

# Position paper on the revision of the Energy Performance of Buildings Directive

## Why mandatory inspections and installer services are necessary

February 2017

GCP Europe welcomes the overdue recognition by policy makers given to long-term strategies for renovations of new and existing building stock. GCP Europe broadly agrees with the main goals of both the existing and proposed revision of the EU Energy Performance of Buildings Directive (EPBD), and yet ascertains that certain requirements can be improved and compliance enhanced.

### Our key messages

**We call on European and national policy makers to consider the following points during the ongoing EPBD revision:**

- 1. Make inspections mandatory as a main tool for achieving the goals of the EPBD, rather than providing scope for merely voluntary and hence potentially ineffective alternatives.**
- 2. Revise the proposed thresholds for inspecting heating systems in both residential and non-residential buildings – at present, these thresholds are too vaguely formulated to be workable and cover only a negligible part of the building stock.**
- 3. Ensure better enforcement of any inspection-related requirements as stipulated in Articles 14 and 15 to safeguard the overall goals and effectiveness of the EPBD.**

### 1. Making inspections mandatory and fit for purpose

GCP Europe fully supports the objectives laid down in the EPBD, which aims to reduce the energy consumption of buildings. However, national implementation of key requirements of this legislation with regards to inspections of heating, ventilation and air-conditioning systems has been sobering. Member States have opted for a plethora of alternative measures which neither fulfil the purpose of reducing energy consumption nor provide for regulatory clarity for installers involved in this sector<sup>1</sup>.

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<sup>1</sup>GCP Europe conducted in 2016 an internal enquiry among its members on national requirements with regards to building inspections: all respondents confirmed the insufficient and patchy implementation of the current EPBD at national level.

For instance, in Germany there is no existing obligation for inspections of heating systems, while air conditioning systems with a rated output of over 12 kW need to be inspected every 10 years. However, this mandatory measure fails to be a helpful tool as these inspections are often considered to be carried out ineffectively. Inspections of heating equipment in the form of the so-called “Heizungs-Check” (EN 15378) are even subsidised, but currently fail to significantly increase the number of end-consumers signing up for this inspection measure, despite the potential energy savings at hand<sup>2</sup>.

In the United Kingdom, installers lack a streamlined and clear template for carrying out inspections and conducting a proper calculation of the energy consumption in a given building. Inspections are therefore often viewed as flawed: non-invasive and with a distorted report as a result. Innovative smart(er) metering systems are not accompanied by mandatory inspections either. Moreover, the use of Energy Performance Certificates (EPCs) has proven to be difficult, as the UK calculation methodology is quite restrictive and would favour kWh/m<sup>2</sup> or a similar metric methodology.

In order to alleviate these shortcomings, **inspections should be made mandatory and a reference to standardisation of inspection procedures and the respective reports should be considered in Article 16**. Alternative or voluntary options should be allowed only in exceptional and well justified cases, for example when a specifically innovative solution is in use in a building.

Moreover, there is a delicate balance between the drive towards energy savings with increasingly energy-efficient buildings and Indoor Environment Quality (IEQ). As buildings are getting tighter and better insulated in order to reduce energy losses and increase envelope performance, the air exchange by infiltration goes down to zero. Without a dedicated ventilation system, this degrades the IEQ with adverse effects on health, productivity and comfort. Therefore, IEQ should be appropriately considered in the revised EPBD.

In this context, we call for **mandatory inspections in Article 15 to include ventilation and air-conditioning systems**, also due to its enormous potential for energy savings in general<sup>3</sup>. Ultimately, only comprehensive mandatory inspections of energy as well as ventilation and air-conditioning systems would help achieve the full energy efficiency and emission savings potential of buildings.

## **2. Proper thresholds for inspecting heating systems in buildings**

The current thresholds for inspecting heating systems in both residential and non-residential buildings are too vaguely formulated to be workable and would cover only a negligible part of the building stock. For heating systems in residential buildings, the proposed 100kW threshold covers buildings over 1,600m<sup>2</sup> in size; in non-residential buildings the reference of 250MWh means a size of over 2,500m<sup>2</sup> which in both cases would mean only huge structures were covered.

With regards to AC systems, the 100kW threshold in residential buildings is out of range, as no system is likely to be inspected at this size. The 250MWh reference covers systems in non-residential buildings starting at 10,000m<sup>3</sup>/h, which again would cover only huge constructions. **We therefore urge a revision of these thresholds to make them purposeful in the spirit of the EPBD Directive.**

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<sup>2</sup> In Germany the so-called “Heizungsetikett” for boilers older than 15 years has been compulsory since 1 January 2017.

<sup>3</sup> Technical report of Dresden Institute of Air Handling and Refrigeration (ILK), 2014: <https://www.irbnet.de/daten/rswb/14019025698.pdf>

In addition to such revised thresholds, we call for the **implementation of a concrete time frame for inspections of energy-related systems in buildings. National best practice has proven that 10 years is a feasible timeframe for all stakeholders involved.** This long-term timeframe should strike the balance between the practicality and proportionality of such a requirement, while avoiding an unnecessary burden on installers and associated costs being passed onto home owners or landlords.

### **3. Requirements related to inspections must be properly enforced to reap the full potential of energy efficiency and Indoor Environment Quality**

As outlined above, building inspections are not properly considered effective tools to achieve the goals of the EPBD. Inspections and subsequent installer advice are indeed the primary awareness-raisers for better technical building systems, system integration and innovative smart controls. In this context, the EPBD revision rightly emphasises the importance and supervision of Energy Performance Certificates (EPCs). While improving the effectiveness of EPCs is welcome, these certificates should not be mistaken as a substitute for badly implemented inspections of technical building systems.

Inspections aim to scrutinise the status of technical building systems regularly under working conditions, while EPCs address the system only at given occasions (sale, tenancy, etc.). EPCs do not help to increase users' awareness of necessary energy-related maintenance or modernisation, as they only have an effect on the decision to buy or rent. Therefore, inspection requirements should be included in EPCs and be highlighted for users' awareness.

**Consequently, any reference to EPCs in the revised Directive should stipulate the inspection requirements of Articles 14 and 15. Moreover, a detailed template with requirements for inspections is needed for the proper use of EPCs.** If considered as a comprehensive package, the use of EPCs, regular and mandatory inspections, and continuous commissioning of technical building systems will unlock the full potential of energy savings and Indoor Environment Quality.

Moreover, we welcome the idea to develop a general "smartness indicator" as stated in the EPBD revision. Such a harmonised smartness indicator would be a useful tool to support the transition to a smart energy system; however, the proposal contains little indication on how such an indicator will be implemented in practice. More details on what exactly the indicator would cover and, importantly, how it would be implemented by the Commission through the accompanying delegated act are needed.

To this end, **we call for an open dialogue and involvement of GCP Europe when conceiving the respective delegated act on this indicator to ensure appropriate industry input.** Moreover, any proposal on such an indicator should duly take into account the work on smart appliances already taken forward under the Ecodesign Directive and also the ongoing developments on energy storage solutions.