

Stakeholder workshop #3 for the revision of the Energy Performance of Buildings Directive 2010/31/EU: Strengthening building information tools (with focus on EPC)

Answers by the European Copper Institute (ECI)

1. What is needed to strengthen the information role of EPCs?

An important topic missing in the questions is the long validity time (10y) or in other words, the limited refresh rates of EPCs.

More frequent updates and more dynamic use of EPCs would improve the real value of EPCs as an information source: (1) improving the usability for the end-user; (2) de-risking investments thanks to improved credibility and reliability (and that way accelerating renovation); and (3) monitoring and evaluation tool for the impact of building policies.

The increased use of digital metering, Building Automation and Control Systems (BACS) and Building Energy Management Systems (BEMS) would support this more dynamic use of EPCs with only limited financial and human resources needed.

To facilitate a more dynamic use of EPCs, capacity building is crucial to raising public and investor awareness and technical innovation (digitalization) should be used for effective operation without increasing costs.

Several MSs have initiated frequently updated EPC schemes reflecting the variability of performance assessment in design and built stage (As-Built certificates) of the construction project, but such approach should be extended towards the entire life time of buildings.

Should the EPC include additional information compared to the current version? If so: what additional information?

Include non-energy benefits of improved energy performance, such as safety, indoor air quality, and comfort:

- **The compliance of the electrical installation to (future-proof) safety standards.** Knowing that 30% of domestic fires have an electrical source (FEEDS report, March 20202), coupling inspection of domestic electrical installations to EPC should be a prerequisite. Indeed: the integration of highly efficient equipment or on-site renewables can be unsafe with obsolete electrical installations. Moreover, while the energy transition, decarbonisation and energy performance will drive electrification, the readiness of existing electrical installations is not proven in the EU domestic building stock (132 million of dwellings are concerned). Considering also that vulnerable communities including citizens suffering from energy poverty are more sensitive to electrical safety concerns, it is crucial to improve electrical safety in domestic buildings.
- **The building performance in final energy and in GHG emissions,** as well as breakdown of different energy uses (e.g. heating, hot water, ventilation, lighting...) and generation of renewable energy to drive full decarbonisation.
- **A comprehensive assessment of the demand-side flexibility potential of the building, including storage and on-site renewables and smart charging for electric vehicles.** A close link to SRI is therefore required. If connected to the system, end-use sectors can become significant flexibility assets that enable renewable integration, reduce total system costs, while empowering consumers.

What should be the linkage between EPCs and other schemes? (e.g. Building Renovation Passports, SRI, LEVEL(s), EU Green Taxonomy)

Strong link with Building Renovation Passports as they provide a clear trajectory towards staged deep renovation, indicating the EPC over time.

Strong link with SRI as it puts buildings at the centre of the wider smart and secure energy system. Where the EPC still has a static approach of looking at a building as a mere passive energy consumer, the systems holds the promise (by linking it to SRI) to look at buildings as an active node in the energy system, also providing grid stability options (demand side flexibility, storage) and renewable energy sources.

Whole life cycle emissions indicator should play a key role in the future and link to LEVEL(s) as an assessment and reporting framework that provides a common language for sustainability performance of buildings should be established. Correct modelling (inclusion of the recycling potential of building products at the end-of-life phase, inclusion of module D in all calculations) and use of data is critical. Mature methodologies for whole life cycle emissions at building level and interlinkages with product level legislation (CPR) are needed. Environmental Product Declarations (EPD) are based on robust LCA methodologies and are well established. They are available for many construction products therefore whole life cycle emissions indicators at both product and building levels across all related legislations should be based on standards (EN 15978, EN 15804), such as the Life cycle Global Warming Potential in LEVEL(s).

Industry and other stakeholders (architects, regulators) need time for preparation and too early adoption of measures to report on whole life-cycle carbon emissions from buildings may also risk diluting the strength of the EPBD in improving energy performance of buildings while making its implementation for MS more complex.

Strong link with the EU Green Taxonomy. EPC should be driving sustainable financing in the construction sector. Strengthen the role of EPC for renovation incentives by linking them to financing mechanisms, eg. by comparing the EPCs issued before and after renovation to determine energy savings achieved.

Important is also link to Digital Building Logbook as a dynamic tool that can include administrative documents, plans, technical building systems, traceability, and characteristics of construction materials (material or product passport important to boost circularity) and performance data such as operational energy use.

How can we improve the value of the recommendations in EPCs?

Training and education of providers of ECP audits on the many energy saving options that go beyond the usual suspects, but are highly cost-effective and provide a vast decarbonisation potential (such as building automation and controls, waste-water heat recovery, solar heat, ...).

2. What is needed to improve the quality of EPC?

Is there a need to strengthen the quality control of EPCs? How?

The quality of the EPCs is crucial for its acceptance. It should provide realistic information about the actual building energy consumption. Introducing a new requirement for measurement and verification of energy performance within the first year of building operation would not be onerous and the potential increase in costs can be avoided by integration of digital tools and BACS into the EPC scheme.

Is there a need to strengthen the requirements to ensure the presence of EPCs in advertisement media? How?

It should be mandatory to indicate selected data from EPCs when advertising all buildings or dwellings for sale or for rent. Fair and clear information should be provided to support stakeholders in their decision making.

How could we encourage the use of metered data and smart meters in connection to the EPC and EPC databases?

Broaden the scope of the current BACS provisions as an alternative to physical inspections to a wider share of the building stock.

Should there be an obligation for Member States to set up national EPC databases?

Yes and such databases should provide accurate data on the actual energy consumption to become a real supportive tool for policy making. MS therefore should be allowed to track the actual energy consumption (for buildings frequently visited by the public) and anonymized data for other buildings covered by the database.

Which kind of public access, regular reporting or other features should an EPC database provide? (including links with the Building Stock Observatory)

A digital EPC database could be enriched with a benchmarking-tool and a financing calculator (adopted to national markets). Building owners should have a clear idea on the legacy of their building in the transformation towards fully decarbonised in 2050, which would make energy performance a real selling proposition.

3. What is needed to improve the coverage of EPC?

Is there a need for additional trigger points so to increase the number of buildings with EPCs? If so, which ones?

The implementation of the EPC has been successful for buildings being sold but the rental market is slower in its uptake. Enforcement and legislation should focus on the rental sector. Tailormade validity period of EPCs based on the energy saving potential of building. The validity of the EPC (now max. 10 years) could be reduced (eg. to five years) according to major energy savings with a simple payback time of less than 10 years identified in the EPC. Good practice exists in Denmark.

What should be the linkage between EPCs and Minimum Energy Performance Standards?

EPCs, such as all energy labelling schemes, are the “market-pull instruments” that stimulate market demand for energy efficient buildings. Hence the importance of high reliability and reflecting actual energy performance. They drive optimal user behaviour (in design, purchase, and use phases of a construction project). MEPS is the “market-push” for more and more ambitious renovations. Both schemes should converge towards full decarbonisation in 2050.

Is there a need for increased harmonization of EPC levels, between Member States? Is there a need for increased harmonization of EPC schemes, systems and procedures between Member States?

Harmonisation is key to solve the current fragmentation of the EU market, creating barriers for the free circulation of services (e.g. experts must be accredited in each Member State) and additional costs and administrative burden to the industry (which at the end have to be supported by EU citizens).

05 May 2021
European Copper Institute
www.copperalliance.eu
Contact:
Robert Pintér
Manager, Green & Healthy Buildings Europe
email: robert.pinter@copperalliance.org