**Reaction Paper to the new Article 12 "Infrastructure for sustainable mobility"**
of the Revision of the Energy Performance of Buildings Directive (2010/31/EU, EPBD)

**May 2022**

Last year, 2021, set a record for the battery electric vehicle (EV) sales, which achieved 10%[1] of total sales in the European automotive market. This trend is expected to continue to rise, driven by the new ambitious objectives set by the EU along with the national recovery plans implemented by Member States. However, the challenge remains immense. Indeed, the number of EVs is set to increase throughout the EU as a result of the proposed ban of internal combustion engines (ICE) sales by 2035, set out in the revision of the Regulation on the CO2 standards for cars and vans as part of the Fit for 55. Consumer demand for electric bicycles is also increasing strongly, with more than 4.5 million units sold in 2020, representing more than 20% of total sales.

If Europe is to succeed in its transition towards zero-emission mobility, the correct charging infrastructure needs to be put in place to push the EV market into achieving the required growth and ensuring a positive customer experience. Here, the deployment of private charging is of the utmost importance for encouraging the growth of electromobility, as 90% of all charging takes place at home or in the workplace. However, the current electromobility provisions of the Directive on the energy performance of buildings (EPBD) will fall significantly short in establishing the right conditions for the widespread adoption of EVs.

**The Platform for electromobility therefore fully supports the revision of the EPBD** presented in December 2021, as it is the main EU legislation for addressing private charging. The introduction of Art. 12 in the Commission's proposal, which relates to electromobility in buildings, is therefore central to supporting zero-emission mobility in the EU. **In particular, the Platform welcomes the:**

- ✓ Guarantee to the right-to-plug in all buildings and the removal of regulatory barriers (Art. 12. 8)
- ✓ Obligatory pre-cabling of all new and under-renovation buildings.
- ✓ Requirement for smart charging-readiness for all new and renovated chargers, as well as bidirectional chargers (V2G) when appropriate (Art. 12.6)
- ✓ Reinforcement of the charging requirements for new and renovated buildings (Art. 12.1, 12.2 and 12.4)
- ✓ Lowering of the existing parking space thresholds for pre-cabling and installation of charge points for all new and renovated non-residential buildings (Art. 12.1, 12. 4)

[1] https://insideevs.com/news/564628/europe-plugin-car-sales-2021/#:~:text=Thanks%20to%20the%20strong%20second,in%20ten%20was%20all%2Delectric.

- ✓ Requirements for bicycle parking (Art. 12.1 – 12.4)
- ✓ Suppression of the unnecessary exemptions, particularly those applied to SMEs in article 8(4).

***However, the Platform believes that further improvements are needed, and has therefore set out five recommendations:***

### 1. Clarify the scope of application of Art. 12.

The way Art. 12 is currently drafted could be interpreted as meaning that requirements only apply to parking spaces if 'the car park is physically adjacent to the building' but not if it is 'located inside the building'. We believe this is not the Commission's intention and therefore ask for further clarification.

### 2. Ensure charging solutions in existing buildings.

Some 80% of the EU's current building stock will still be in use by 2050, with the average annual major renovation rate just 2.7% for non-residential buildings and 1.5% for residential buildings.[2] As a result, the EC should ensure the installation of charging points in existing buildings.

***Key recommendations:***

- Extend the scope of Art. 12 to ensure requirements for installing charging points in **existing buildings**. Incentives or enforcement mechanisms, to make sure that the stakeholders involved comply, should be introduced.
- Avoid putting a **disproportionate burden on building owners** and tenants, by addressing the necessary elements to reduce the costs of private charging installation.
- Introduce per-cabling requirements for existing buildings:
  - 2027: all parking spaces in 15% of all buildings
  - 2030: all parking spaces in 30% of buildings (100% for all publicly owned buildings)
  - 2035: all parking spaces in all buildings.
- More ambitious charging point requirements for non-residential buildings (15% of parking spaces (2030), 30% (2035) applicable for all buildings with more than ten parking spaces.

### 3. Completing the charging requirements for new and under major renovation buildings.

The Platform asks to complete the charging requirements for new buildings and buildings undergoing renovation in order to mandate the deployment of smart-charging ready recharging points in all new and existing buildings.

***Key recommendations***:

- Include depot charging for **heavy- and light-duty vehicles**, i.e. extending the scope of the EPBD to cover new or renovated private depots, as well as logistic hubs and distribution centres. This would require them to be ready for future battery electric truck charging (350 kW+ chargers), so that trucks can conveniently charge while loading/unloading. This should include pre-equipment, as well as an appropriate grid connection.
- Charging facilities for e-bikes should match those for e-cars. There are two options:

[2] EPBD Impact Assessment.

1) recharging points for electric vehicles would be equipped with a household power socket, allowing for the easy charging of both e-bikes and e-scooters as well as certain types of L-category vehicles such as e-mopeds, or
2) deploy a separate bicycle charging infrastructure, with dedicated bicycle recharging points.

- The requirements should apply to all buildings that are undergoing a major renovation, regardless of whether the car park is included in the renovation measures.
- Greater ambition for parking spaces for non-residential buildings; there should be a minimum of 50% of parking spaces with charging points.

### 4. Reinforce the deployment of smart charging functionalities

The development of smart charging and bidirectional charging (V2G) in buildings is an opportunity for EV users. It provides a superior charging experience and reduces the consumers' electricity bill. Indeed, in France, on average with V2G, the annual cost of recharging an electric vehicle is 240€/year, compared to 420€/year without smart charging functionalities.[3] The Commission has recognised, in its AFIR Impact Assessment, that every smart recharging point could on average create a system benefit of more than 100€/year by 2030.[4] Smart charging also reintegrates electricity surpluses into the grids (V2G) and/or reuse it in the buildings (V2B) and homes (V2H), as well as supporting the uptake of electromobility. It can also create synergies with renewable energies, by integrating them into the electricity grids and providing flexibility services to the system. Furthermore, smart charging complements the right-to-plug by ensuring that charging points optimise the use of the grid capacity of a building and removes the argument that grid connections need to be reinforced.

***Key recommendations***:

- Ensure that all newly installed chargers in buildings are capable of **smart charging**.
- Ensure **consistency** in the definitions and provisions on smart charging set in the revision of the EPBD with those proposed in the new Regulation on the deployment of alternative fuels infrastructure - which is replacing the current AFI Directive 2014/94/EU (in Art. 2 and 5) - and in the revision of the Renewable Energy Directive.
- Ensure the recognition of mobile storage in the European energy framework.
- Clarify that **bidirectional charging (Art. 12. 6) should be encouraged when demonstrating a positive socioeconomic impact and contributing to system efficiency.** Co-legislators should also address any remaining barriers for vehicle-to-grid technologies.

### 5. Reinforce the measures to ensure pre-cabling

Pre-cabling of buildings should refer to both the technical cabling (cable path, technical sheaths, drilling) and the electrical pre-equipment in collective electrical installations (switchboard, horizontal electrical column, bus cable).

The comprehensive pre-cabling of buildings will enable the subsequent connection of individual charging points, at minimum cost, by simply installing a home charger. Furthermore, the pre-cabling

[3] [In French] RTE (2019), Report on the development of electromobility.
[4] AFIR Impact Assessment, Annexes, page 86.

of renovated buildings is a low hanging fruit, with little cost involved when done during the construction phase – which is the most efficient way to do it. Cabling after construction is completed is not cost-efficient and would lead to highly cumbersome discussions with project developers. Ducting infrastructure is a future-proof and cost-effective solution, the installation cost of which is minimal when compared to the total cost of constructing or renovating a building. By way of comparison, failure to ensure ducting infrastructure would entail costs that could be up to nine times higher if a building needs to be retrofitted.

***Key recommendations***:

- Introduce an **explicit definition of pre-cabling**, in order to encompass the electrical installation; it should not be limited to ducting infrastructure. To secure efficiency, electrical installations should be considered as 'technical building system' (Art. 2.6).
- Inform on the readiness of any building to safely install an EV charging point into the Energy Performance Certificates (Annex V).
- Integrate Energy Performance Certificates information about the status (safety and readiness) of electrical installations (Annex V)
- Set up local or regional **one-stop-shop** accessible websites and portals that combine various services, including the right to request with streamlined permits and installation procedures.[5]
- Ensure that requests for installing charging stations in collective properties do not exceed **three months**. (reinforce 'right to plug').
- Address the **administrative hurdles** (for example, EV charging as extra-legal benefit for employees) as well as collective action problems (such as split incentives between EV and non-EV drivers, renters vs. owners, employee vs. employer, etc.).
- Encourage Member States to **financially support** the installation of EV charging in buildings (including depots and logistic hubs for trucks, light-duty vehicles and buses). The Commission and its co-legislators, including the Member States, should also examine the possibilities of using new and current financial instruments to stimulate investment in private charging infrastructure.

[5] Best practices can be found here https://energy-cities.eu/wp-content/uploads/2020/07/INNOVATE_guide_final.pdf


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