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

The Delegations will find below drafting suggestions for a revised version of compromise proposals (as presented in the Annex to document 14707/17 INIT and its COR) on the following political issues: 1) long-term renovation strategy; 2) electro-mobility; 3) energy performances' databases; 4) Smart Readiness Indicator (along with delegated/implementing acts); and 5) inspections and their alternatives. Please note that these suggestions reflect EP's requests at the second informal trilogue.

1) Long-term renovation strategy, Article 2a, para. 1, 2, 3b, 3c and 4 (<u>AMs 43-46, 49 and 50</u>)

1. Member States shall establish a long-term strategy to support the transformation of the national stock of residential and non-residential buildings, both public and private, into a highly energy efficient and decarbonised building stock by 2050, targeting performance at nearly-zero energy building level. This strategy shall encompass:

(a) an overview of the national building stock based, as appropriate, on statistical sampling and expected share of refurbished buildings in 2020;

(b) identification of cost-effective approaches to renovations relevant to the building type and climatic zone, considering, potential relevant trigger points[1] in the life cycle of the building;

(c) policies and actions to stimulate cost-effective deep renovations of buildings, including staged deep renovations, and to support targeted cost-efficient measures and renovations for example by introducing an optional scheme for building renovation passports;

(d) policies and actions to target the worst performing segments of the national building stock and to tackling market failures such as split-incentive dilemmas and multi-family dwellings;

(e) policies and actions to target all public buildings, including social housing;

(f) an outline of national actions that contribute to the alleviation of energy poverty[2] and that support equal access to financing tools for energy efficiency renovations for vulnerable households;

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1 **<u>No definition</u>** of trigger points but just the following recital: "***In their long-term strategies and in planning actions and measures, Member States should make use of concepts such as trigger points, meaning an opportune moment, for example from a cost-effectiveness or disruption perspective, in the life cycle of a building for carrying out energy efficiency renovations***".

2 On **<u>energy poverty</u>**, a new recital could be added as follows: "***The need to alleviate energy poverty should be taken into account, in accordance with the criteria to be defined by the Member States. Only those Member States that put in place actions to alleviate energy poverty should outline them in their renovation strategy***".

(g) an overview of national initiatives to promote smart technologies and well-connected buildings and communities, as well as skills and education in the construction and energy efficiency sectors; and

(h) an evidence-based estimate of expected energy savings and wider benefits, such as those related to health, safety and air quality.

2. In their long-term renovation strategy, Member States shall set out a roadmap with measurable progress indicators, with a view to the long-term 2050 goal of reducing greenhouse gas emissions in the Union by 80-95 % compared to 1990. The roadmap shall include indicative milestones for 2030 and 2040, and specify how they contribute to achieving the Union's energy efficiency targets in accordance with Directive 2012/27/EU.

3b. The development and implementation of Member States' long-term renovation strategies shall be supported by structured, inclusive stakeholder platforms. Member States shall carry out a public consultation on the draft long-term renovation strategy prior to the submission of its long-term renovation strategy to the Commission in accordance with the applicable reporting obligations [i.e. Governance Regulation]. A summary of the results of the public consultation shall be published as an annex to the national long-term renovation strategy.

3c. Member States shall include details of the implementation of its long-term renovation strategy, including on the planned policies and actions, in accordance with the applicable reporting obligations. [Governance Regulation]

4. Member States may use their long-term renovation strategies to address risks related to intense seismic activities or fire affecting energy efficiency renovations and the lifetime of buildings.';

2) Electro-mobility, Article 8, para. 2, 2a, 2b, 2c, 3, 3a, 4, 4a, 4b and 4c (AMs 54-58)

2. [ ] With regard to new non-residential buildings and [ ] non-residential buildings undergoing major renovation[ ], provided that the building has more than ten parking spaces[ ] and the building and the parking spaces are owned by the same entity, Member States shall ensure the installation of at least one recharging point[3], and ducting infrastructure, to enable the installation at a later stage of recharging points for electric vehicles, for at least one in every **five** in the following situations:

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

b) the car park is physically adjacent to the building and, for major renovations, the renovation measures include the car park or the electrical infrastructure of the car park.

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.

2a. Member States shall require installation of a minimum number of recharging points to all public and commercial non-residential buildings, with more than **twenty** parking spaces, by 1 January 2025.

[2b. will only be addressed in a recital]

2c. 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.

[3] Within the meaning of Directive 2014/94/EU on the deployment of alternative fuels infrastructure is installed

3. With regard to new residential buildings and residential buildings undergoing major renovations, that have more than ten parking spaces, Member States shall ensure that ducting is installed, in order to enable at a later stage the installation of recharging points for electric vehicles for every parking space in the following situations:

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

b) the car park is physically adjacent to the building and, for major renovations, the renovation measures include the car park or the electrical infrastructure of the car park.

3a. Member States may decide not to apply paragraph 2 and paragraph 3 to specific categories of buildings in the following circumstances:

a) where building permit applications or equivalent applications have been submitted before the date referred to in Article 3(1) of this Directive;

b) where the ducting infrastructure required would rely on micro isolated systems or in outermost regions[4] if this would lead to substantial problems for the operation of the local energy system and would endanger the stability of the local grid;

c) where the cost of the recharging and ducting installations exceeds 10% of the total cost of the major renovation of the building;

d) where a public building is already covered by comparable requirements according to the transposition of Directive 2014/94/EU;

[AM 57 to be moved to a recital]

4b. Member States shall provide for measures in order to simplify the deployment of recharging points in new and existing residential and non-residential buildings and address possible regulatory barriers, including with permitting and approval procedures, without prejudice to the property and tenancy law of the Member States.

4c. When implementing the electro-mobility requirements related to buildings, Member States shall take into consideration the need for coherent policies for soft and green mobility, multi-modality, alternative fuels infrastructure and urban planning.

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4 Within the meaning of Article 349 TFEU.

3) Energy performance databases, Article 10, para. 6, 6a and 6b (AMs 63-65)

6. Member States shall link their financial measures for energy efficiency improvements in the renovation of buildings to the energy savings achieved, as determined by one or several criteria below:

(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;

(b) to standard values for calculation of energy savings in buildings;

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

(d) to the results of an energy audit; or

(e) to the results of another relevant, transparent and proportionate method that shows the improvement in energy performance.'

6a. Databases for EPCs shall allow gathering data on the measured or calculated energy consumption of the buildings covered including at least public buildings with a total effective rated heating, cooling or ventilation system output of over 290kW, for which an EPC has been issued.

6b. At least aggregated anonymised data compliant with Union and national data protection requirements shall be made available on request for statistical and research purposes and to the building owner;

4) Smart Readiness Indicator (along with delegated/implementing acts), Article 8, para. 6 and Annex Ia (AMs 61, 62 and 86)

6. The Commission shall, by 31 December 2019 and after having consulted the relevant stakeholders, adopt a delegated act in accordance with article 23 and Annex Ia ~~point (1)~~ supplementing this Directive by establishing **an optional** common European Union scheme for rating the smart readiness of buildings. The rating shall be based on an assessment of the capabilities 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. The scheme shall:

(a) include the definition of a smart readiness indicator; and

(b) establish a methodology to calculate it.

6a. The Commission shall, by 31 December 2019 and after having consulted the relevant stakeholders, adopt an implementing act providing technical input on the modalities for its effective implementation, including a timeline for a non-committal test-phase, at national level, and clarifying the indicator's complementary relation to the energy performance certificates referred to in Article 11.

That act shall be adopted in accordance with the examination procedure referred to in Article 26."

Annex Ia

1. The smart readiness indicator shall provide a methodology to assess the capabilities 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. The indicator shall cover features for enhanced energy savings, benchmarking and flexibility, enhanced functionalities and capabilities resulting from more interconnected and intelligent devices.

The methodology shall take into account features such as smart meters, building automation and control systems, self-regulating devices for indoor temperature, built-in home appliances, recharging points for electric vehicles, energy storage and detailed functionalities and the interoperability of these features, as well as benefits for the indoor climate condition, energy efficiency, performance levels and enabled flexibility.

2. The methodology shall rely on three key functionalities relating to the building and its technical building systems:

(a) the ability to maintain energy efficiency performance and operation of the building through the adaptation of energy consumption for example through use of energy from renewable sources;
(b) the ability to adapt its operation mode in response to the needs of the occupant paying due attention to the availability of user-friendliness, maintaining healthy indoor climate conditions and ability to report on energy use; and
(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, in relation to the grid, for example through flexibility and load shifting capacities.

3. The methodology may further take into account:

- the interoperability between systems (smart meters, building automation and control systems, built-in home appliances, self-regulating devices for indoor temperature within the building and indoor air quality sensors and ventilations) and
- 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.

4. The methodology shall not negatively affect existing national energy performance certification schemes and shall build on related initiatives at national level, while taking into account the principle of occupant ownership, data protection, privacy and security, in compliance with relevant Union data protection and privacy law as well as best available techniques for cyber security.

5. The methodology shall set out the most appropriate format of the smartness indicator parameter and shall be simple, transparent, and easily understandable for consumers, owners, investors, and demand response market participants.

5) Inspections and their alternatives, Articles 14 and 15 (AMs 66-79)

Article 14

1. Member States shall lay down the necessary measures to establish regular inspection of the accessible parts of systems with an effective rated output for space heating purposes of over 70 kW, such as the heat generator, control system and circulation pump(s) used for heating buildings.

The inspection shall include an assessment of the heat generator efficiency and the heat generator sizing compared with the heating requirements of the building. **The assessment of heating efficiency shall consider the capabilities of the heating system to optimize its performance at part load**[5].

Where no changes have been made to the heating system or as regards the heating requirements of the building 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.

1a. 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 heat generators, other modifications to the heating system and alternative solutions to assess the efficiency and appropriate size of the heating system. The overall impact of such an approach shall be equivalent to that arising from the provisions set out in paragraph 1.

[5] Possible definition to add: "***'part load' means a part of the maximal capacity demand of a technical building system. In the scope of the Directive, it particularly refers to typical or average operating conditions***".

Before Member States may apply the measures referred to in the first subparagraph, they shall **submit to the Commission an ex-ante overview of such procedures**, justifying and quantifying the equivalence of the effect of those measures to the measures referred to in paragraphs 1, 2 and 3.

Member States shall submit a report on the effectiveness of such measures to the Commission and the European Parliament every three years. Such reports shall be included in the national climate and energy plans according to applicable reporting obligations [Governance regulation].

2. As an alternative to paragraph 1, Member States shall require that non-residential buildings with a total effective rated heating, cooling or ventilation system output of over 290 kWare equipped with building automation and control systems[6] by 2023. These systems shall be capable of:

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

(b) benchmarking the building's energy efficiency, detecting losses in efficiency of technical building systems, and informing the person responsible for the facilities or technical building management about opportunities for energy efficiency improvement; 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.

[6] Possible definition to add: "***'building automation and control system' means a system comprising all products, software and engineering services that can support energy-efficient, economical and safe operation of technical building system through automatic controls and by facilitating their manual management***".

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

(a) the functionality of 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) effective control functionalities to ensure optimum generation, distribution, storage and use of energy.';

3a. Buildings that comply with paragraph 2 or 3 shall be exempt from the requirements laid down in paragraph 1.

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.

Article 15

1. Member States shall lay down the necessary measures to establish a regular inspection of the accessible parts of air-conditioning and ventilation systems, with an effective rated output of over 70 kW. The inspection shall include an assessment of the air-conditioning and ventilation efficiency and the sizing compared to the cooling requirements of the building.

The assessment of the air-conditioning and ventilation efficiency shall consider the capabilities of the system to optimize its performance at part load.

Where no changes have been made to the air-conditioning or ventilation system or the requirements for cooling of the building 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.

1a. 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.

Before Member States may apply the measures referred to in the first subparagraph, they shall **submit to the Commission an ex-ante overview of such procedures**, justifying and quantifying the equivalence of the effect of those measures to the measures referred to in paragraphs 1, 2 and 3.

Member States shall submit a report on the effectiveness of such measures to the Commission and the European Parliament every three years. Such reports shall be included in the national climate and energy plans according to applicable reporting obligations [Governance regulation].

2. As an alternative to paragraph 1, Member States shall require that non-residential buildings with a total effective rated heating, cooling or ventilation system output of over 290 kW are equipped with building automation and control systems by 2023. These systems shall be capable of:

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

(b) benchmarking the building's energy efficiency, detecting losses in efficiency of technical building systems, and informing the person responsible for the facilities or technical building management about opportunities for energy efficiency improvement; 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.

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

(a) the functionality of 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) effective control functionalities to ensure optimum generation, distribution, storage and use of energy.

3a. Buildings that comply with paragraph 2 or 3 shall be exempt from the requirements laid down in paragraph 1.

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.

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