

policy background:
Upgrading buildings
energy performance
and smartness

Paula Rey Garcia
Team leader Buildings & Finance
European Commission- DG ENERGY, Energy Efficiency unit

EPBD review: focus on buildings – for good reasons

FACTS



75% of the housing stock is energy inefficient, missing the benefits of increased renovation.



Renovation rates are too low and renovation depth is too shallow.



Need to accelerate and finance building renovation investments.



Tapping the potential of smart building technologies



THE PROPOSAL TO REVISE THE EPBD

BETTER BUILDINGS, FASTER

• **Smart-** supporting ICT, smart building technologies and infrastructure for e-mobility



Simpler



• Supportive of building renovation





More impactful provisions – Renovation strategies, With a long term vision and financing provisions



Long term building renovation strategies (Article 2a)

- Provisions on long-term strategies in Article 4 of Directive 2012/27/EU (EED) in the EPBD moved in a new article 2a.
- Completed by 2 new paragraphs:
 - Vision of a decarbonised building stock by 2050;
 - Smart Finance for Smart Buildings approach to mobilisation of investment.

Working in synergy with Article 7 of the EED



More supportive provisions building on Energy Performance Certificates – Financial incentives, transparency in energy performance calculation



provide a stronger link between financial measures in the Member States and energy efficiency improvements in the renovation of buildings (Article 10)

- In addition to energy performance, allow for tracking of actual energy consumption of all types of buildings in existing databases.
- For buildings frequently visited by the public (over 250 m2) the databases are required to contain this information and be regularly updated.
- For statistical and research purposes, aggregated and anonymised data shall be made available at least for public authorities.
- Clarification of the framework for the calculation of energy performance of buildings (Annex I)
 - Including stronger links with CEN standards.

Simpler and more impactful provisions – Inspections



Inspections on heating & air-conditioning systems are updated (Articles 14 and 15)

- Reduced administrative burden,
- Focus on medium to large buildings,
- Leveraging the effectiveness of electronic monitoring.
- New thresholds introduced:
 - Apartment block with central systems: 100 kW
 - Non-residential buildings: 250 MWh/year primary energy
- Electronic monitoring alternative to inspections
 Deletion of (existing) alternative measures based on advice



Smarter provisions – Technical Building Systems



An updated definition of Technical Building Systems (TBS) and additional provisions to better documenting the initial performance of technical building systems and maintain their operational performance over time

- Extending the scope of TBS to building automation and control, on-site electricity generation, on-site infrastructure for electromobility (Article 2(3))
- System requirements for new, replaced and upgraded TBS (article 8(1)) and tracing, documenting and passing on to the building owner the energy performance of technical building systems following installation, replacement or upgrade (+ inclusion in the national energy certificate database) (Article 8(5)).



Smarter provisions – Electro-mobility



Additional provisions to support the deployment of the EU infrastructure for electro-mobility

- Installation of recharging points (at least 1 every 10 parking spaces) in non-residential buildings with more than 10 parking spaces. The provision applies to new buildings and buildings undergoing major renovation, and, from 2025, to all non-residential buildings (Article 8(2))
- Pre-cabling of every parking space in new or major renovation of residential buildings with more than 10 parking spaces (Article 8(3))
- Some exemptions for buildings already covered by the current legislation and of buildings owned and used by SMEs (article 8(4))



Smarter provisions – Smart readiness indicator



New article 8(6) proposes introducing a Smart Readiness Indicator for buildings.

- Will characterize the ability of a building to manage itself,
- To interact with its occupants,
- And to take part in demand response and contribute to smooth, safe and optimal operation of connected energy assets.
- Progress towards 'smarter' building systems can support a more efficient implementation of the EPBD and result in additional benefits for building users, energy consumers and future grids.
- The **Smart Readiness Indicator** will support the uptake of technical innovation in the building sector, where there is a lack of investment despite short payback periods.



THE "SMART FINANCE FOR SMART BUILDINGS" INITIATIVE

MAJOR GOAL - improve investment climate for energy efficiency

More effective use of public funds

- Deploying Financial Instruments and flexible energy efficiency and renewable financing platforms
- Building on EFSI II blending with ESIF funds



Assistance and aggregation

- Supporting the project pipeline at EU and local level
- Project Development Assistance facilities
- "One-stop-shops"



De-risking

- Understanding the risks and benefits for financiers and investors
- The De-risking Energy Efficiency Platform
- Commonly accepted underwriting framework









Paula Rey Garcia Team leader Buildings & Finance Energy Efficiency Unit DG ENER, European Commission

https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumercentred-clean-energy-transition