

## ECODESIGN LOT 38

### eu.bac feedback

eu.bac, European Building Automation and Controls Association thanks DG ENER and the Study team for delivering the final report on the preparatory study for Building Automation and Control Systems (BACS) and welcomes the opportunity to provide our feedback. We appreciate the Study Team's findings that increased use of advanced BACS technologies will ensure higher energy savings. We look forward to further cooperating with the Commission in achieving EU's energy efficiency objectives. Below are our suggestions on the most prospective nearer and longer-term policy options highlighted by the study team during the consultation forum.

#### **Gaps in the EPBD and other legislation**

Importantly, we want to stress that as the final report has recognised the overall benefit of installed BACS on energy and CO<sub>2</sub> savings vastly outweighs any performance requirements set on BACS themselves. Out of the many policy options proposed, the ones which are expected to deliver the highest savings until 2040 are the ones that concern implementing the highest level of BACS (55Mt CO<sub>2</sub> Class B scenario and 267 TWh (81Mt CO<sub>2</sub>) Class A scenario). Therefore we believe special care should be taken to use these findings in the current EPBD revision. BACS requirements should be strengthened and open-ended loopholes should be closed as proposed in the report.

#### **Minimum accuracy limits of room temperature controllers and thermostats**

While we support the proposal in general to introduce accuracy limits for room temperature controllers and thermostats, there currently are no European standards providing a technology-neutral testing method for the accuracy of room temperature controllers. Therefore, similarly to TRVs, this should be considered within the scope of a future investigation, while the issue of technology-neutral standardisation could be addressed in an intermediate standardisation review.

#### **Minimum functionality for the controllability of room temperature schedulers**

We welcome the proposal for the controllability of room temperature schedulers.

#### **Information requirements on accuracy, internal power consumption and communication protocols**

eu.bac supports the introduction of broad information requirements. Beyond the proposal, we believe that drift, the reaction time of the sensor and the integration in the housing should also be declared. Nevertheless, we welcome the report's recognition of the need to develop technology-neutral standards and testing infrastructure before information requirements on accuracy and internal power consumption are introduced. When such a requirement is introduced, it is important to define how consumption is measured to ensure it can be compared across different products. Finally, we endorse the requirement for the technical interoperability capabilities of packaged BACS products to be reported while a catalogue of industry-supported standard communication protocols is developed for mandatory interoperability requirements.

#### **Minimum control accuracy limits for TRVs**

We welcome the proposal for accuracy limits on TRVs to be considered within the scope of a future investigation, however, the issue of technology-neutral standardisation should be addressed in an intermediate standardisation review.

### **Minimum control accuracy limits for other sensors**

Additionally, we believe that accuracy limits for CO<sub>2</sub>, VOC and humidity sensors should also be addressed in the scope a future investigation.

### **Minimum functionality requirements for BEMS KPIs, I/F, minimum compatibility with class C/B EN 15232, lifetime and interoperability**

BEMS KPIs: We support the introduction of this minimum functionality requirement based on EN 15232 and EN 16947 and involve the BACS industry in defining it. We encourage the use of the eu.bac System Certification Scheme - Part 4: "Specification of Key Performance Indicators" as a basis for such a requirement.

Minimum compatibility with EN 15232 classes: While we welcome the general notion, comparison of a product with a benchmark building would be too complicated and not yield useful results. With the formulation of this idea as included in the report, we'd like to highlight how product and functionality testing is needed, in most cases, to assess class B or class A compatibility. The quality of underlying functionalities (needed to reach class B or A) are important to ensure energy savings and proper functioning. For example, a manufacturer may claim to offer an occupant detection functionality, but the quality may be very poor, e.g. with false triggering, leading to excess energy use. We, therefore, suggest recommending standards and product functionality testing of class B and A capabilities.

Lifetime: We support the development of a requirement for a maintenance plan, however, the product/system owner should be responsible for ensuring this plan is followed. Nevertheless if a scoring system is to be developed (as outlined in option 2) the assessment method should be formulated in cooperation with the industry, recognising that there is a vast array of technologies among BACS and therefore several methods should be created for different product groupings. It should be recognised that the development of these methods and the eventual assessment will take years. Manufacturers need time, often starting from scratch, to define priority parts, and assess the product and support related criteria following EN 45554 and the BACS specific methods developed. Focusing on a reduced set of components as proposed by the study would not have a substantial effect as this is already part of the EN 45554 method of focusing with priority parts and would still necessitate the steps mentioned above. Finally, as the study recognises "EN 45554 is hardware-oriented and does not address the effective service lifetime of the software".

Interoperability: eu.bac supports this minimum functionality requirement as long as there is a catalogue of industry-supported standard communication protocols. We recommend that packaged BACS products should support at least one BACS industry-accepted open interoperable communication protocol.

### **Information on compatibility with the EN15232 energy performance of BACS put into service**

As in the analogous notion discussed earlier we suggest recommending standards and product functionality testing of class B and A capabilities rather than the compatibility with an EU27 benchmark building.

### **Information on lifetime, material content and related factors**

We support the idea of introducing these information requirements, however as stated above any assessment method should be formulated in cooperation with the industry, recognising that there is

a vast array of technologies among BACS and therefore several methods should be created for different product groupings.

Similar considerations should be taken into account for the proposal of maintaining the availability of components for repair. This requirement should be contingent on the type of BACS product in question. As described above, the assessment methods should differ for different types of products. For some products this could have the opposite effect of the intended Ecodesign goal and replacing the whole product instead of storing repair parts would make more sense. Storing parts for discontinued products could lead to scrap and material waste as well as material and environmental costs associated with long term storage and transport. Additionally, some producers manufacture their products only made-to-order for the specific design case and this requirement would entail substantial overproduction.

We welcome the requirement to disclose rare earth materials in the datasheet as long as certain feasible minimum thresholds for detection are agreed upon.

#### **Information on energy performance for BACS put into service**

We support the report's conclusions that currently, the performance classes of BACS installed are difficult to assess due to the Member States reluctance to enforce the conformity of installed BACS with the EN15232 classes. We, therefore, endorse the information requirements to be set that oblige the EN15232 energy performance class of the BACS products put into service to be declared by the designers/specifiers. This would facilitate the use of higher-level BACS through market forces and the ability of Member States to set meaningful measures for BACS energy performance under the EPBD.

#### **Labelling of energy performance for BACS products put into service**

eu.bac believes that information requirements on the energy performance of BACS as specified in the previous point and other characteristics, such as CO2 footprint should be introduced first. Subsequently, broader requirements on labelling could be developed in cooperation with the industry.