators</i>.</p>	<p>[] 2. In their long-term renovation strategy [] Member States shall set out a roadmap with [] measures <u>that aim, with a view to</u> [] the long-term 2050 goal [] <u>of reducing greenhouse gas emissions in the Union by 80-95 % compared to 1990, to ensure a highly energy efficient and decarbonised</u> national building stock[] <u>. The roadmap shall include indicative</u> milestones for [] <u>2030 and 2050.</u></p>	
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Article 2a – paragraph 2 – subparagraph 1 a (new) - AM 45			
	<i>In their long-term renovation strategies, Member States shall specify how their milestones contribute to achieving the Union's energy efficiency target(s) in 2030 of [X %], in accordance with Directive 2012/27/EU, as amended by Directive .../2018/EU [COD 2016/0376], and the Union's target to reduce greenhouse gas emissions by 80 to 95 % by 2050.</i>		
Article 2a – paragraph 2 – subparagraph 2 - AM 46			
In addition, the long term renovation strategy shall contribute to the alleviation of energy poverty.	In addition, the long term renovation <i>strategies</i> shall <i>outline relevant actions that</i> contribute to the alleviation of energy poverty <i>while supporting equal access to financing tools for energy efficiency renovations for vulnerable households.</i>	In addition, the long -term renovation strategy shall [] <u>take into account the need to alleviate</u> energy poverty[] <u>, in accordance with the criteria to be defined by Member States.</u> ⁹	

⁹ **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 2a – paragraph 3 - AM 47			
3. To guide investment decisions as referred to in point (d) in paragraph 1, Member States shall introduce mechanisms for:	3. To <i>enable and</i> guide investment decisions as referred to in paragraph 1, Member States shall introduce <i>or sustain</i> mechanisms for:	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;	(a) the aggregation of projects, including by investment platforms , to make it easier for investors to fund the renovations referred to in paragraph 1;	(a) the aggregation of projects, to make it easier for investors to fund the renovations referred to in points (b) and (c) [] of paragraph 1;	

<p>(b) de-risking energy efficiency operations for investors and the private sector; and</p>	<p>(b) <i>the reduction of the perceived risk of</i> energy efficiency operations for investors and the private sector, <i>such as by subjecting the factor for collateral with certified energy efficiency renovations to lower risk weighting in capital requirements;</i></p>	<p>(b) [] <u>reducing the perceived risk of</u> energy efficiency operations for investors and the private sector; and</p>	
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(c) the use of public funding to leverage additional private-sector investment or address specific market failures.’;	(c) the use of public funding to leverage additional private-sector investment, <i>including within the framework of the Smart Finance for Smart Buildings Initiative</i> , or address specific market failures;	(c) the use of public funding to leverage additional private-sector investment or address specific market failures.	
	<i>(c a) in line with current Eurostat guidance and clarifications within the framework of ESA 2010, the guidance of investments into an energy efficient public building stock and clarification on the interpretation of accounting rules, to support a holistic approach to public authorities investments;</i>		
	<i>(c b) the support for project development assistance as well as the facilitation of aggregation of small and medium sized enterprises in groups and consortia to enable packaged solutions for potential clients; and</i>		
	<i>(c c) the establishment of accessible and transparent advisory tools, such as one-stop-shops for consumers and energy advisory services informing on energy efficiency renovations, and available financial instruments for energy efficiency renovations in buildings.</i>		

Article 2a – paragraph 3 a (new) AM 48

3a. The Commission shall make recommendations for Member States based on the collection and dissemination of best practices on successful public and private financing schemes for energy efficiency renovations as well as information on schemes for the aggregation of small-scale energy efficiency renovation projects. The Commission shall furthermore provide Member States with recommendations on financial incentives to renovate from a consumer perspective taking into account cost-efficiency differences between Member States;

Article 2a – paragraph 3 b(new) AM 49

3b. Each Member State shall carry out a public consultation including all relevant stakeholders, for a duration of at least three months on the draft long-term renovation strategy prior to the submission of its long-term renovation strategy to the Commission. Each Member State shall publish a summary of the results of its public consultation as an annex to its long-term renovation strategy.

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.’;

Article 2a – paragraph 3 c (new) - AM 50

3c. Each Member State shall include details of the implementation of its long-term renovation strategy, including on the planned policies and actions, in accordance with the reporting obligations [Article 19 (a)] of Regulation ... of the European Parliament and of the Council of ... [on the Governance of the Energy Union (2016/0375(COD) (the Governance Regulation)), as a part of its integrated national energy and climate progress report.

<p align="center"><u>'Article 6</u></p> <p align="center"><u>New buildings</u></p>			
Article 6 – paragraph 1 – subparagraph 2 - AM 51			
(3) Article 6 is amended as follows:		(3) Article 6 is [] <u>replaced by the following:</u>	
(a) in paragraph 1, the second subparagraph is deleted;	<p>(a) in paragraph 1, the second subparagraph is <i>replaced by the following:</i></p> <p><i>“For new buildings, Member States shall ensure that, before construction starts, the technical, environmental and economic feasibility of high-efficiency alternative systems, if available, is taken into account.”</i></p>	<p><u>Member States shall take the necessary measures to ensure that new buildings meet the minimum energy performance requirements set in accordance with Article 4.'</u></p>	
(b) paragraphs 2 and 3 are deleted;		[]	

Article 7 – paragraph 5 AM 52			
(4) in Article 7, the fifth subparagraph is deleted;	(4) in Article 7, the fifth paragraph is <i>replaced by the following:</i> <i>“Member States shall ensure, in relation to buildings undergoing major renovation, the taking into account of high-efficiency alternative systems, in so far as this is technically, functionally and economically feasible, as well as that due attention is paid to fire safety and the encouragement of a healthy indoor climate conditions.”</i>	(4) in Article 7, the fifth [] <u>paragraph</u> is deleted;	
(5) Article 8 is amended as follows:		(5) Article 8 is amended as follows:	
(a) in paragraph 1, the third subparagraph is deleted;		(a) in paragraph 1, the third subparagraph is deleted;	

Article 8 – paragraph 1 – subparagraph 3 AM 53			
(a) in paragraph 1, the third subparagraph is <i>deleted</i> ;	(a) in paragraph 1, the third subparagraph is <i>replaced by the following:</i> <i>“Member States shall require new buildings to be equipped with self-regulating devices that regulate room temperature levels in each individual room. In existing buildings, the installation of self-regulating devices to individually regulate the room temperature shall be required when heat generators are replaced.”</i>		
Article 8 – paragraph 2- AM 54			
(b) paragraph 2 is replaced by the following:		(b) paragraph 2 is replaced by the following:	

<p>‘2. Member States shall ensure that in all new non-residential buildings and in all existing non-residential buildings undergoing major renovation with more than ten parking spaces, at least one of every ten is equipped with a recharging point within the meaning of Directive 2014/94/EU on the deployment of alternative fuels infrastructure, which is capable of starting and stopping charging in reaction to price signals. This requirement shall apply to all non-residential buildings, with more than ten parking spaces, as of 1 January 2025.</p>	<p>2. Member States shall <i>require</i> that in all new non-residential buildings and in all existing non-residential buildings <i>with more than ten parking spaces</i> undergoing major renovation <i>encompassing the electrical infrastructure of the building or the parking lot, at least one parking space is equipped with a recharging point and that</i> one of every ten parking spaces is equipped with <i>adequate pre-cabling or pre-tubing, in order to enable installation of</i> a recharging point within the meaning of Directive 2014/94/EU <i>of the European Parliament and the Council.</i></p>	<p>‘2. [] <u>With regard to</u> new non-residential buildings and [] non-residential buildings undergoing major renovation[] <u>, provided that the building has</u> more than ten parking spaces[] <u>and the building and the parking spaces are owned by the same entity, Member States shall ensure that at least one</u> recharging point within the meaning of Directive 2014/94/EU on the deployment of alternative fuels infrastructure¹⁰ <u>is installed</u>, which is capable of starting and stopping charging in reaction to price signals[], <u>together with ducting infrastructure, that is, 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 in the following situations:</u></p>	
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¹⁰ OJ L 307, 28.10.2014, p. 1

		<p>a) <u>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</u></p>	
		<p>b) <u>the car park is physically adjacent to the building and, for major renovations, the renovation measures include the car park.</u></p>	
		<p><u>The Commission shall report to the European Parliament and the Council by 1 January 2023 on the scope for a European building policy in contributing to the promotion of electromobility and propose measures if appropriate.</u></p>	

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	2a. Member States shall require installation of a minimum number of recharging points to all public and commercial non-residential buildings, with more than ten parking spaces, by 1 January 2025.		
	2b. Member States shall apply the provisions of paragraph 2 to mixed-use buildings with more than ten parking spaces provided they are new or undergoing major renovation encompassing the electrical infrastructure of the building or the parking lot.		
Member States may decide not to set or apply the requirements referred to in the previous 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.	2c. Member States may decide not to set or apply the requirements referred to in paragraph 2 to buildings owned and occupied by small and medium-sized enterprises as defined in Title I of Annex to Commission Recommendation 2003/361/EC of 6 May 2003.	Member States may decide not to set or apply the requirements referred to in [] this paragraph 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.	

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Article 8 – paragraph 3- AM 55

<p>3. Member States shall ensure that newly built residential buildings and those undergoing major renovations, with more than ten parking spaces, include the pre-cabling to enable the installation of recharging points for electric vehicles for every parking space.</p>	<p>3. Member States shall ensure that <i>new</i> residential buildings and those undergoing major renovations <i>encompassing the electrical infrastructure of the building or the adjacent or built-in parking lot</i>, with more than ten parking spaces, include the <i>adequate</i> pre-cabling <i>or pre-tubing</i> to enable the installation of recharging points for electric vehicles for every parking space.</p>	<p>3. [] <u>With regard to new</u> residential buildings and [] <u>residential buildings</u> undergoing major renovations, [] <u>provided that the building has</u> more than ten parking spaces, [] <u>Member States shall ensure that ducting infrastructure, that is, conduits for electric cables, is installed, in order to enable at a later stage</u> the installation of recharging points for electric vehicles for every parking space <u>in the following situations:</u></p>	
		<p><u>a) 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</u></p>	

		<u>b) the car park is physically adjacent to the building and, for major renovations, the renovation measures include the car park.</u>	
		<u>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.</u>	

Article 8 – paragraph 4 AM 56			
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.’;	4. Member States may decide not to set or apply the requirements referred to in paragraphs 2 and 3 to public buildings <i>provided that they are already covered by requirements comparable with measures transposing</i> Directive 2014/94/EU.	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 <u>and to buildings located in micro isolated 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.</u>	
Article 8 – paragraph 4 a (new) AM 57			
	<i>4 a. Member States shall ensure that public parking lots operated by private entities are subject to the requirements referred to in paragraphs 2 and 3.</i>		

		<u>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.</u>	
Article 8 – paragraph 4 b (new) - AM 58			
	<i>4 b. Member States shall tackle regulatory barriers and shall ensure that there are simplified permitting and approval procedures for owners and tenants in order to enable the deployment of recharging points in existing residential and non-residential buildings.</i>	<u>3b. Member States shall provide for measures in order to simplify 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.</u>	

Article 8 – paragraph 4 c (new) - AM 59			
	<p><i>4c. Further to the requirements for electro-mobility infrastructure, Member States shall take into consideration the need for alternative fuels infrastructure in buildings and the deployment of dedicated infrastructures, such as by electro-mobility corridors, as well as the need for coherent policies for soft and green mobility, multi-modality and urban planning.</i></p>		
Article 8 – paragraph 5 AM 60			
(c) the following paragraphs 5 and 6 are added:		(c) the following paragraphs[] are added:	
<p>‘5. Member States shall ensure that, when a technical building system is installed, replaced or upgraded, the overall energy performance of the complete altered system is assessed, documented it and passed on to the building owner, so that it remains available for the verification of compliance with the minimum requirements set pursuant to paragraph 1 and the issue of energy performance certificates. Member States shall ensure that this information is included in the national energy performance</p>	<p>5. Member States shall ensure that, when a technical building system is installed, replaced or upgraded, the overall energy performance of the complete altered system is assessed, <i>at full load and at part load, and, where relevant, the impact on indoor air quality is also assessed. The results shall be</i> documented it and passed on to the building owner, so that it remains available for the verification of compliance with the minimum requirements set pursuant to</p>	<p>‘5. Member States shall ensure that, when a technical building system <u>for space heating, air conditioning or water heating</u> is installed, replaced or upgraded, [] <u>unless this does not have an impact on its</u> energy performance, <u>the new performance</u> of the [] <u>system or of the</u> altered [] <u>part</u> is[] documented [] and passed on to the building owner, so that it remains available <u>and can be used</u> for the verification of compliance with the minimum requirements set pursuant to paragraph 1 and the issue of energy performance certificates. <u>Without prejudice to Article 12,</u> Member States</p>	

certificate database referred to in Article 18(3).	paragraph 1 and the issue of energy performance certificates. Member States shall ensure that this information is included in the national energy performance certificate database referred to in Article 18(3).	shall [] <u>decide whether to require the issue of a new</u> energy performance certificate[] .	

Article 8 – paragraph 6 – subparagraph 1- AM 61

<p>6. The Commission is empowered to adopt delegated acts in accordance with Article 23 supplementing this Directive with a definition of ‘smartness indicator’ and with the conditions under which the ‘smartness indicator’ would be provided as additional information to prospective new tenants or buyers.</p>	<p>The Commission is empowered to adopt delegated acts in accordance with Article 23 <i>in order to supplement</i> this Directive <i>by establishing</i> a definition of a ‘smartness indicator’, <i>after consulting relevant stakeholders, and on the basis of the outlined design and methodology set out in Annex Ia. The definition shall include information on how the indicator could be introduced following a test-phase, how the indicator would be connected to the energy performance certificates referred to in Article 11 and how it could be provided as additional and meaningful</i> information to prospective new <i>investors</i>, tenants, buyers and <i>market participants</i>.</p>	<p><u>6. The Commission shall, by 31 December 2019, in consultation with the relevant sectors, adopt an implementing measure on a voluntary common European Union scheme for rating the smart readiness of buildings. The scheme will:</u></p>	
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Article 8 – paragraph 6 – subparagraph 2 - AM 62

<p>The smartness indicator shall cover flexibility features, enhanced functionalities and capabilities resulting from more interconnected and built-in intelligent devices being integrated into the conventional technical building systems. The features shall enhance the ability of occupants and the building itself to react to comfort or operational requirements, take part in demand response and contribute to the optimum, smooth and safe operation of the various energy systems and district infrastructures to which the building is connected.’;</p>	<p>The smartness indicator shall cover <i>enhanced energy savings, benchmarking and</i> flexibility features, enhanced functionalities and capabilities resulting from more interconnected and built-in intelligent devices being integrated into the conventional technical building systems. The features shall enhance the ability of occupants and the building itself to react to comfort or operational requirements, <i>in particular at part load, including by adapting the energy consumption, to</i> take part in demand response and <i>to</i> contribute to the optimum, <i>efficient,</i> smooth and safe operation of the various energy systems <i>including renewable energy generated on-site,</i> and district infrastructures to which the building is connected.</p>	<p><u>a) include the definition of a smart readiness indicator,</u></p> <p><u>b) establish a methodology to calculate it and</u></p> <p><u>c) provide technical input on the modalities for its effective implementation at national level, in line with Annex Ia.</u></p>	
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		<u>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. '</u>	
Article 10 – paragraph 6- AM 63			
(6) Article 10 is amended as follows:		(6) Article 10 is amended as follows:	
(a) paragraph 6 is replaced by the following:		(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 to the energy savings achieved due to such renovation. These savings shall be determined by comparing energy performance certificates issued before and after renovation.’;	6. Member States shall link their financial measures for energy efficiency improvements in the renovation of buildings to the energy savings achieved due to such renovation. These savings shall, <i>where proportionate to the extent of the renovation</i> , be determined by <i>an energy audit or by</i> comparing energy performance certificates issued before and after renovation, <i>or by using standard values for calculation of energy savings in buildings or similar relevant, transparent methodology for documentation.</i>	‘6. Member States shall link their financial measures for energy efficiency improvements in the renovation of buildings[]: <u>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;</u>	

		<p><u>b) to the improvement</u> achieved due to such renovation[] by comparing energy performance certificates issued before and after renovation; <u>or</u></p> <p><u>c) to the results of another relevant, transparent and proportionate method that indicates the improvement in energy performance.';</u></p>	
Article 10 – paragraph 6a- AM 64			
(b) the following paragraphs 6a and, 6b are inserted:		(b) the following [] paragraph is inserted:	

<p>‘6a. When Member States put in place a database for registering EPCs it shall allow tracking the actual energy consumption of the buildings covered, regardless of their size and category. The database shall contain the actual energy consumption data of buildings frequently visited by the public with useful floor area of over 250 m² which shall be regularly updated.</p>	<p>6a. When Member States put in place a database <i>or use an existing database</i> for registering EPCs it shall allow tracking the energy consumption of the buildings covered, regardless of their size and category. The database shall contain the energy consumption data of <i>buildings owned, managed or occupied by public authorities</i> with useful floor area of over 250 m² which shall be regularly updated.</p>	<p>‘6a. [] <u>If a Member [] State puts</u> in place a database for [] <u>EPCs, aggregated</u> anonymised data compliant with [] <u>Union and national</u> data protection requirements shall be made available on request[] for statistical and research purposes, <u>at least to the public authorities.</u>’;</p>	
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Article 10 – paragraph 6b AM 65			
6b. Aggregated anonymised data compliant with EU data protection requirements shall be made available on request, at least for the public authorities for statistical and research purposes.’;	6 b. Aggregated anonymised data compliant with EU data protection requirements shall be made available on request, at least for the public authorities for statistical and research purposes <i>and the full dataset shall be available for the building owner.</i> ’;		
(7) Article 14 is amended as follows:		(7) Article 14 is [] replaced by the following:	
<p style="text-align: center;"><u>"Article 14</u></p> <p style="text-align: center;"><u>Inspection of heating systems</u></p>			
Article 14 – paragraph 1- AM 66			
(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 used for heating buildings, such as the heat generator, control system and circulation pump(s) for non-residential buildings with total primary energy use of over 250MWh and for residential buildings with a centralised technical building system of a cumulated	1. Member States shall lay down the necessary measures to establish a regular inspection of the accessible parts of systems used for heating buildings, such as the heat generator, control system and circulation pump(s) for non-residential buildings with total primary energy use of over 250MWh and for residential buildings with a technical building system <i>for space and domestic water</i>	[] 1. Member States shall lay down the necessary measures to establish[] regular inspection of the accessible parts of systems [] <u>with an effective rated output</u> for <u>space</u> heating [] <u>purposes of over 70 kW</u> , such as the heat generator, control system and circulation pump(s) [] <u>used for heating buildings. The</u> inspection shall include an assessment of the [] <u>heat generator</u> efficiency and the [] <u>heat generator</u> sizing compared with	

effective rated output of over 100 kW. That inspection shall include an assessment of the boiler efficiency and the boiler sizing compared with the heating requirements of the building. The assessment of the boiler 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.’;	<i>heating purposes</i> of a cumulated effective rated output of over 70 kW. That inspection shall include an assessment of the <i>heat generator</i> efficiency, <i>at full load and at part load</i> , and the <i>heat generator</i> sizing compared with the heating requirements of the building. The assessment of the <i>heat generator</i> 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;	the heating requirements of the building. [] <u>Where</u> no changes [] <u>have been</u> made to the heating system or as regards the heating requirements of the building [] <u>since an inspection pursuant to this paragraph was carried out, Member States may choose not to require the assessment of the heat generator sizing to be repeated.</u>	
(b) paragraphs 2, 3, 4 and 5 are deleted and replaced by the following:	(b) paragraphs 2, 3, 4 and 5 are deleted and replaced by the following:	[]	

		<p><u>'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 such an approach shall be equivalent to the impact arising from the measures taken pursuant to paragraph 1.</u></p>	
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Article 14 – paragraph 2 – introductory part - AM 67

‘2. As an alternative to paragraph 1 Member States may set requirements to ensure that non-residential buildings with total primary energy use of over 250 MWh per year are equipped with building automation and control systems. These systems shall be capable of:

2. Member States *shall require* that non-residential buildings with total primary energy use of over 250 MWh per year are equipped with building automation and control systems *by 2023*. These systems shall be capable of:

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

Article 14 – paragraph 2 – point a - AM 68			
(a) continuously monitoring, analysing and adjusting energy usage;	(a) continuously monitoring, logging , analysing and adjusting energy usage <i>to enable optimal energy performance at full load and at part load</i> ;	(a) continuously monitoring, analysing and allowing for adjusting energy usage;	
Article 14 – paragraph 2 – point b) and c)			
(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;	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;	(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; and	

(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.	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.	(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.	
Article 14 – paragraph 3 – introductory part- AM 69			
3. As an alternative to paragraph 1 Member States may set requirements to ensure that residential buildings with centralised technical building systems of a cumulated effective rated output of over 100 kW are equipped:	3. Member States may <i>require</i> that residential buildings with technical building systems of a cumulated effective rated output <i>for space and domestic water heating purposes</i> of over 70 kW are equipped:	3. As an alternative to paragraph 1 <u>for residential buildings</u> , Member States may set requirements to ensure that residential buildings [] are equipped <u>with</u> :	

Article 14 – paragraph 3 – point a AM 70			
(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	(a) with continuous electronic monitoring functionality that measures systems' efficiency and inform building owners or managers when it has fallen significantly and when system servicing is necessary, and	(a) <input type="checkbox"/> 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	
Article 14 – paragraph 3 – point b- AM 71			
(b) with effective control functionalities to ensure optimum generation, distribution and use of energy.';	(b) with effective control functionalities to ensure optimum generation, distribution, storage and use of energy at full load and at part load including hydronic balancing .';	(b) <input type="checkbox"/> effective control functionalities to ensure optimum generation, distribution and use of energy.';	
Article 14 – paragraph 3 a (new)- AM 72			
	3a. Buildings that comply with paragraph 2 or 3 shall be exempt from the requirements laid down in paragraph 1.		

Article 14 – paragraph 3 b (new) - AM 73			
	<p>3b. Technical building systems explicitly covered by an agreed energy performance criterion or a contractual arrangement specifying an agreed level of energy efficiency improvement, such as energy performance contracting as defined in point (27) of Article 2 of Directive 2012/27/EU or that are operated by a utility or network operator and therefore subject to performance monitoring measures on the system side, shall be exempt from the requirements laid down in paragraph 1.</p>		
		(8) Article 15 is [] <u>replaced by the following:</u>	
Article 15 – paragraph 1- AM 74			
(a) paragraph 1 is replaced by the following:	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 for	1. Member States shall lay down the necessary measures to establish a regular inspection of the accessible parts of air-conditioning and	‘1. Member States shall lay down the necessary measures to establish a regular inspection of the accessible parts of air-conditioning systems[] <u>with an</u> effective	

<p>non-residential buildings with total primary energy use of over 250MWh and for residential buildings with a centralised technical building system of a cumulated effective rated output of over 100 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.’;</p>	<p>ventilation systems for non-residential buildings with total primary energy use of over 250MWh and for residential buildings with a technical building system for air-conditioning and ventilation of a cumulated effective rated output of over 12kW. The inspection shall include an assessment of the air-conditioning and ventilation efficiency, at full load and at part load, 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 or ventilation system or as regards the cooling requirements of the building in the meantime.</p> <p><i>Member States may set different inspection frequencies depending on the type and effective rated output of air-conditioning systems, whilst taking into account the costs of the inspection of the systems and the estimated energy cost savings that</i></p>	<p>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. [] <u>Where</u> no changes [] <u>have been</u> made to this <u>the</u> air-conditioning system or as regards the cooling requirements of the building [] <u>since an inspection pursuant to this paragraph was carried out, Member States may choose not to require the assessment of the sizing to be repeated.</u></p>	
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	<i>may result from the inspection.</i>		
(b) paragraphs 2, 3, 4 and 5 are deleted and replaced by the following:	(b) paragraphs 2, 3, 4 and 5 are deleted and replaced by the following:	[]	

		<p><u>Member States that maintain more stringent requirements pursuant to Article 1(3) shall be exempted from the obligation to notify them to the Commission.</u></p>	
		<p><u>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 such an approach shall be equivalent to that arising from the provisions set out in paragraph 1.</u></p>	

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Article 15 – paragraph 2 – introductory part- AM 75

‘2. As an alternative to paragraph 1 Member States may set requirements to ensure that non-residential buildings with total primary energy use of over 250 MWh per year are equipped with building automation and control systems. These systems shall be capable of:

2. Member States ***shall require*** that non-residential buildings with total primary energy use of over 250 MWh per year are equipped with building automation and control systems ***by 2023***. These systems shall be capable of:

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

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Article 15 – paragraph 2 – point a - AM 76			
(a) continuously monitoring, analysing and adjusting energy usage;	(a) continuously monitoring, analysing, logging and adjusting energy usage <i>to enable optimal energy performance at full load and at part load</i> ;	(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;	(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;	(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; and	

(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.	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	(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.	
Article 15 – paragraph 3- AM 77			
3. As an alternative to paragraph 1 Member States may set requirements to ensure that residential buildings with centralised technical building systems of a cumulated effective rated output of over 100 kW	3. Member States may require that residential buildings with technical building systems of a cumulated effective rated output for air-conditioning or ventilation of over 12 kW are equipped:	3. As an alternative to paragraph 1 for residential buildings , Member States may set requirements to ensure that residential buildings [] are equipped with:	
(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	(a) with continuous electronic monitoring functionality that measures systems' efficiency and inform building owners or managers when it has fallen significantly and when system servicing is necessary, and	[] 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.';	(b) with effective control functionalities to ensure optimum generation, distribution, storage and use of energy at full and at part load including hydronic balancing .	(b) [] effective control functionalities to ensure optimum generation, distribution and use of energy.';	
Article 15 – paragraph 3 a (new) AM 78			
	3a. Buildings that comply with paragraph 2 or 3 shall be exempt from the requirements laid down in paragraph 1.		
Article 15 – paragraph 3 b (new) AM 79			
	3b. Technical building systems explicitly covered by an agreed energy performance criterion or a contractual arrangement specifying an agreed level of energy efficiency improvement, such as energy performance contracting as defined in point (27) of Article 2 of Directive 2012/27/EU, or that are operated by a utility or network operator and are therefore subject to performance monitoring measures on the system side, shall be exempt from the requirements laid down in paragraph 1.		

Art 19 rev.para. 1- AM 80			
(9) in Article 19, '2017' is replaced by '2028';	(9) in Article 19, '2017' is replaced by ' 2024 ';	(9) in Article 19, '2017' is replaced by '2028' <u>and the following sentence is added:</u>	
Article 19 – paragraph 1 a (new) - AM 81			
		<u>'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'.</u>	

	<p><i>(9 a) in Article 19, the following paragraph is added:</i></p> <p><i>'The Commission shall, in particular, assess the need for further harmonisation of energy performance certificates in accordance with Article 11.'</i></p>		
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Article 19 a (new) - AM 82			
	<p>9b. The following article is inserted:</p> <p>“Article 19a</p> <p><i>The Commission shall, before 2020, conclude a feasibility study, clarifying the possibilities and timeline to introduce a building renovation passport, potentially as part of the recommendations section of the energy performance certificates, in order to provide a long-term, step-by-step renovation roadmap for a specific building.</i>”</p>		

(10) in Article 20(2), the first subparagraph is replaced by the following:		(10) in Article 20(2), the first subparagraph is replaced by the following:	
Article 20 – paragraph 2 –subparagraph 1 - AM 83			
(a) ‘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.’;	Member States shall in particular provide information <i>through independent, accessible and transparent advisory tools such as one-stop-shops</i> to the owners, <i>managers and</i> tenants of buildings on cost-effective <i>measures</i> to improve the energy performance of the building, <i>including through renovation advice, on energy performance certificates, their purpose and objectives, on replacing fossil fuel boilers with more sustainable alternatives</i> and on financial instruments available to improve the energy performance of the building.	(a) ‘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:		(11) Article 23 is replaced by the following:	

‘Article 23			
Exercise of the delegation			
Art 23- CA 27			
1. The power to adopt delegated acts referred to in Articles 5, 8 and 22 is conferred on the Commission subject to the conditions laid down in this Article.	<p><i>(No change to the Commission proposal is suggested delegation in line with inter-institutional agreement)</i></p> <p>1. The power to adopt delegated acts referred to in Articles 5, 8 and 22 is conferred on the Commission subject to the conditions laid down in this Article.</p>	1. The power to adopt delegated acts[] 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, 8 and 22 shall be conferred on the Commission for an indeterminate period of time from [date of the entry into force...].	2. The power to adopt delegated acts referred to in Article 5, 8 and 22 shall be conferred on the Commission for an indeterminate period of time from [date of the entry into force...].	2. The power to adopt delegated acts referred to in [] Articles 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]. <u>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.</u>	

<p>3. The delegation of power referred to in Articles 5, 8 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.</p>	<p>3. The delegation of power referred to in Articles 5, 8 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.</p>	<p>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.</p>	
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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.	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.	4. Before [] <u>adopting</u> 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 [] <u>2016</u> ¹² .	
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.		5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.	

¹² OJ L 123, 12.5.2016, p. 1

6. A delegated act adopted pursuant to Articles 5, 8 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.’;		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 <u>of</u> the Council.’;	
(12) Articles 24 and 25 are deleted;		(12) Articles 24 and 25 are deleted;	
		<u>(12a) Article 26 is replaced by the following:</u>	

<u>'Article 26</u>			
<u>Committee procedure</u>			
		<u>1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.</u>	
		<u>2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.'</u>	
(13) The Annexes are amended in accordance with the Annex to this Directive.		(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 are deleted.		With the exception of its last subparagraph, the provisions of Article 4 of the Directive 2012/27/EU on energy efficiency ^{11 13} are deleted.	

¹³ OJ L 315, 14.11.2012, p. 13

Article 3 ²			
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 12 months following the date of entry into force] at the latest. They shall immediately communicate to the Commission the text of those provisions.		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 <u>measures to the Commission.</u>	

² **Adaptations to this Article reflect the standard wording agreed between the legal services of the Commission, European Parliament and the Council.**

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.		When Member State adopt those provisions <u>measures</u> , they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. <u>They shall also include a statement that references in existing laws, regulations and administrative provisions to the Directive(s) repealed by this Directive shall be construed as references to this Directive.</u> Member States shall determine how such reference is to be made <u>and how that statement is to be formulated.</u>	
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.		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 <i>Official Journal of the European Union</i> .		This Directive shall enter into force on the twentieth day following that of its publication in the <i>Official Journal of the European Union</i> .	
Article 5			
This Directive is addressed to the Member States.		This Directive is addressed to the Member States.	
Done at Brussels, <i>For the European Parliament</i> The President <i>For the Council</i> The President		Done at Brussels, <i>For the European Parliament</i> The President <i>For the Council</i> The President	

ANNEX			
Annexes to this directive are amended as follows:		Annexes to <input type="checkbox"/> Directive 2010/31/EU are modified as follows:	
Annex I – point 1 - AM 84			
1. Annex I is amended as follows:	1. Annex I is amended as follows:	1. Annex I is amended as follows:	
(a) point 1 is replaced by the following:	(a) point 1 is replaced by the following:	(a) point 1 is replaced by the following:	
‘1. The energy performance of a building shall reflect its typical energy use for heating, cooling, domestic hot water, ventilation and lighting.	‘1. The energy performance of a building shall <i>transparently</i> reflect its typical energy use for heating, cooling, domestic hot water, ventilation, lighting <i>and other technical building systems</i> .	1. The energy performance of a building <u>shall be determined on the basis of the calculated or actual energy use and</u> shall reflect its typical energy use for heating, cooling domestic hot water, ventilation and <u>built-in</u> lighting (<u>mainly in the non- residential sector</u>).	
The energy performance of a building shall be expressed by a numeric indicator of primary energy use in kWh/(m².y), harmonised for the purpose of both energy performance certification and compliance with minimum energy performance requirements. The energy performance and the methodology applied for its determination shall be transparent and open to innovation	The energy performance of a building shall be expressed by a numeric indicator of primary energy use in kWh/(m².y), harmonised 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.	The energy performance of a building shall be expressed by a numeric indicator of primary energy use in kWh/(m².y), <input type="checkbox"/> for the purpose of both energy performance certification and compliance with minimum energy performance requirements. The <input type="checkbox"/> methodology applied for its determination shall be transparent and open to innovation.	
Member States shall describe their national calculation methodology	Member States shall describe their national calculation methodology,	Member States shall describe their national calculation methodology	

following the national annex framework of related European standards developed under mandate M/480 given by the European Commission to the European Committee for Standardisation (CEN).’;	<i>taking into account the terminology and definitions contained in the</i> national annex framework of related European standards developed under mandate M/480 given by the European Commission to the European Committee for Standardisation (CEN).;	following the national [] <u>annexes of the overarching</u> standards ¹⁵ developed under mandate M/480 given by the European Commission to the European Committee for Standardisation (CEN).[] <u>This provision shall not constitute a requirement to comply with those</u>	
		<u>standards. The description of national calculation methods shall be voluntary in the national annexes of the other standards¹⁶.</u>	

¹⁵ **ISO/EN 52000-1, 52003-1, 52010-1, 52016-1, and 52018-1.**

¹⁶ **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.**

Annex I- point 2 par 1 (b)			
(b) point 2 is replaced by the following:	point 2 is replaced by the following:	(b) 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.	‘2. The energy needs for space heating, space cooling, domestic hot water, lighting , ventilation and other technical building systems shall be calculated in order to maximise health, indoor air quality and comfort levels defined by Member States at national or regional level. In particular, the temperature on any inner surface of the building should not drop below dew point temperature.	‘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.	
1	The calculation of primary energy shall be based on primary energy factors per energy carrier, which may be based on national or regional annual, and possibly also seasonal or monthly , weighted averages or on more specific information made available for individual district system.	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 shall discount the share of renewable energy in energy carriers so that calculations equally treat: (a) the energy from renewable source that is generated on-site (behind the individual meter, i.e. not accounted as supplied), and (b) the energy from renewable energy sources supplied through the energy carrier.’;	<i>The calculations by Member States shall first consider the energy needs and subsequently equally take into account: (a) the energy from renewable sources that is generated and used on-site (behind the individual meter, i.e. not accounted as supplied), and (b) the energy from renewable energy sources supplied through the energy carrier.</i>	Primary energy factors [] <u>or weighting factors shall be defined by Member States. Primary energy factors shall take into account renewable energy with regard to the energy</u> supplied through the energy carrier.[]	
		<u>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 CO₂ equivalent per m² per year.’;</u>	
	<i>The application of primary energy factors shall ensure that the optimal energy performance of the building is pursued, thereby supporting the national implementation of the requirements of Article 9.’</i>		
(c) in point 4, the introductory phrase is replaced by the following:		(c) in point 4, the introductory phrase is replaced by the following:	

‘4. The positive influence of the following aspects shall be taken into account.’;		‘4. The positive influence of the following aspects shall be taken into account.’;	
2. Annex II is amended as follows:		2. Annex II is amended as follows:	
(a) first paragraph of point 1 is replaced by the following:		(a) 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.’;		‘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.’;	
(b) point 3 is added:		(b) 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. 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.’;	

'Annex Ia (new) - AM 86			
	<i>1 a. The following annex is inserted:</i>	<u>1a. The following Annex Ia is added:</u>	
	'ANNEX Ia <i>Common general framework methodology for the definition of a 'smartness indicator' for buildings as referred to in Article 8(6)</i>	<u>Common general framework for rating the smart readiness of buildings</u>	
	<i>1. The Commission shall lay down a common general framework methodology to determine the smartness indicator value, rating the ability of a building or building unit to adapt its operation to the needs of the occupant and the grid and to improve its energy efficiency and overall performance.</i>	<u>1. The smart readiness indicator, that is, 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 building owners and tenants.</u>	

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	<p><i>The methodology shall take into account a number of features including smart meters, building automation and control systems, smart thermostats, built-in home appliances, recharging points for electric vehicles, energy storage and detailed functionalities and the interoperability of these features. Those impacts shall be assessed for potential benefits for the energy efficiency and performance levels, as well as the enabled flexibility, indoor climate conditions and comfort of the relevant building or building unit.</i></p>	<p><u>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. The methodology shall ensure technology and supplier neutrality and shall take into account European standards, in particular on interoperability, and comply with Union and national privacy and data protection rules.</u></p>	
	<p><i>2. The smartness indicator shall be determined and calculated in accordance with three key functionalities relating to the building and its technical building systems:</i></p>		

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	<i>(a) the ability to maintain, efficiently, high building performance and operation through the reduction of energy demand and a greater use of energy from renewable sources (electricity and heat), including the ability of the building to manage its own demand or on-site generation by re-managing its own resources;</i>		
	<i>(b) the ability to adapt its operation mode in response to the needs of the occupant ensuring high standards of indoor health and climate conditions, paying due attention to the availability of user-friendly displays and remote controllability and reporting of indoor air quality and energy use; and</i>		

	<p><i>(c) the flexibility of a building's overall electricity demand, including its ability to enable participation in active and passive as well as implicit and explicit demand-response, which shall be measured in terms of how much of the building's load can be shifted at any one time in terms of kW peak, and the capacity in terms of kWh of how much of that flexibility can then be delivered to the grid, including offtake and injection.</i></p>		
	<p><i>This would enable and support the active participation of consumers in the electricity supply market in accordance with Directive 2009/72/EC of the European Parliament and of the Council*.</i></p> <p><i>The framework methodology shall take into account European standards, in particular those developed under mandate M/480.</i></p>		

	<p><i>3. The framework methodology shall ensure full interoperability between smart meters, building automation and control systems, built-in home appliances, smart thermostats within the building and indoor air quality sensors and ventilations, and promote the use of benchmarking and European standards including the Smart Appliances Reference ontology. The smartness indicator shall consider and set a value on openness to third-party systems, for infrastructure such as the electricity grid and district heating network, electric vehicle infrastructure and demand-response aggregators, with a view to ensuring compatibility in communications, systems control and relevant data or signals transmission.</i></p>	<p><u>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.'</u></p>	
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	<p><i>4. The framework methodology shall include the data handling process within a building or beyond a building's boundaries, which could include data originating in or received by the building itself or the user or occupant. This process shall be based on protocols that allow authenticated and encrypted message exchanges between the occupant and the relevant products or devices within the building. In particular when processing personal data, such as data coming from frequent and remote metering or sub-metering or processed by smart-grid operators, the principles of occupant ownership, data protection, privacy and security shall be ensured. This common methodology framework shall cover real time data and energy-related data coming out of cloud based solutions and shall ensure the security of data, smart meter readings and data communications, and the privacy of final customers, in compliance with relevant Union data protection and privacy law as well as best available techniques for cyber security.</i></p>		
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	<p>5. The framework methodology shall take into account the positive influence of existing communication networks, in particular the existence of high-speed-ready in-building physical infrastructure, such as the voluntary 'broadband ready' label, and the existence of an access point for multi-dwelling buildings, in accordance with Article 8 of Directive 2014/61/EU of the European Parliament and of the Council**.</p>		
	<p>6. The framework methodology shall set out the most appropriate format or visual representation of the smartness indicator parameter and shall be simple, transparent, and easily understandable for consumers, owners, investors, and demand response market participants. It shall complement the energy performance certificate insofar as there is an established link to the energy performance of the building.</p>		

	<p><i>* Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity (OJ L 211, 14.8.2009, p. 55).</i></p> <p><i>** Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 concerning measures to reduce the cost of deploying high-speed electronic communication networks (OJ L 155, 23.5.2014, p. 1).’</i></p>		
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